## **Legend:** New Text Removed Text Unchanged Text Moved Text Section

The following is a summary of the material risks and uncertainties that could cause our business, financial condition or operating results to be adversely impacted. We encourage you to carefully review the full risk factors contained in Item 1A. " Risk Factors" herein in their entirety for additional information regarding these risks and uncertainties. Risks Relating to Our Business and Our Industry • Investments in future markets of potential significant growth may not result in the expected return. • Our competitive position depends on our ability to develop new products and processes. • Our products may contain defects that are not detected until deployed, which could increase our costs, reduce our revenues, cause us to lose key customers, or expose us to litigation related to our products. • Our competitive position may still require significant investments. • We may be unable to successfully implement our acquisitions strategy or integrate acquired companies and personnel with existing operations. Although we expect that our acquisitions will result in cost savings, synergies, and other benefits, we may not realize those benefits, or be able to retain those benefits even if realized. • Our future success depends on continued international sales, and our global operations are complex and present multiple challenges to manage. • We may fail to accurately estimate the size..... in foreign exchange losses. • We are subject to complex and rapidly changing import and export regulations which could limit our sales and decrease our profitability, and we may be subject to legal and regulatory consequences if we do not comply with applicable export control laws and regulations. • We may fail to accurately estimate the size and growth rate of our markets and our customers' demands. We may encounter increased competition, and we may fail to accurately estimate our competitors' or our customers' willingness and capability to backward integrate into our competencies and thereby displace us. A significant portion of our business may be subject to cyclical market factors. The long sales cycles for many of our products may cause us to incur significant expenses. We have entered into supply agreements that commit us to supply products on specified terms. We depend on highly complex manufacturing processes that require feeder strategic materials, components, and products from limited sources of supply. Delays in transportation of products and possible shortages of critical raw materials, parts, equipment and other resources may adversely affect our results of operations. We participate in the microelectronics semiconductor capital equipment market, which requires significant research and development expenses to develop and maintain products. and a failure to achieve market acceptance for our products could have a significant negative impact on our business and results of operations. There are risks associated with our participation in the flat panel display capital equipment market, including as a result of there being a relatively limited number of end customer manufacturers. Increases in commodity prices and diminished availability of rare earth minerals and noble gases may adversely affect our results of operations and financial condition. • Changes in trade policies, such as increased import duties, could increase the costs of goods imported into the United States or China . • A widespread health crisis could materially and adversely affect our business, financial condition, and results of operations. • Global economic downturns may adversely affect our business, operating results, and financial condition. • Foreign currency risk may negatively affect our revenues, cost of sales, and operating margins, and could result in foreign exchange losses. • Inflation and increased borrowing costs could impact our cash flows and profitability. • Our current credit agreement and any other credit or similar agreements into which we may enter in the future may restrict our operations, particularly our ability to respond to changes or to take certain actions regarding our business. • Any inability to access financial markets from time to time to raise required capital, finance our working capital requirements or our acquisition strategies, or otherwise support our liquidity needs could negatively impact our ability to finance our operations, meet certain obligations, or implement our growth strategy. • There are limitations on the protection of our intellectual property, and we may from time to time be involved in costly intellectual property litigation or indemnification. • Our global operations are subject to complex and rapidly changing legal and regulatory requirements. • We may face particular data privacy and security and data protection risks due to laws and regulations regulating the protection or security of personal and other sensitive data. • Data breach incidents and breakdowns of information and communication technologies could disrupt our operations. subject us to legal claims, and impact our financial results. • We use and generate potentially hazardous substances that are subject to stringent environmental and safety regulations. • We have a substantial amount of debt, which could adversely affect our business, financial condition, or results of operations and prevent us from fulfilling our debt- related obligations. • The agreements that govern our senior credit facilities and our 5.000 % senior notes due 2029 Notes contain various covenants that impose restrictions on our business, which may affect our ability to operate our businesses. • Unfavorable changes in tax rates, tax liabilities, or tax accounting rules could negatively affect future results. • Natural disasters or other global or regional catastrophic events could disrupt our operations, give rise to substantial environmental hazards, and adversely affect our results. Delays in transportation Russia's invasion of Ukraine products and possible shortages of critical raw materials, parts, equipment and the other resources resulting conflict has had a negative impact on our business, may adversely affect continue to negatively impact our business and may have a negative impact on our results of operations. • Our success requires us to attract, retain, and develop key personnel and maintain good relations with our employees. • We contract with a number of large end-user service providers and product companies that have considerable bargaining power, which may require us to agree to terms and conditions that could have an adverse effect on our business or ability to recognize revenues. • The adoption of new We may be adversely affected by climate change regulations may result in increased financial costs and / or losses. Some of our business units depend from time to time on large purchases from a few significant large customers, and any loss, cancellation, reduction, or delay in purchases by these large customers could harm the longevity of the business . • Actions that we are taking to restructure our business in alignment with our strategic priorities may not be as effective as anticipated.

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• We have announced that we are reviewing strategic alternatives for our silicon carbide business, but there can be no
assurance that a strategic transaction will be completed or that we will achieve the expected benefits of any strategic
transaction that we determine to pursue. • Our operations may be adversely affected if we are unable to manufacture certain
products in our manufacturing facilities. • Failure to accurately forecast our customer demands and our resulting revenues
could result in additional charges for obsolete or excess inventories or noncancellable purchase commitments. • Our markets are
unpredictable and characterized by rapid technological changes and evolving standards demanding a significant investment in
research and development, and, if we fail to address changing market conditions, our business and operating results will be
harmed. • If our goodwill or intangible assets become impaired, we may be required to record a significant charge to earnings. •
If we fail to maintain an effective system of disclosure controls and internal control over financial reporting, our ability to
produce timely and accurate financial statements or comply with applicable regulations could be impaired. Risks Relating to
Our Capital Stock • The trading prices for our securities common stock have been volatile in the past and may be volatile in the
future. • Provisions in our Amended and Restated Articles of Incorporation and Amended and Restated Bylaws and the
Pennsylvania Business Corporation Law Associations Code (the "Code") may delay or prevent our acquisition by a third
party, which could also reduce the market price of our capital stock. • We do not currently intend to pay dividends on our
common stock - holders will benefit from an investment in our common stock only if it appreciates in value and by the
intended anti- dilution actions of our share- buyback program. • Our ability to declare and pay dividends on our capital stock
may be limited, including by the terms of our existing Credit Agreement. • Trading in preferred stock that we have issued may
adversely affect the market price of our common stock. • Our common stock is subordinate to our existing and future
indebtedness; the Mandatory Convertible Preferred Stock and Series B Preferred Stock; and any other preferred stock we may
issue in the future. Our <del>Mandatory Convertible Preferred Stock and</del> Series B Preferred Stock <del>rank <mark>ranks</mark> j</del>unior to all of our and
our subsidiaries' consolidated liabilities. • Our board Board of directors Directors can issue, without approval of the holders of
our common stock, preferred stock with voting and conversion rights that could adversely affect the voting power of the holders
of our common stock, the rights of holders of shares of our capital stock, or the market price of our capital stock. • The
redemption rights of the holders of Series B Preferred Stock may result in the use of our cash in such a way that could adversely
affect our business, financial condition or results of operations. • Holders of our Series B Preferred Stock can exercise significant
control over us, which could limit the ability of holders of our other capital stock to influence the outcome of key transactions,
including a change of control. • Reports published by securities or industry analysts, freelance bloggers and credit rating
agencies, including projections in those reports that exceed our actual results, could adversely affect our share price and trading
volume. • Regulatory actions may adversely affect the trading price and liquidity of the Mandatory Convertible Preferred Stock.
• Holders of Mandatory Convertible Preferred Stock have no voting rights with respect to the Mandatory Convertible Preferred
Stock, except under limited circumstances. • We depend on our subsidiaries for cash to fund our operations and expenses,
including future dividend payments with respect to our outstanding preferred stock. PART I Item 1. BUSINESS Definitions
Coherent Corp. H-VI Incorporated ("Coherent H-VI," the "Company," "we," "us," or "our") was incorporated, a global leader in Pennsylvania materials, networking, and lasers, is a vertically integrated manufacturing company that
develops, manufactures, and markets engineered materials, optoelectronic components and devices, and lasers for use in
4971-the industrial, communications, electronics, and instrumentation markets. Our headquarters are located at 375
Saxonburg Boulevard, Saxonburg, Pennsylvania 16056, USA. Our telephone number is 1-724-352-4455. Reference to "
Coherent II-VI, "the "Company," "we, "us," or "our" in this Annual Report on Form 10-K, unless the context requires
otherwise, refers to Coherent Corp. II-VI Incorporated and its wholly owned subsidiaries. The Company's name is
pronounced "Two Six Incorporated." The name II-VI refers to Groups II and VI of the periodic table of elements from which
II-VI originally designed and produced infrared optics for high-power CO2 lasers used in materials processing. The majority of
our revenues are attributable to the sale of engineered materials and optoelectronic components, devices, and subsystems for the
optical communications, industrial, acrospace and defense, and consumer electronics markets. Reference to "fiscal," "fiscal
year," or "FY" means our fiscal year ended June 30 for the year referenced. As of June 30, 2022, the Company's operations
were organized into two reporting segments: (i) Photonic Solutions and (ii) Compound Semiconductors. See below for a more
detailed description of each of these segments. On July 1, 2022 the Company completed the previously announced acquisition
of Coherent, Inc. ("Coherent"), pursuant to the Agreement and Plan of Merger, dated March 25, 2021 (the "Merger Agreement
"), by and among the Company, Coherent and Watson Merger Sub Inc. (the "Merger"). In connection with the Merger,
effective July 1, 2022, the Company realigned its organizational structure into three reporting segments for the purpose of
making operational decisions and assessing financial performance: (i) Materials, which previously was referred to as our
Compound Semiconductors segment (ii) Networking, which previously was referred to as our Photonic Solutions segment, and
(iii) Lasers. The Company will report financial information for these new reporting segments in fiscal 2023. This change in
reporting is to occur beginning with periods commencing July 1, 2022. The following defined terms are used in this Annual
Report on Form 10- K: <del>augmented reality <mark>artificial intelligence</mark> ( AR-<mark>AI</mark> ); bismuth telluride (Bi2Te3); cadmium telluride</del>
(CdTe); carbon dioxide (CO2); Centers for Discase Control (CDC); chemical vapor deposition (CVD) of materials including
diamond; continuous wave (CW); datacenter interconnect (DCI); dense wavelength division multiplexing (DWDM); digital
signal processors (DSPs); diversity, equity, and inclusion (DEI); edge- emitting lasers (EELs); extreme- ultraviolet (EUV)
lithography; fifth- generation (5G) wireless; fourth- generation (4G) wireless; gallium arsenide (GaAs); gallium antimonide
(GaSb), gallium nitride (GaN); Geostationary Operational Environment Satellite Program (GOES); gigabit Ethernet (GbE);
gigabit per second (Gbps); high- definition multimedia interface (HDMI); high- electron- mobility transistor (HEMT); high-
energy laser (HEL); indium phosphide (InP); infrared (IR); integrated circuit (IC); intellectual property (IP); kilowatt (kW);
light detection and ranging (LiDAR); liquid crystal (LC); liquid crystal on silicon (LCOS LCOS); machine learning (ML);
metal- oxide- semiconductor field- effect transistor (MOSFET); millimeters (mm); nanometers (nm); near- infrared (NIR);
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optical channel monitor (OCM); optoelectronic chip hybrid integration platform (OCHIP); original equipment manufacturer
(OEM); optical time- domain reflectometer (OTDR); polymerase chain reaction (PCR); radio frequency (RF); reconfigurable
optical add / drop multiplexer (ROADM); research and development (R & D); research, development, and engineering (RD &
E); silicon carbide (SiC); terabit per second (Tbps); three- dimensional (3D); transimpedance amplifier (TIA-); ultraviolet (UV);
vertical- cavity surface- emitting laser (VCSEL); virtual reality (VR); wavelength division multiplexing (WDM); wavelength
selective switching (WSS); zinc selenide (ZnSe); and zinc sulfide (ZnS). General Description of Business We develop,
manufacture, and market engineered materials, optoelectronic components - and devices, optical and laser subsystems and
systems for use in optical the industrial, communications, industrial, acrospace and defense, consumer electronics,
semiconductor capital equipment, life sciences, and instrumentation automotive applications end markets. We use advanced
engineered materials growth technologies and proprietary high-precision fabrication, microassembly, optical thin-film coating,
and electronic integration to manufacture complex optoelectronic devices and modules. Our products are deployed in a variety
of applications market verticals, including (i) precision manufacturing optical, data, and wireless communications products;
(ii) semiconductor capital equipment laser cutting, welding, marking, and other materials processing operations; (iii) display
capital equipment 3D sensing consumer applications; (iv) aerospace and & defense applications including intelligence,
surveillance, and reconnaissance; (v) telecommunication networks semiconductor processing tools; and (vi) thermoelectric
ecooling data communication networks; (vii) consumer electronics; (viii) automotive; (ix) life sciences; and (x) scientific
instruments. We generate almost all of our revenues, earnings, and cash flows from developing, manufacturing, and
marketing a broad portfolio of products and services for our end markets. 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 original equipment manufacturers; laser end
users; system integrators of high-power-generation solutions lasers; manufacturers of equipment and devices for the
industrial, communications, electronics, and instrumentation markets; U. S. government prime contractors; and various
U. S. government agencies. Through RD-R & E-D investments and its our strategic acquisitions, we have H-VI has expanded
its our portfolio of materials and product platforms. We have a strong core competency in bulk and epitaxial crystal
growth that enable differentiated products. We believe that the materials we grow and fabricate are differentiated by one or
a combination of unique optical, electrical, magnetic, thermal, and mechanical properties. Our H-VI's optics are shaped by
precision surfacing techniques to meet the most stringent requirements for flat or curved geometries, functionalized with smooth
or structured surfaces, or with patterned metallization. Proprietary processes developed at our global optical coating centers
differentiate our products' durability against HELs high-energy lasers and extreme operating environments. Optical coatings
also provide the desired spectral characteristics, ranging from the ultraviolet to the far- infrared. We II-VI leverages leverage
these capabilities to deliver miniature to large- scale precision optical assemblies, including those in combination with thermal-
management components, integrated electronics, and software. We II-VI also offers offer a broad portfolio of compound
semiconductor lasers that are used in a variety of applications in our end markets. These lasers enable optical signal
transmission, reception, and amplification in terrestrial and submarine communications networks; high- bit- rate server
connectivity between and within datacenters; optical communications network monitoring; materials processing; and fast and
accurate measurements in biomedical instruments and sensing in consumer electronics. H-VI We are a major supplier of
silicon carbide substrates for the power electronics market and for the wireless mobile market. We continues—continue
to improve its our operational capabilities, develop next-generation products, and invest in new technology platforms to drive
growth in the short term and the long term. With our strategic focus on fast-growing and sustainable markets, we II-VI pursues
- pursue its our mission of enabling the world to be safer, healthier, closer, and more efficient, and strives - strive to attain its
our vision of a world transformed through innovations vital to a better life today and the sustainability of future generations.
Acquisition and Background of Coherent, Inc. The acquisition of Coherent, Inc. ("Legacy Coherent"), one of the world ''s
leading providers of laser and optics-based product solutions and optics for microelectronics, closed life sciences, industrial
manufacturing, scientific and acrospace and defense markets, was acquired by II-VI on July 1, 2022. In For the full fiscal year
2023, Legacy Coherent is 's operations will be included in the combined company and renamed as the Lasers segment. The
Lasers segment's lasers and optics products serve industrial customers in semiconductor and display capital equipment,
to be rebranded precision manufacturing, and aerospace & defense, as well as instrumentation customers in life sciences
and scientific devices. Information Regarding Reporting Segments and Foreign Operations In connection with the
acquisition of Coherent Corp., Inc., effective July 1, 2022, the Company realigned its organizational structure into three
reporting segments for the purpose of making operational decisions and assessing financial performance: (i) Materials,
which previously was referred to as t<del>he our Compound Semiconductors segment; (ii) Networking, which previously was</del>
referred to as our Photonic Solutions segment; and (iii) Lasers segment. Effective July 1, 2022, the Company reports
financial information for these three segments. Financial data regarding our revenues, results of operations, reporting
segments, and international sales for the three years ended June 30, 2023, are set forth in the Consolidated Statements of
Earnings (Loss) and in Note 14. Segment - Except as otherwise indicated and Geographic Reporting to our Consolidated
Financial Statements, which are included in Item 8 of this Annual Report on Form 10- K, information about II- VI as of June
30, 2022 or any earlier date, or for any period ended June 30, 2022 or any earlier date, does not include any financial,
operational or other information regarding Coherent. Coherent delivers systems to the world's leading brands, innovators, and
researchers, all backed with a global service and support network. Since inception in 1966, Coherent has grown through internal
expansion and through strategic acquisitions of complementary businesses, technologies, intellectual property, manufacturing
processes, and product offerings. Coherent serves important end markets like microelectronics, precision manufacturing, and
instrumentation, as well as applications in aerospace and defense. The word" laser" is an aeronym for" light amplification by
stimulated emission of radiation." A laser emits an intense coherent beam of light with some unique and highly useful
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properties. Most importantly, a laser is orders of magnitude brighter than any lamp. As a result of its coherence, the beam can
be focused to a very small and intense spot, useful for applications requiring very high power densities including welding and
other materials processing procedures. The laser's high spatial resolution is also useful for microscopic imaging and inspection
applications. Laser light can be monochromatic — all of the beam energy is confined to a narrow wavelength band. Lasers can
produce the lasing action in the form of a gas, liquid, semiconductor, solid state crystal or fiber. Lasers can also be classified by
their output wavelength: ultraviolet, visible, infrared or wavelength tunable. Coherent manufactures all of these laser types, in
various options such as continuous wave, pulse duration, output power, beam dimensions, etc. Each application has its own
specific requirements in terms of laser performance. Coherent's key laser applications include: semiconductor wafer inspection;
manufacturing of advanced printed circuit boards; flat panel display manufacturing; solar cell production; medical and bio-
instrumentation; materials processing; metal cutting and welding; industrial process and quality control; marking; imaging and
printing; graphic arts and display; and research and development. For example, UV lasers are enabling the continuous move
towards miniaturization, which drives innovation and growth in many markets. In addition, the advent of industrial grade
ultrafast lasers continues to open up new applications for laser processing. 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, 2022, are set forth in the Consolidated Statements of Earnings (Loss) and in Note 14. Segment and
Geographic Reporting to our Consolidated Financial Statements, which are 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 – Risk Factors of this
Annual Report on Form 10- K related to our foreign operations, which are incorporated herein by reference. Bookings and
Backlog We define our bookings as customer orders received that are expected to be converted to revenues over the next 12
months. The Company reports as bookings only those orders that are expected to be converted into revenues within 12 months
from the end of the reporting period. Bookings are adjusted if changes in customer demands or production schedules cause the
expected time of a delivery to extend beyond 12 months. For the fiscal year ended June 30, 2022, our bookings were
approximately $ 4.3 billion, compared with bookings of approximately $ 3.3 billion for the fiscal year ended June 30, 2021.
We define our backlog as bookings that have not been converted to revenues by the end of the reporting period. As of June 30,
2022-2023, our backlog was approximately $ 2.3-7 billion, compared with approximately $ 1-2.3 billion as of June 30, 2021
2022 . Global Operations Coherent H-VI is headquartered in Saxonburg, Pennsylvania, USA, with RD-R & E-D,
manufacturing, and sales facilities worldwide. Our U. S. production and RD-R & E-D operations are located in Arizona,
California, Colorado, Connecticut, Delaware, Florida, Illinois, Massachusetts, Michigan, Mississippi, New Jersey, New York,
Ohio, Oregon, Pennsylvania, and Texas, and our non- U. S. production and RD-R & E-D operations are based in Australia,
China, Finland, Germany, India, Malaysia, the Philippines, Singapore, South Korea, Spain, Sweden, Switzerland, Thailand,
the United Kingdom, and Vietnam. We also utilize contract manufacturers and strategic suppliers. In addition to sales offices co-
located at most of our manufacturing sites, we have sales and marketing subsidiaries in Belgium, Canada, China, France,
Germany, Israel Hong Kong, Italy, Japan, the Netherlands, South Korea, Spain, Switzerland, Taiwan, and the United
Kingdom, and, following the Coherent acquisition, in France, Israel, the Netherlands, and Spain. In addition, Coherent's
products are manufactured at sites in California, Oregon, Michigan, New Jersey, and Connecticut in the United States;
Germany, Scotland, Finland, Sweden, Switzerland, and Spain in Europe; and South Korea, China, Singapore, and Malaysia in
Asia. In addition, Coherent also uses contract manufacturers in southeast Asia, Eastern Europe and the United States for the
production of certain assemblies and turnkey solutions. Human Capital Our mission is "Enabling the world to be safer,
healthier, closer, and more efficient." Our vision is "A world transformed through innovations vital to a better life today and
the sustainability of future generations," Our core values are: Integrity, Collaboration, Accountability, Respect, and Enthusiasm
(I CARE). Our values define who we are and serve as a guide in how we engage with each other, our customers, our suppliers,
our investors, and our environment. They serve as a model for how we grow our company in an ethical, scalable, and
sustainable manner. Our workplace is defined by our people. It enables them to show up as their "best self" to work every day.
This includes creating an inclusive environment in which every individual is considered a valued and valuable member of the
team. We listen to the voice of the employee through focus groups, personal interviews, engagement as part of our open-door
policy, and through engagement surveys, among other methods. This rich feedback allows us to reflect and adjust our employee-
focused initiatives across the globe to create a culture that recognizes their contributions and values their opinions. As a result,
our human capital strategies are core to the long- term sustainability and success of the Company. As of June 30, 2022 2023,
the Company employed approximately 24-27, 000 employees worldwide. Number of employees Percent
oftotalManufacturing21 oftotalDirect production16, 29369-81882 % Research -and development development2, 4269
engineering, sales and marketing4, 37918 % Sales, General general and administration2 administrative2, 98613 3789 %
Total: <del>23-<mark>26</mark> , <del>658100-<mark>622100</del> % We believe that our efforts in managing our workforce have been effective, as evidenced by a</del></del></mark>
strong culture and a good relationship between the Company and our employees. • Our People. Our people are critical to our
continued success. We provide a workplace that develops, supports, and motivates our employees. We partner with Gallup to
implement their Q12 Employee Engagement Survey. The survey questions and Gallup's resources help us measure our progress
toward creating a stronger, more engaged workforce. Based on the results, our employee teams then collaborate on action plans
to improve in targeted areas. Our most recent employee engagement survey (2021) saw 94 % participation from our global
workforce, and the results showed that overall engagement increased by 10 % from our original survey. We plan to conduct the
survey again in calendar year 2023 to continue to measure and enhance employee engagement company wide. Occupational
Health and Safety. It is our highest priority to keep our employees, customers, and suppliers safe, as the health and safety of our
workforce is paramount to the success of our business. We provide our employees upfront and ongoing safety training to ensure
that safety policies and procedures are effectively communicated and implemented. We have experienced employees on- site at
each of our manufacturing locations who are tasked with environmental, health, and personal safety education and compliance.
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The safety calculation recognized by the Occupational Safety and Health Administration, the Total Recordable Incident Rate ("
TRIR"), is closely monitored throughout the Company. As of June 30, 2022, our TRIR was 0. 23, which remained static year-
over- year as compared to FY21. We customize our policies to the local requirements and circumstances of each plant .-
COVID-19. Our top priority during the ongoing COVID-19 pandemic has been and continues to be protecting the health and
safety of our employees and their families, our customers, suppliers, and our communities. Our on- site work environments were
changed to accommodate best-in-class protocols. The commitment to this effort is evidenced by the extensive planning and
numerous actions we swiftly took to respond to the pandemic, including the development and implementation of a Pandemic
Response Team and Pandemic Response Guide, a work- from-home program, health cheek protocols, temperature screenings.
and periodic COVID-19 testing where permitted and deemed appropriate for all employees working on-site. Additionally, new
process workflows were initiated to ensure reduced contact for employees working on- site, contact tracing processes and
protocols were established, quarantining and testing protocols for exposure and positive tests were implemented, travel
guidelines and protocols were created to ensure that employees who must travel for work can do so safely, and phased return-
to- work plans and approval processes were formed to enable non-manufacturing employees to return to the office when
permitted by local government regulations and deemed appropriate by II- VI leadership. We hired an infectious disease expert
who specializes in COVID-19 to offer guidance to our Pandemic Response Team, managers, and site leaders. We have begun
the transition back to in-person work for offices on a site-by-site basis per location where deemed safe and responsible by the
CDC and safeguards continue to evolve based on the local risk level and feedback from our medical consultants. • Talent
Acquisition, Development, and Training. Hiring talented individuals and continuing to develop them are critical to our
operations, and we are focused on creating experiences and programs that foster growth and performance . Our Talent
Acquisition teams continue their outreach efforts to engage and attract diverse, high- quality talent to our organization
We have a robust succession- planning process that identifies internal candidates for development. We provide all employees
the chance to learn and develop critical skills, and we strive to attract, motivate, and retain our high-quality talent. We
encourage all employees Our Leadership Academy offers global leadership development programs for our people leaders
to broaden-build their leadership knowledge. For example, to foster our culture of innovation, we host monthly Technology
Spotlight Seminars to highlight some of the many significant technical advances and competencies within II-VI. These
seminars cover a broad spectrum of platforms and products, with the primary objectives of fostering innovation within the
company and technical community; cross- fertilizing technology and sparking new ideas for cross- business collaborations; and
enhancing the visibility of II-VI's technical capabilities, platforms, and recent advances. Tuition reimbursement and funding
for growth and development is also built into the annual budget to ensure that Coherent <del>II- VI</del>-has the skilled workforce we
need. Our global internship programs also welcome a new talent pipeline. In FY22 fiscal 2023, we H-VI pledged $ 1,3
million, 000, 000 to fund STEM educational and research programs in 2022-2023. • Total Rewards. Our "One Coherent II-
VI" approach to total rewards provides a competitive total compensation package that attracts, motivates, and retains high-
quality talent; matches total rewards of competitors with which we compete for talent; increases transparency of rewards
programs, company and segment metrics, and measurement of achievements in relation to challenging objectives; balances fixed
costs (benefits and base pay) and variable costs (bonus and equity), with a substantial portion of total direct compensation tied to
performance; pays for performance – base, bonus, and equity reflect both company and individual performance; and aligns with
the interests of our shareholders. Globally, all non-sales employees participate in a variable incentive program measured on the
operating earnings of their business segment. Similarly, sales employees are incentivized on revenue and profit- after- tax
attainment. Select employees are eligible to receive equity-based awards, to align employee and shareholder interests. In
addition to offering competitive and fair compensation, we also offer a compelling suite of benefits, including comprehensive
health benefits to all of our employees globally. • Diversity and Inclusion. Coherent II-VI supports fundamental human rights —
values inherent to all human beings. We expect all leaders and employees to treat each other with dignity, fairness, and respect.
We are consciously expanding the diversity of our workforce including with a focus on underrepresented groups in leadership
and technical positions, creating growth and development opportunities for our employees, embracing different perspectives,
and fostering an inclusive work environment. We have begun Recognizing the opportunity to incorporate inclusive increase
gender representation at all levels of the organization, we piloted a Women in leadership Leadership training topics into
our leadership-Program in fiscal 2023. This program is a significant investment in the development programs and
<mark>advancement of women at Coherent and is designed</mark> to <del>ensure that inclusive <mark>further career growth for women through</mark></del>
targeted skill development, exposure to and coaching by senior leadership---- leaders practices are embedded into our
culture. In FY22, and opportunities to network with peers across the organization we introduced "Building a Culture of
Inclusion "into our global Front-Line Leader Program. The Company also formed a Global Advisory Council completed
comprising senior leaders across the organization responsible for providing oversight on our global DEI efforts. The program's
strategy executive sponsors include the CEO's direct reports and objectives a Corporate Board Member. The Council
Communication of this strategy to the organization has already taken place as well as the deployment of our Foundations
of DEI training to employees globally to set the foundation of awareness and understanding on the concepts of DEI in
our workplace. Our next step is to implement regionally relevant currently working on developing the program's strategic
pillars and tying-DEI objectives to goals in support of the business global strategy. We plan to have regional DEI strategies in
place-for each of our global locations. With with the launch assistance of Regional Councils. Our organization continues to
actively partner with our DEI program, Chair and CEO Chuck Mattera took a stand against racism in signing the CEO Action
for Diversity & Inclusion <del>Pledge, joining other CEOs dedicated</del> to <del>advancing advance</del> diversity and inclusion in the workplace.
The pledge includes In fiscal 2023, Chair and CEO Chuck Mattera and our Chief HR Officer served as mentors in the
CEO Action Mentoring Initiative. This program pairs C- suite leaders with mentees from underrepresented and diverse
populations working at the director and vice president levels to take part in a <mark>range <del>commitment to engage the board</del> of</mark>
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professional directors when developing development activities focused and evaluating DEI strategies, cultivating an
environment that supports open dialogue on accelerating complex and often difficult conversations around DEI, implementing
and expanding unconscious bias education and training, and sharing best practices in the area development of DEI diverse
senior leaders through mentoring circles. Additional Coherent executive leaders have volunteered to serve as mentors
for future cohorts of this programs—program and initiatives as well as for the Optica Women Scholars Program. Globally,
approximately 49-44 % of the workforce is female, with 11, 519-838 females and 12, 139-14, 893 males and 224 undisclosed
as of June 30, 2022 2023. In Coherent the II-VI's Senior Leadership Team ("SLT"), which consists of senior directors and
above, there are 21-65 females and 196-483 males. The SLT meets quarterly to discuss strategy, business trends, company
operations, financials, and people programs. Our global footprint is diverse, with approximately 18-17, 600-900 employees in
the Asia- Pacific region, 1-3, 300 900 in Europe, and 3-5, 800-200 in the Americas. Manufacturing Processes Our success in
developing and manufacturing many of our products depends on our ability to manufacture and tailor the optical and physical
properties of technically challenging materials and, components, and photonics- based solutions across a broad array of
industries. The ability to produce, process, and refine these complex materials, and to control their quality and in-process
yields, is an expertise of the Company that is critical to the performance of our customers 'subsystems and systems'. In the
markets we serve, there is a limited number of high- quality suppliers of many of the components we manufacture. Aside from
datacenter transceivers, there are very few industry- standard products. Ours lasers are displacing conventional technology
because they can do the job faster, yield higher quality, provide overall economic benefits, and enable next generation
applications. Our network of worldwide manufacturing sites allows us to manufacture our products in regions that provide
cost- effective and risk- management advantages. We employ numerous advanced manufacturing technologies and systems at
our manufacturing facilities. These include metal- organic chemical vapor deposition and molecular beam epitaxy reactors,
automated computer numeric control optical fabrication, high-throughput thin-film coaters, nanoprecision metrology, and
custom- engineered automated furnace controls for crystal growth processes. We provide lasers in the form of gas,
semiconductor, solid state crystal or fiber which can also be classified by their output wavelength: ultraviolet, visible,
infrared or wavelength tunable. There are also many options in terms of pulsed output versus continuous wave, pulse
duration, output power, beam dimensions, etc., which are application specific. Manufacturing products for use across the
electromagnetic spectrum requires the capability to repeatedly manufacture products with high yields to atomic tolerances. We
H-VI continuously updates - update its our comprehensive quality management systems that feature manufacturing quality
best practices. We are H-VI is committed to delivering products within specification, on time, and with high quality, with a
goal of fully satisfying customers and continually improving. The Use of Renewable Energy We continue to focus our efforts
to convert locations to renewable energy. During the past two fiscal, and our program is now in its fourth years-vear. We
continue to increase our use of renewable energy to power our operations and lower our greenhouse gas footprint. As of
April 2023, we have <del>converted 40 contracts in place to cover over 50 %</del> of our total electricity requirements globally from
renewable sources. That includes more than 50 sites to now procuring 100 % renewable -electricity contracts. We have on
In addition, II - VI site solar systems at several facilities that further contribute to our renewable energy efforts. We
participates - participate in Apple's Supplier Clean Energy Program, and all of our Apple production is facilities are powered
with by 100 % renewable electricity sources. Our team also works to minimize energy usage. Additionally, our Fremont
water usage, California other raw materials usage, and waste generation. We have been recognized for excellence in
<mark>some of these programs by external organizations. For example, our</mark> Dallas, Texas, <del>facilities <mark>facility are multiyear has</del></del></mark>
<mark>received a local</mark> award <del>recipients f</del>or <mark>its continued compliance with local</mark> wastewater treatment <del>programs</del>- program for three
consecutive years and 19 years in total. Additional information can be found on the Environmental, Social, and Governance
(ESG) section of our website at www. coherent ii- vi. com. The website address is intended to be an inactive textual reference
only. None of the information on, or accessible through, Coherent' II-VI's website is part of this Annual Report on Form 10-
K <mark>, or nor</mark> is it incorporated herein by reference <del>herein</del>. Sources of Supply In our production processes, we use numerous
optical, electrical, and mechanical parts that are sourced from third- party suppliers. These include integrated circuits, digital
signal processors, mechanical housings, and optical components, and we commonly refer to them as raw materials. Raw
materials or sub-components required in the manufacturing process are generally available from several sources.
However, in the Lasers segment, we currently purchase several key components and materials, including exotic
materials, crystals and optics, used in the manufacture of our products from sole source or limited source suppliers. We
also purchase assemblies and turnkey solutions from contract manufacturers based on our proprietary designs. We rely
on our own production and design capability to manufacture and specify certain strategic components, crystals, fibers,
semiconductor lasers, lasers and laser- based systems. The continued high quality of and access to these raw materials are
critical to the stability and predictability of our manufacturing yields. We specify and test these raw materials at the onset of and
throughout the production process. Additional research and capital investment are sometimes needed to better define future raw
materials specifications. During As a result of COVID-19, we have experienced some production delays due to shortages of
raw materials, and while we are driving still seeing some challenges on certain components and infrastructure items, for
the most part supplier lead times are reducing and supply is back to pre-pandemic levels. We continue to development
- <mark>develop of</mark>-strategic second sources as part of our overall business continuity planning <mark>, and <del>. We do</del> occasionally experience</mark>
problems associated with vendor-supplied raw materials not meeting contract specifications for quality or purity. Risks
associated with reliance on third parties for the timely and reliable delivery of raw materials is are discussed in greater detail in
Item 1A. Risk Factors of this Annual Report on Form 10- K. Reporting Segments and Business Units The Company's
organizational structure historically has had been divided into two reporting segments for the purpose of making operational
decisions and assessing financial performance: (i) Photonic Solutions and (ii) Compound Semiconductors. With the acquisition
of Coherent , Inc., on July 1, 2022 the Company, we added a third reporting segment ", " Lasers ", " which is comprised
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comprises of nearly all of the business of Legacy Coherent. In addition, we the Company renamed its our existing two
reporting segments, from Photonics Solutions to Networking and from Compound Semiconductors to Materials. Beginning with
fiscal year 2023, the Company is divided into three reporting segments: (i) Materials, (ii) Networking, and (iii) Lasers. We have
The Company will report reported financial information for these new reporting segments in fiscal year 2023. In addition,
prior year numbers were recast to reflect the transfer of two entities between the Networking and Materials segments.
The Networking Photonic Solutions Segment segment leverages Coherent II-VI's compound semiconductor technology
platforms and deep knowledge of end- user applications for our key end markets to deliver differentiated components and
subsystems. The Materials Compound Semiconductors Segment segment is a market leader in engineered materials and
optoelectronic devices, such as those based on ZnSe, ZnS, GaAs, InP, GaN-GaSb, and SiC. We may from time to time
reorganize parts of a given segment or corporate center to drive the focus of certain priorities, H-VI The Lasers segment's
lasers and optics products serve industrial customers in semiconductor and display capital equipment, precision
manufacturing, and aerospace & defense, as well as instrumentation customers in life sciences and scientific
instrumentation. Coherent's segments are organized by business unit at the group or division level. Each of these business
units develops and markets products as described below. Networking Business Photonic Solutions Business Unit Our
ProductsROADM ProductsTelecommunications • Products and solutions that enable high- bit- rate interconnects for
datacenters and communications and cloud service providers, including in terrestrial datacenter interconnects, ROADM
<del>systems,</del> and undersea fiber- optic transmissionTransecivers transmissionDatacom Transceivers • Pluggable transceivers for
Ethernet and Fibre Channel applications in cloud, hyperscale and enterprise datacenter applications - High-speed
optoelectronics and modules for optical communications in telecom networks, including AI / MLAdvanced for datacenter
interconnects and for metro, regional, long- haul, and ultralong- haul networks Advanced Optics • Fiber optics and precision
optics used in projection displays; crystal materials and components for optical communications; high- power UV, visible, and
NIR optics for industrial lasers; filters and assemblies for life sciences as well as for sensors, instrumentation, and
semiconductor equipmentMaterialsBusiness equipment Compound SemiconductorsBusiness-UnitOur ProductsEngineered
Materials & Laser Optics • Laser optics and accessories for CO2 lasers used in industrial, semiconductors, and life sciences
applications • High- power fiber and direct- diode laser optics • Infrared thermal imaging optics and assemblies • Polycrystalline
materials production including ZnSe, ZnS, and CVD diamond • Thermoelectric components, subassemblies, and systems for
heating, cooling, temperature tuning, thermal cycling, and power generation in acrospace and defense, medical, industrial,
automotive, consumer, telecommunications, and energy-production markets. Specialty refining, recycling, and materials-
recovery services for high- purity rare metals such as selenium and tellurium, as well as related chemical products such as
tellurium dioxide for optics, photovoltaics, semiconductors, thermoelectric coolers, metallurgy, agriculture, and industrial
applications * Advanced ceramic and metal- matrix composite products Laser Components for semiconductor capital
equipment, flat-panel displays, industrial and optical equipment, and defense applications Laser Devices & Systems
Subsystems • High- power semiconductor lasers and laser bars enabling fiber and direct- diode lasers for industrial, defense,
consumer, and printing applications. Laser heads and modules, Q- switched laser modules, high- power uncooled pump laser
modules, laser solutions systems for superhard materials processing * Laser processing heads and beam delivery systems for
laser materials processing with industrial lasers • High- speed power fiber lasers for materials processing • EELs, VCSELs
for optical communications, and detectors • High- power pumps for amplifiers and optical communications • Precision optical
assemblies - objectives -, infrared optics, thin- film coatings, and optical materials • Optical solutions for critical and complex
design, engineering, and production challenges in aerospace and & defense defense New - Semiconductor lasers and detectors
for optical interconnectsNew Ventures & Wide-Bandgap Electronics Technologies • SiC and advanced semiconductor
materials for high- frequency and high- power electronic devices Optoelectronic devices applications in defense,
telecommunications, automotive, and industrial marketsOptoelectronie-& Modules RF Devices • VCSELs for sensing,
including 3D sensing in consumer electronics and automotive applications • EELs and detectors GaAs-based RF electronic
devices • Integrated circuits for transceivers for LasersBusiness UnitOur ProductsExcimer Lasers • High pulse energy UV
gas and solid- state lasers from 193 nm to 355 nm • Advanced UV optical <del>communications</del> systems, line beams, and mask-
based imaging systemsSolid- State Lasers North America • Ultrafast lasers from UV III- V epitaxial wafers to IR
wavelengths enable higher- performance photonic and RF components for consumer, communications, network, and mobile
applications - Semiconductors High pulse energy UV nanosecond lasers • Low- power continuous - wave lasers and
detectors for sensing applications Acrospace systems • Miniature low-power continuous- wave lasers and systems • High-
power ultrafast amplifiers • Continuous- wave UV gas lasersSolid- State Lasers Europe • Ultrafast lasers from UV to IR
wavelengths • High pulse energy UV nanosecond lasers • Miniature low- power continuous- wave lasers from UV to IR
wavelengthsLaser Systems • Subsystems incorporating various lasers, optics, beam manipulation, monitoring, and
control electronics • Standard systems incorporating standard subsystems in a complete mechanical housing, sold to the
end userCO2 Lasers • kW class continuous- wave gas IR lasers • 50 W to 1 kW continuous- wave and pulse gas IR
lasersAerospace & Defense • Specialty polishing Ultraviolet to long wavelength infrared materials and coating of optics,
optical systems, and assemblies requiring high complexity and precision at dimensions of up to 2 meters • Specialty High
energy lasers and optics Our laser systems • Specialty crystals • Specialty diode lasers Markets Our market- focused
businesses are currently organized by technologies and products. Our businesses historically address-addressed the following
primary markets: optical and wireless communications, industrial, aerospace and & defense, semiconductor capital equipment,
life sciences, consumer electronics, and automotive. In connection with the acquisition of Coherent, effective July 1, 2022, the
Company has reconfigured its primary markets and is reporting based the state-of-the- art GaN-on - SiC HEMT devices that
will enable these - the next-generation wireless networks following markets effective July
1,2022:industrial,communications,electronics,and instrumentation | Industrial Market Group • Precision Manufacturing
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Market Vertical. Our laser optics and solutions for the industrial market remain well-positioned. Our vertically integrated and
market-leading ZnSe optics and components, due to their inherent low loss at around the 10- micron wavelength, have enabled
high-power CO2 laser systems for many decades and remain critical to the steady stream of new deployments as well as to
continued operation, serving as replacement optics for the installed base of CO2 lasers. We H-VI continues continue to
introduce products that address new and growing applications for low-power CO2 lasers, such as drilling and cutting
plastics, textiles, leather, wood, and other organic materials, for which the CO2 laser's 10- micron wavelength is ideally
suited.CO2 lasers are also at the core of EUV lithography systems, which enable a new generation of smaller and more powerful
integrated circuits. Fiber lasers that operate at about the 1- micron wavelength in pulsed or continuous mode have taken a central
role in many industrial applications, especially for metal cutting and welding along with precision machining such as marking
and microdrilling. We supply II-VI supplies a broad range of materials, components, and subsystems that enable many functions
within these fiber lasers, from the laser chips that generate the input optical power to the beam delivery systems that direct the
output optical power to the target -. The combined company will same set of Coherent products is at the core of existing and
emerging direct- diode laser systems. Coherent's broad portfolio of coated optics and crystal materials serve serves all of
the these four growing laser markets of industrial. • Aerospace & Defense Market Vertical. Coherent's aerospace &
defense solutions enable mission- critical capabilities for applications in HELs; contested space; and intelligence
surveillance, and reconnaissance. From uniquely grown single crystals and advanced ceramics, to completely engineered
gimbal subsystems, Coherent solutions are embedded on nearly every platform in the field as well as those under
development. Coherent laser beam combining and advanced lightweight gimbal technologies, along with domestically
produced high- power fiber laser pumps and amplifiers, are enabling next- generation HEL systems and space- based
laser communications applications. With the addition of nano- machined single- crystal silicon and grating technologies.
together with Coherent's advanced HEL coating capabilities, we enable advanced spectral beam combining and novel
microstructured surface capabilities, which are highly valued within the aerospace & defense industry. Our advanced
missile warning, electronics---- electro- optical targeting , and <del>instrumentation <mark>imaging systems are deployed on virtually</del></del></mark>
every U. S. fixed- wing and rotary platform. Our advanced sapphire, germanium, and multispectral domes provide
unique protection to our advanced imaging, seeker, and laser solutions that are packaged behind them . The <del>Company</del>
will report financial domes provide hemispherical coverage for airborne, naval, and ground- based systems. Our solutions
for the Lunar Reconnaissance Orbiter (LRO) provided the first images proving that the astronauts' footprints on the
moon are still there. The LRO continues to orbit the moon and provide rich information for future lunar landing sites.
The LRO camera and its more advanced derivatives are the basis for many advanced space imaging applications being
pursued by our customers. Our solution for the OSIRIS- REx mission enables the first- ever ability for a NASA satellite
to touch down on an asteroid (Bennu) and to retrieve a sample and return it to Earth. Our advanced imaging lenses and
windows ensure that our customers' vehicles are able to safely and accurately dock with the Space Station. Our
advanced telescope solution for the Geostationary Lightning Mapper enables the GOES satellites to detect early
lightning strikes and predict tornados a full 20 minutes before previous technology. It forms the basis for many of our
customers' advanced multispectral imaging solutions. Coherent's Aerospace & Defense (A & D) Division maintains
separate business development, IT infrastructure, accounting, finance, engineering, and manufacturing facilities in the
United States with strictly controlled access; they are dedicated to our U.S. government-supported contracts. •
Semiconductor Capital Equipment Market Vertical. Semiconductor capital equipment requires advanced materials to
meet the need for tighter tolerances, enhanced thermal stability, faster wafer transfer speeds, and reduced stage settling
times. Our metal matrix composites and reaction-bonded ceramics enable these new markets in fiscal 2023 applications.
thanks to their optimum combination of light weight, strength, hardness, and coefficient of thermal expansion. This
change Our reaction- bonded SiC materials are used to manufacture wafer chucks, lightweight scanning stages, and
high- temperature corrosion- resistant wafer support systems. Our cooled SiC mirrors and precision patterned reticles
are used in <del>reporting t</del>he illumination systems of lithography tools. Our products enable legacy deep UV lithography
equipment that is widely deployed in semiconductor fabs. In the rapidly accelerating market of extreme UV lithography
systems, CO2 lasers are used to generate extreme- ultraviolet light. These CO2 lasers and beam delivery systems leverage
occur--- our beginning with periods commencing July 1-broad portfolio of CO2 laser optics , 2022-CdTe modulators, and
high- power damage- resistant polycrystalline CVD diamond windows to route the powerful laser beam to a tin droplet
from which EUV light will emanate. Due to its very high mechanical and thermal performance characteristics, our
reaction-bonded SiC is used in structural support systems that are integral to EUV lithography optics to meet critical
requirements for optical system stability. Beyond lasers, we have deep expertise in ceramics and metal matrix composites
that semiconductor equipment manufacturers depend on to achieve state- of- the- art semiconductor manufacturing
throughput, enabled by the exceptional mechanical and thermal properties of these materials. • Display Market Vertical.
We have achieved breakthrough laser innovations essential to manufacture displays for phones, tablets, computers, and
televisions. Our laser solutions can improve precision, combining high-spatial precision and selectivity for advanced
display production; they can increase productivity, offering fast, large- area processing for current and future-
generation modules and panels; and they can maximize yield, maintaining superior yield along the process chain from
backplane to individual display. Communications Market H-VI-Group • Telecom Market Vertical. Coherent 's optical
communications and wireless products and technologies enable next- generation high- speed optical transmission systems,
networks, and datacenter solutions necessary to meet the accelerating global bandwidth demand. Demand for our products is
largely driven by the continually growing need for additional network bandwidth created by the ongoing proliferation of data
and video traffic from video conferencing for work, school, and leisure; video downloads and streaming; live TV; social
networking; online gaming; file sharing; enterprise IP / internet traffic; cloud computing; and datacenter virtualization; that
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must be handled by both wireline and, more wireless networks. This traffic increase reflects the recent recently shift to the
work- from- home and study- from- home approach, which was driven by the COVID-19 pandemic but is expected to
continue. Mobile traffic is increasing as a result of the proliferation of smartphones, tablet computers, and other -- the mobile
devices new optical connectivity needed to support AI / ML algorithms. We are a global technology leader in optical
communications, providing materials, subcomponents, components, modules, and subsystems to optical component and module
manufacturers, networking equipment manufacturers, datacenter operators, and telecom service providers. We design products
that meet the increasing demands for network bandwidth and data storage. Our optical communications products can be divided
into two main groups, optical transmission and optical transport. Our optical transmission products consist primarily of
transmitters, receivers (as stand- alone parts or combined in different integrated solutions), transceivers, transponders, and
active optical cables, which provide the fundamental optical- electrical, or optoelectronic, interface for interconnecting the
electronic equipment used in networks. This equipment includes switches, routers, and servers used in wireline networks, as well
as antennas and base stations used in wireless networks. These products rely on advanced components such as semiconductor
lasers and photodetectors, in conjunction with integrated circuits and novel optoelectronic packaging to provide a cost-effective
means for transmitting and receiving digital signals over fiber- optic cable at speeds ranging from less than 1 Gbps to more than
400-800 Gbps, over distances of less than 10 meters to more than 5,000 kilometers, using a wide range of network protocols
and physical configurations. Our optical transport products are at the core of both terrestrial and undersea optical networks, as
well as of the emerging new space optical communications connections . Our market- leading 980 nm pump lasers are the
key enablers of our erbium- doped fiber amplifiers, which boost the power of optical signals in fiber- optic cables at intervals
spanning 80 kilometers, typically, to allow high- speed signals to be transmitted over longer distances. Our 14xx nm pumps
enable Raman amplification, based on the stimulated Raman scattering (SRS) effect, of the optical signal traveling over
long and ultralong distances. Our latest generation of components for coherent transceivers is critical to a new generation of
small- size, long- reach DWDM transmission modules operating from 100 Gbps to 1 Tbps and beyond. Customers continue to
rely on us for our industry-leading optical amplification and embedded monitoring solutions for their next- generation ROADM
systems to compensate for inherent signal loss and to monitor signal integrity. Our proprietary OTDR modules allow systems to
automatically detect and pinpoint issues along the transmission path in real time. Together with our OCM solutions, which
monitor the optical power of the channels transmitted in a fiber- optic link, they enable real- time intelligence to perform
preventive maintenance so as to preserve data transmission. In addition, we offer a portfolio of WSS products, which we also
incorporate into ROADM line cards and subsystems. Our proven experience in both transmission and transport allows us to
effectively address the emerging DCI market. Our transceivers, submodules, pluggable amplifiers, and configurable line cards
are able to meet the requirements of low power consumption, compactness, ease of installation and operation, and cost savings.
which are often mandatory features in the DCI market. The accelerating • Datacom Market Vertical. We see a major market
transition in the datacom market vertical with the dramatic growth in AI and ML. Network changes to address AI and
ML are driving the introduction of higher- speed transceivers at a faster pace than ever before. Only 20 years ago, the
highest data rate for optical transceivers was 10G. Today, more than 50 % of Coherent's datacom revenue is generated
by 200G and higher data- rate transceivers. Driven by the demands of growing AI / ML adoption, 800G transceivers are
shipping in production and we expect the first 1. 6T transceivers will ship in the next few years. In five years, the market
opportunity for 800G and 1. 6T datacom transceivers is expected to be greater than all other types of <del>applications</del>
datacom transceivers combined, largely driven by AI and ML. At Coherent, we already have a complete portfolio of
transceivers matched to the requirements set by AI and ML. These transceivers are protocol- agnostic, meaning the
same transceiver hardware can support Ethernet and InfiniBand, as well as proprietary protocols for AI and ML such as
eloud computing NVIDIA's NVLink. Over the years, we have made strategic investments that give us a unique level of
vertical integration. We not only design and manufacture our transceivers internally, we also design and manufacture
many of the components including lasers, detectors, and passive optics. When designing a new transceiver that requires
a new component, we either source that component from one of our valued development partners, or we design and
manufacture it internally. We decide what to develop internally and what to develop with suppliers based on business
case, time to market, and strategic considerations. 800G and 1. 6T transceivers require 100G/lane and 200G/lane
lasers. The type of laser used is driving determined by the data rate and the fiber link length. Generally speaking,
interconnects in the AI / ML fabric portion of the network (Level 0) are less than 50 m, interconnects connecting ToR
switches to spine switches (Level 1) are up to 500 m, and interconnects connecting switches to routers or routers to
routers (Telecom Access) are between 2 and 10 km. Each of the these rapid growth of datacenter buildouts distances and
applications are best served by different laser technologies. Our high-speed For link distances less than 100 m, including
Level 0 interconnects and a subset of Level 1 interconnects, VCSELs enable transceivers for intra-datacenter
communication. Our miniature WDM thin-film filter assemblies are used to increase. These are based on our GaAs
technology platform. VCSELs are generally the <del>bandwidth within lowest- cost, lowest- power consumption solution, and</del>
are the lasers of choice for less than 100 GbE m connections. Coherent has multiple 6 " GaAs VCSEL fabs in the U. S.
and Europe. Our 100G / lane VCSELs are in production to support 400G and 800G transceivers. We are working on
200G / lane VCSELs, which will require significant changes in the VCSEL device design and fabrication. For Level 1
switching for distances greater than can be supported by VCSELs, and for telecom access, single- mode devices are used.
These devices are made from InP materials. Coherent has multiple InP fabs in the U. S. and Europe. For Level 1 link
distances greater than 100 m, silicon photonics- based transceivers may be used. All silicon photonics products, including
some of our own, need an InP CW laser to generate the light. For Level 1 links greater than 100 m, and for telecom
access (2 – 10 km), electro- absorption modulated lasers, or EMLs, may be used. We manufacture 100G / lane EMLs to
support 400G and 800G transceivers, such as our EML- based 800G DR8 transceiver. We introduced our 200G / lane
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EML in 2022. As we look forward to 200G / lane transceivers, achieving a 10 km reach is a significant challenge, even
with EMLs. For that application, we have been developing a laser technology called DFB-MZ, which stands for
Distributed Feedback Laser with Mach Zehnder. This is an InP CW laser monolithically integrated with an InP Mach
Zehnder modulator. This laser technology will enable 1. 6T transceivers with up to 10 km reach. Electronics Market
Group • Consumer Electronics Market Vertical. We manufacture VCSELs, VCSEL arrays, and optical filters for the
consumer electronics market. Our VCSEL products leverage our world- class 6- inch GaAs platform, combining our
epitaxial wafer growth wavelengths at the transmitter end and separating wafer fabrication capabilities. Our VCSELs have
been used in consumer products such as computer mice and mobile phones for many years. Our VCSELs are also widely
deployed in datacenters and HDMI optical cables as well as in vehicle steering wheels. This expertise in VCSEL
technology has been leveraged for them- the growing 3D sensing market.3D sensing was the first application to drive the
demand for relatively large two-dimensional VCSEL arrays. A typical design for 3D sensing requires tens or hundreds of
VCSELs per chip in order to scale up the optical power required for, for example, face recognition. Therefore, 3D sensing
applications created the need to scale up manufacturing to 6- inch wafer processing. Today, Coherent II- VI- is one of the very
few vertically integrated 6- inch VCSEL manufacturers with a proven track record in high-volume manufacturing of high-
reliability, large multi- emitter VCSEL dies designed for 3D sensing. An increasing number of consumer devices are coming on
the market with embedded VCSELs, including multiple smartphones and tablets, smart watches, and household robots. In addition
to VCSELs, our products for the consumer electronics market include wafer- scale optics, diffraction gratings, thermoelectric
coolers, and substrates for sensing and AR / VR applications. • Automotive Market H-VI is Vertical. We are a global leader in
SiC substrates for power electronics that improve the energy efficiency of electric and hybrid- electric vehicles. Power
electronics based on SiC enable systems to achieve significantly improved power utilization and conversion efficiencies, lower
operating temperatures, and reduced thermal loads. This in turn enables either increased driving range or reductions in required
battery capacity for a given range, which results in a significant cost reduction. Our comprehensive understanding of crystal
growth and materials processing was acquired over decades of sustained R & D and manufacturing allowing us to continuously
evolve our technology and IP portfolio. We offer a full range of substrate diameters, including the world's first 200 mm
substrate.Our industry- leading semiconductor lasers, optics, and materials can be leveraged for LiDAR systems embedded in
advanced driver- assistance systems (ADAS) for autonomous vehicles.LiDAR sensors enable ADAS to perform functions such
as emergency braking and adaptive cruise control. Coherent II-VI's broad portfolio of components and modules for LiDAR
include high- power laser diodes, fiber amplifiers, frequency- modulated continuous- wave detection solutions, optical filters for
detection, mirrors for scanning, and thermoelectric coolers for temperature control. Our product offerings include edge- emitters
and VCSELs that are capable of providing a wide range of peak powers for direct illumination and imaging for short- and long-
range LiDAR solutions. Emission and return windows on LiDAR systems are available in ultrahard bulk materials -such as SiC
and diamond, and with optical coatings that are water- shedding and oil- resistant. Our thermoelectric coolers are qualified to
automotive standards and enable LiDAR systems to operate with optimal performance and efficiency. New generations of
vehicles will be equipped with a greater number of sensors that can monitor a driver's alertness and let occupants interact with
the console using touch sensing or gesture recognition. In the event of a collision, sensors can help provide critical information
out about at the position and attention of occupants to activate restraints and deploy airbags in the best possible manner.
Coherent's products enable the most advanced in- cabin control and monitoring systems for the latest applications in
human-vehicle interactions. Our VCSELs are ideal for optical touch sensors integrated in dashboards or steering
wheels. Our VCSEL arrays can provide infrared cabin illumination and structured light projection to enable gesture
<mark>recognition. Automotive manufacturers continue to differentiate the their receiver end-</mark>products with comfort features
such as temperature- controlled car seats and cup holders, all of which require thermoelectric devices. We offer thermal-
management solutions that are qualified to stringent automotive industry standards and tailored to various applications.
• Wireless Market Vertical. Mobile traffic is increasing as a result of the proliferation of smartphones, tablet computers,
<mark>and other mobile devices</mark> . In the mobile wireless market, <mark>we are <del>II- VI is</del> a global leader in the strategic supply chain for</mark>
materials and devices utilized in the latest 4G and 5G base station infrastructure. The deployment of 5G wireless is accelerating
globally, driving the demand for RF power amplifiers that can operate efficiently in new high- frequency bands and be
manufactured on a technology platform that can scale to meet the growing demand. GaN- on- SiC RF power amplifiers have
superior performance, compared with devices based on silicon, over a wide spectrum of 5G operating frequencies in the
gigahertz range, including in the millimeter- wave bands. We are a market leader in the technology development and large-
volume manufacturing of 100 mm and 150 mm semi- insulating SiC substrates. These substrates are utilized by customers
worldwide to manufacture GaN- on- SiC HEMT RF power amplifier devices that are embedded in remote radio heads in 4G and
5G wireless base stations. In areas of high bandwidth demand, 5G antennas with beamforming technology utilizing multiple
devices per antenna are expected to be densely deployed, increasing the demand for GaN- on- SiC power amplifiers by
approximately an order of magnitude or more versus 4G antennas. Looking forward, we H-VI continues to advance
the state of the art in SiC substrates, with a strong technology portfolio of 30 active patents using highly differentiated and
proprietary manufacturing platforms and technologies including crystal growth, substrate fabrication, and polishing. Our
demonstration of the world's first prototype 200 mm semi- insulating SiC substrates will enable the RF power amplifier market
to continue to scale, increasingly replacing functions performed by devices based on silicon and enabling new applications. The
GaN and InP technological Leveraging this materials expertise, II-VI has invested aggressively in a world- class 150 mm
compound semiconductor manufacturing platform and is developing a fully vertically integrated..... beam combining and novel
microstructured surface capabilities, which are highly valued within the core competencies of Coherent acrospace and defense
industry. Our advanced missile warning, electro-optical targeting, and imaging systems are key materials also deployed on
virtually every U. S. fixed- wing and rotary platform. Our advanced sapphire, germanium, and multispectral domes provide
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unique protection to our advanced imaging, seeker, and laser solutions that are packaged behind them. The domes provide
hemispherical coverage for airborne, naval, and ground-based systems. Our solutions for the Lunar Reconnaissance Orbiter
(LRO) provided the first images proving that the astronauts' footprints on the moon are still there. The LRO continues to orbit
the moon and provide rich information for future 6G high lunar landing sites. The LRO camera and its more advanced
derivatives, are the basis for many advanced space imaging applications being pursued by our customers. Our solution for the
OSIRIS efficiency power amplifiers REx mission enables the first-ever ability for a NASA satellite to touch down on an and
low asteroid (Bennu) and to retrieve a sample and return it to Earth. Our advanced imaging lenses and windows ensure that our
eustomers' vehicles are able to safely and accurately dock with the Space Station. Our advanced telescope solution for the
Geostationary Lightning Mapper enables the GOES satellites to detect early lightning strikes and predict tornados a full 20
minutes before previous technology. It forms the basis for many of our customers' advanced multispectral imaging solutions. II
- <mark>noise amplifiers VI's Aerospace & Defense (A & D) Division maintains separate business development , enabling IT</mark>
infrastructure, accounting, finance, engineering, and manufacturing facilities in the United States with strictly controlled access;
they the are dedicated to our U best power performance in their respective frequency ranges. Instrumentation S.
government-supported contracts. Semiconductor Capital Equipment Market Group • Semiconductor capital equipment
requires advanced materials to meet the need for tighter tolerances, enhanced thermal stability, faster wafer transfer speeds, and
reduced stage settling times. Our metal-matrix composites and reaction-bonded ceramics enable these applications, thanks to
their optimum combination of light weight, strength, hardness, and coefficient of thermal expansion. Our reaction-bonded SiC
materials are used to manufacture wafer chucks, lightweight scanning stages, and high-temperature corrosion-resistant wafer
support systems. Our cooled SiC mirrors and precision patterned reticles are used in the illumination systems of lithography
tools. Our products enable legacy Deep UV lithography equipment that is widely deployed in semiconductor fabs. In the rapidly
accelerating market of Extreme UV lithography systems, CO2 lasers are used to generate extreme-ultraviolet light. These CO2
lasers and beam delivery systems leverage our broad portfolio of CO2 laser optics, CdTe modulators, and high-power damage-
resistant polycrystalline CVD diamond windows to route the powerful laser beam to a tin droplet from which EUV light will
emanate. Due to its very high mechanical and thermal performance characteristics, our reaction-bonded SiC is used in structural
support systems that are integral to EUV lithography optics to meet critical requirements for optical system stability. Life
Sciences Market <mark>Vertical.</mark> Within the life sciences end market, <mark>we <del>II- VI focuses</del> -- focus</mark> on analytical instrumentation that
integrates light - and / or thermal- management solutions. We segment this market into three application areas (biotechnology,
medical laser, and scientific) and deliver targeted and unique product portfolios for each segment. We H-VI vertically integrates
- integrate from the component level to more complex subassemblies and even full systems, Applications within the
biotechnology segment include flow cytometry, genome sequencing, PCR, molecular diagnostics, imaging, and spectroscopy, to
name a few. Our broad product portfolio delivers solutions covering illumination, light management, and thermal control.
Visible- wavelength lasers and multicolored laser engines provide low- noise, high- performance, reliable light sources. Optical
components and subassemblies such as filters, lenses, flow cells, gratings, objective lenses, and patterned reticles are embedded
into these instruments to manage light delivery. Our state- of- the- art thermal engines precisely control temperature and
uniformity across large areas such as plate and block assemblies, even extending to reagent or sample chilling. Medical laser and
clinical procedures are increasingly performed with systems that integrate our lasers, optics, and thermal solutions. These
applications are performed at or near the patient, requiring extreme precision and often complex designs and typically reach
reaching into the NIR and IR wavelengths. Applications are varied, from laser- based treatments and surgeries to medical
imaging and even-point of care. Coherent H-VI's semiconductor laser bars and stacks are used in applications such as hair and
wrinkle removal. Crystals and laser cavities, along with custom-designed lens assemblies, are used for ophthalmic, dental, and
dermatological surgeries. Finally, thermal Thermal components and subassemblies deliver solutions for medical- based
applications such as providing heating and cooling to the human body and medical laser temperature control. • For the scientific
Scientific segment Instrumentation. Scientific instrumentation rugged enough to be deployed in the field is increasingly
essential for testing and monitoring of air , <del>II- VI</del> water, food and beverage products, and pharmaceuticals, as
environmental and safety concerns become more prevalent. Coherent 's solutions are the building blocks of molecular
spectroscopy and imaging- based platforms. These tools typically target environmental applications such as water, air, food and
beverage, pharmaceutical, and agricultural testing and monitoring. We H-VI continues - continue to leverage its our core laser,
optics, and temperature- control expertise to deliver custom components and subassembly- level solutions at all wavelengths,
from UV to NIR and IR. Consumer Electronics Market II- VI manufactures..... standards and tailored to various applications.
Sales and Marketing We market our products and service 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 and service. New products are continually being developed and introduced to our
new and established customers in all markets. We have The Company has centralized its our worldwide sales and strategic
marketing functions. Sales offices have been strategically aligned to best serve and distribute products to our worldwide
customer base. There are significant cooperation, coordination, and synergies among our business units, which capitalize on the
most efficient and appropriate marketing channels to address diverse applications within our markets. Our sales force develops
effective communications with our OEM and end- user customers worldwide. Products are actively marketed through key
account relationships, personal selling, select advertising, attendance at trade shows, digital marketing, and customer
partnerships. Our sales force includes a highly trained technical sales support team to assist customers in designing, testing, and
qualifying our products as key components of our customers' systems. As of June 30, <del>2022-</del>2023, we employed approximately
400-778 individuals in sales, marketing, and support. We do business with a number of customers in the aerospace and &
defense industry, who in turn generally contract with a governmental entity, typically a U. S. government agency. We had one
customer who contributed more than 10 % of revenue during fiscal 2023. The representative groups of customers <del>by</del>
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segment that we are able to disclose * are as follows: NetworkingBusiness Photonic SolutionsBusiness-Unit: Our Customers
Are: Representative Customers * : <del>ROADMWorldwide</del> <mark>TelecommunicationsWorldwide providers of telecommunications</mark>
and CATV network system systems and subsystem subsystems; telecommunications service providers of
telecommunications, data communications, and CATV • Ciena Corporation • Cisco Systems, Inc. • Fujitsu Network
Communications • NEC Corporation • Nokia Corporation • Windstream Holdings, Inc. Datacom
CorporationTransceiversCloud service providers, telecom service providers, enterprises with
internal datacom networks, datacom OEMs, telecom OEMs • ADVA • Alibaba Group • Cisco Systems Inc. • Dell
<del>Technologies •</del> Extreme Networks, Inc. • H3C Technologies Co. Ltd. • Hewlett Packard Enterprise, Co. • TencentAdvanced
OpticsGlobal manufacturers of industrial and medical laser optics and crystals including commercial and consumer products
used in a wide array of instruments, sensors, fiber lasers, displays, and projection devices • Coherent, Inc. • Corning
Incorporated • Cytek Biosciences, Inc. • Han's Laser Technology Industry Group Co. Ltd. Compound
Semiconductors Business • Zygo Corporation * Many of our customers (including many of our largest customers) require
us to maintain confidentiality of our business relationship, in part by not disclosing their names. Materials Business Unit:
Our Customers Are: Representative Customers *: Engineered Materials & Laser OpticsOEM and system integrators of
industrial, medical, and personal comfort, and acrospace and defense laser systems; laser end users who require replacement
optics for their existing laser systems; manufacturers of semiconductor capital equipment; mineral processors and
<mark>refiners • Applied Materials, Inc. • Beckman Coulter</mark> • Bystronic Laser AG • <del>Coherent, Inc. <mark>Carl Zeiss AG • Nikon</del></del></mark>
Corporation • TRUMPF GmbH Co. KGLaser Components KGManufacturers and developers of integrated- circuit capital
equipment for the semiconductor capital equipment industry • ASML Holding NV • Carl Zeiss AG • KLA Corporation • Nikon
CorporationPrimary mineral processors, refiners, and providers of specialized materials used in laser optics, photovoltaics,
semiconductors, thermoelectric coolers, metallurgy, and industrial products • Aurubis AGManufacturers of equipment and
devices for aerospace, defense, and commercial markets * Lockheed Martin Corporation * Raytheon Technologies
CorporationLaser Devices & SystemsManufacturers SubsystemsManufacturers of industrial laser components, optical
communications equipment, and consumer technology applications; automotive manufacturers; - Ford Motor Company -
Hisense Broadband Inc. • Laserline GmbH • Wuhan Rayeus Fiber Laser Technologies Co. Ltd. OEM and subsystem integrators
of aiming, machine vision, biomedical instruments, and fiber lasers; laser cutting machines for superhard materials • TRUMPF
GmbH Co. KGNew-Ford Motor Company • Laserline GmbHNew Ventures & Wide- Bandgap Electronics
TechnologiesManufacturers and developers of equipment and devices for high-power inverters and converters, voltage-
switching, power- conversion systems, and high- power RF electronics and high- power, voltage- switching, and power-
conversion systems for commercial and acrospace and defense applications. Dongguan Tianyu Semiconductor Technology Co.,
Ltd. • Hyundai Mobis Co., Ltd. • Infineon Technologies AG • IQE PLC Mitsubishi Corporation • Showa Denko KK Qorvo,
Inc. • Sumitomo Electric Device Innovations Inc. Optoelectronic & RF-Devices and Devices Manufacturers
ModulesManufacturers of consumer electronics and datacom transceivers • Apple Inc. LasersBusiness Unit: Our
Customers Are: Representative Customers *: Excimer LasersManufacturers of displays, semiconductor capital
equipment, therapeutic, medical, and scientific research • Advanced Process Systems Corporation • Carl Zeiss Meditec
AG • Dukin Co. Ltd. • JSW Atkina Systems Co. Ltd • JSW Electromechanical Trading (Shanghai) Co. Ltd. Solid State
Lasers- North America Manufacturers of displays and semiconductor capital equipment, equipment for life sciences
instrumentation, scientific research, and various other industrial • Agilent Biosciences (Hangzhou) Co. Ltd • Asclepion
Laser Technologies GmbH • Lasertec USA, Inc. • Sumitomo Heavy Industries Ltd. Solid State Lasers-
Europe Manufacturers of displays and, semiconductor capital equipment, equipment for life sciences instrumentation
and research, and various other industrial • Hitachi High- Tech Corporation • LG Electronics, Inc. • Meerecompany
Incorporated • Philoptics Co, Ltd. Laser SystemsManufacturers of equipment for various industrial market, cutting,
and hole drilling with a focus on medical device manufacturing and automotive / EV / batteries • Align Technology, Inc. •
Siemens AGCO2 LasersManufacturers of semiconductor capital equipment and equipment for various industrial
marking, cutting, hole- drilling, and annealing of organic materials • Körber Technologies GmbH • Nikon Corporation •
Siemens AGAerospace & DefenseInternal crystal and diode supply; manufacturers of ground and space astronomy, and
classified aerospace & defense solutions • Lockheed Martin Corporation • Raytheon Company Competition Coherent H-
VI is a global leader in many of its product families. We compete, in part, on the basis of our reputation for offering highly
engineered core competencies from materials to systems, our differentiated products and service, and the sustainability of
our competitive advantages. We also compete by leveraging our intellectual property, ability to scale, product quality, on-
time delivery, and technical support. We believe that our vertical integration, manufacturing facilities and equipment,
experienced technical and manufacturing employees, and worldwide marketing and distribution channels provide us with
competitive advantages. The representative groups of following are among our top competitors by segment are as follows (in
alphabetic order): Photonic Solutions Areas of Competition: Competitors: Optical components, modules, and subsystems for
optical communications Broadcom Corporation Accelink Technologies Co. Ltd. IDEX Corporation Cisco Systems, Inc. •
Eoptolink Technology Inc., Ltd. • InLC Technology • InnoLight Technology (Suzhou) Ltd. • Intel Data Platforms Group-IPG
Photonics, Inc. • Lumentum Operations LLC • MKS Instruments, Inc. • Molex , LLC • O- Net Communications
Technologies (Shenzhen) Group Co., Ltd. Optical and crystal components, thin-film coatings, and subassemblies for lasers
and metrology instruments. Trumpf CASTECH Inc. • Casix Inc. • IDEX Corporation • Optowide Technologies Co. Ltd. •
Research Electro-Optics Inc. • On Semiconductor CorporationCompound SemiconductorsAreas of Competition: Competition:
Infrared laser optics • American Photonics • Forerun (China) • Lambda Research Corporation • MKS Instruments Inc. • Ophir
Corporation • Research Electro-Optics Inc. • Pleiger Maschinenfabrik GmbH & Co. KG • Sigma Koki Co. Ltd. • Sumitomo
Electric Industries Ltd. • ULO Optics Ltd. • Wavelength Opto- Electronic Ptc. Ltd. Automated equipment and laser materials
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processing tools to deliver high-power 1- micron laser systems • Empower • Mitsubishi Cable Industries Ltd. • Optoskand AB •
Precitee GmbH & Co. Biomedical instruments for flow cytometry, DNA sequencing, and fluorescence microscopy • Shimadzu
Corporation • Pavilion Integration CorporationSemiconductor laser diodes for the industrial and consumer markets • ams AG •
Broadcom Inc. • Everbright LLC • Hamamatsu Photonics KK • Jenoptik AG • Lumentum Operations LLC • nLight Inc. •
Optowell Co. Ltd. • OSRAM Light AG • Panasonic Corporation • ROHM Co. Ltd. • Sony Corporation • TRUMPF GmbH Co.
KG KGInfrared optics for acrospace and defense applications • In- house fabrication and thin- film coating capabilities of major
aerospace and defense customers Thermoelectric components, subassemblies, and systems • Ferrotec Corporation • Laird
Thermal Systems • Komatsu Ltd. Metal- matrix composites and reaction- bonded ceramic products • Berliner Glas GmbH •
CoorsTek Inc. • Japan Fine Ceramics Co. Ltd. • Kyocera Corporation • Morgan Advanced Materials PLC • Schunk
GmbHSingle- crystal SiC substrates • Wolfspeed, Inc . • Dow Inc. • ROHM Co. Ltd. • SICC Co. Ltd. • TankeBlue
Semiconductor Co. Ltd. Refining and materials recovery services for high-purity rare metals • 5N Plus Inc. • RETORTE
GmbH • Vital Materials Co. Ltd. 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. Our Strategy Our strategy is to
grow businesses with world- class engineered materials and laser processing capabilities to advance our current customers'
strategies, reach new markets through innovative technologies and platforms, and enable new applications in large and growing
markets. A key strategy of ours is to develop and manufacture high- performance materials and, in certain cases, components
incorporating those materials, that are differentiated from those produced by our competitors. We focus on providing
components that are critical to the heart of our customers' products that serve the applications mentioned above. We continue to
grow the number and size of our key accounts. A significant portion of our business is based on sales orders with market leaders,
which enables our forward planning and production efficiencies. We intend to continue capitalizing and executing on this
proven model, participating effectively in the growth of the markets discussed above, and continuing our focus on operational
excellence as we execute our primary business strategies .: Key Business Strategies: Our Plan to Execute: Identify New
Products and MarketsIdentify new technologies, products, and markets to meet evolving customer requirements for high-
performance engineered materials through our dedicated RD & E programs, and thereby increase new product revenue and
maximize return on investmentLeverage Vertical IntegrationCombine RD & E and manufacturing expertise, operating with a
bias toward components and production machines; reduce cost and lead time to enhance competitiveness, time to market,
profitability, and quality; and enable our customers to offer competitive products Investment in Scalable
Manufacturing Strategically invest in, evaluate, and identify opportunities to consolidate and automate manufacturing operations
worldwide to increase production capacity, capabilities, and cost-effectivenessEnhance Our Performance and Reputation as a
Quality and Customer Service LeaderContinue to improve upon our established reputation as a consistent, high-quality supplier
of engineered materials and optoelectrical components that are built into our customers' products Execute our global quality
transformation process, eliminating costs of nonconforming materials and processes Identify and Complete Strategie
Acquisitions and Alliances 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 Research, and Development, and
Engineering During the fiscal year ended June 30, 2022 2023, we the Company continued to identify, invest in, and focus our
research and development on new products and platform technologies in an effort to accelerate our organic growth. This
approach is managed under a disciplined innovation program that we refer to as the Coherent II-VI-Phase Gate Process. We
devote significant resources to RDR & E-D programs directed at the continuous improvement of our existing products and
processes, and to the timely development of new materials, technologies, platforms, and products. We believe that our RD-R &
E-D activities are essential to establishing and maintaining a leadership position in each of the markets we serve. In addition,
certain manufacturing personnel support or participate in our research and development efforts on an ongoing basis. We believe
the close interaction between the development and manufacturing functions enhances the direction of our projects, reducing
costs and accelerating technology transfers. It also offers development opportunities to our employees. During the fiscal year
ended June 30, <del>2022-2023</del>, we focused our <del>RD-R</del> & <del>E-D</del> investments in the following areas: NetworkingArea Photonic
Solutions Area of Development: Our RD R & E-D Investments: Photonics design Continue to develop and improve crystal
materials, precision optical parts, and laser device components for photonics applications; develop new platforms and
eapabilities capabilities Datacom Datacom transceivers Continue cost reduction on 10G-100G products by leveraging our
engineering resources and manufacturing scale; continue to develop high- end 200G / 400G / 800G / 1. 6T products, including
RF and packaging designs; explore high- density, high- bandwidth co- packaged designs through silicon photonics; continue to
develop vertically integrated designs, including with lasers and ICsCoherent optics and transceiversDrive further integration to
reduce size and power consumption; increase bandwidth to enable 100G / 200G / 400G coherent transceivers; optimize product
cost with new design architectures and more efficient manufacturing flowPump flowIntegrated circuitsDevelop high-speed
integrated circuits for coherent optical communicationsPump lasersContinue to invest in our next- generation GaAs pump
laser portfolio and flexible manufacturing footprint to address evolving terrestrial and undersea marketsDevelop InP growth and
processing capability together with associated packaging technology for Raman amplification applicationsOptical amplifiers and
subsystems. Invest in and broaden the range of amplifiers and integrated subsystems, including ROADMsWSSDevelop
ROADMsOptoelectronic chip hybrid integration platform (OCHIP) Develop wafer- scale assembly technologies and
processes for integration of lasers, optics, and ICsSilicon photonics devicesDevelop silicon-based photonic ICs for
<mark>coherent and direct- detection transceivers and co- packaging solutionsWSSDevelop</mark> LC and <del>LCOS</del>-<mark>LCoS</mark> technologies and
associated module designs for WSS; invest in manufacturing equipment, including the WSS automated assembly
platformOptical monitoringContinue optical channel monitoring investmentDevelop OTDRs to monitor the health of the fiber
plantMicro- optics manufacturingShift toward smaller, more compact optics and automated assembly platforms and
packagesInvest in manufacturing equipment for computerized processesMaterialsArea processesCompound
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Semiconductors Area of Development: Our RD R & E-D Investments: High-power laser diodes Semiconductor lasers Devices for optical communications, sensing, and high- volume manufacturing Increase output power and reliability of edge- emitting laser diodes for fiber laser, optical communications, and sensing applications Develop high- power VCSELs, including multijunction VCSELs for 3D sensing and consumer devices as well as next-generation, high-speed VCSELs for datacom applicationsDevelop high- power and high- speed InP lasers, detectors, and components for applications in optical communications and sensing High-power beam delivery Develop multi- kW beam delivery systems and cables for welding and cuttingCVD diamond technologyDevelop CVD diamond for EUV applications and as substrates for high-performance RF devicesBroaden our portfolio beyond infrared window applicationsSiC technologySiC epitaxial wafers, devices, and modulesDevelop advanced SiC substrate growth technologies to support emerging markets in GaN RF and SiC power electronicsContinuous improvement to maintain world- class, high- quality, large- diameter substrates and epitaxial wafersDevelop SiC epitaxial wafers, SiC diodes and MOSFET devices, and SiC power modulesThermoelectric materials and devicesContinue to develop leading Bi2Te3 materials for thermoelectric cooling / heatingFocus on thermoelectric powergeneration capability in order to introduce new productsMetal -matrix composites and reaction- bonded ceramicsSupport industrial customers in developing application-specific material wear- out, light- weight high mechanical stability materials, and thermal- management solutions solutions Fiber Fiber laser technologies Develop high- power fiber laser technologies for aerospace -& defense - and commercial applications High-speed ICs Develop high-performance analog TIAs, laser drivers, and clock and data- recovery retimer ICsBattery (CDR) ICs Other R & DArea of Development: Our RD & E Investments: Digital signal processors (DSPs) Develop high-speed DSPs for coherent optical communicationsOptoelectronic chip hybrid integration platform (OCHIP) Develop wafer- seale assembly technologies and processes for integration of lasers, optics, and ICsSilicon photonics devices Develop silicon-based photonic ICs for coherent and direct-detection transceivers and co-packaging solutionsBattery-technologyDevelop technology for lithium- ion batteries and recycling processesAdditive processesSpacebased laser communicationsDevelop technology and devices for space-based laser communicationsAdditive manufacturingDevelop alloys and multibeam delivery systems for laser additive manufacturingDevelop binder jet additive manufacturing for advanced ceramic components LasersArea of Development: Our R & D Investments: Diode- pumped Solid- State LasersContinue to develop solid- state lasers for industrial applications for materials processing, instrumentation, and scientific applications, including extension of wavelengths using nonlinear optics (harmonic generation), especially into the ultraviolet wavelength range. Continuous- wave operation as well as pulsed systems with pulses in the range of 400 fs to 100 ns. Ultrafast Fiber LasersContinued development of industrial femtosecond fiber lasers with 50- 200 µJ pulse energy, including UV generation, for semiconductor capital equipment and display manufacturing. Power- scaling and wavelength range extension for low energy (< 1 μJ), high repetition rate (80 MHz), femtosecond fiber laser systems used in multi- photon imaging. Femtosecond Oscillators and AmplifiersContinue to develop ultrafast laser systems for scientific applications based on Ti: Sapphire and Yb- doped gain materials with sub-100- fs pulse duration. Optically- pumped Semiconductor Lasers (OPSL) Continue to broaden the product portfolio of continuous- wave, visible and ultraviolet OPSL by offering new wavelengths, increasing the output power and further reducing the product footprint. This includes the development of single- frequency ultraviolet cw OPSL- based systems. Semiconductor LasersIncrease output power and reliability of GaAs- and InP- based edge- emitting semiconductor lasers (single emitters, bars, stacks and fiber- coupled modules) for laser pumping, industrial, and defense applications. Excimer Lasers and Excimer Laser ToolsContinue to support existing excimer laser- based applications in display manufacturing, instrumentation, and materials processing. Increase output power and reliability of pulsed excimer lasers (wavelength range of 193 nm to 308 nm) and continue to develop new excimer laser- based tools for display manufacturing. CO2 LasersContinue to develop medium- power slab waveguide CO2 lasers (20 W to 1 kW) used in industrial applications with an emphasis on improved reliability and decreased cost. Continue to develop and support new applications for high- power slab waveguide CO2 lasers with average output powers of up to 8 kW. Laser ToolsContinue to develop laser- based tools used for marking, cutting, and welding applications with an emphasis on process control. Laser Crystal and Nonlinear Crystal GrowthSupport and optimize growth processes of laser crystals (e. g., Nd: YVO4, Nd: YAG, Yb: YAG, Yb: KYW, Yb: CALGO) and nonlinear crystals (e. g., LBO, BBO) used in laser systems. Continued improvement in crystal quality (absorption, homogeneity, scattering) and in crystal lifetime during laser operation. Optical Fibers Continue to broaden the portfolio of passive optical fibers and doped active fibers (doped with Nd, Yb, Er, Tm) and develop novel fiber designs for improved fiber laser performance. Optical Components for Laser SystemsContinued development of optical components used in laser systems, including isolators, rotators, volume Bragg gratings. Continued improvement of optical coatings for laser mirrors and lenses. Large- scale Mirrors and Lenses Invest in fabrication technologies for large- sized lenses and mirrors used in astronomy and aerospace & defense applications. Support fabrication of large- dimension cylinder lenses for excimer- based laser tools used in display manufacturing. Other R & DArea of Development: Our R & D Investments: Space- based laser communications Develop technology and devices for space- based laser communications Research and development expenditures were \$ 500 million, <mark>\$</mark> 377 million, <mark>and</mark> \$ 330 million <del>, and \$ 339 million</del> for the fiscal years **2023,** 2022, <mark>and</mark> 2021 <del>, and 2020</del> , respectively. Import and Export Compliance We are required to comply with all relevant import / export and economic sanctions laws and regulations, including: • The import regulations administered by U. S. Customs and Border Protection; • The International Traffic in Arms Regulations administered by the U. S. Department of State, Directorate of Defense Trade Controls, which among other things impose licensing requirements on the export from the United States of certain defense articles and defense services, generally including items that are specially designed or adapted for a military application and / or listed on the United States Munitions List; • The Export Administration Regulations administered by the U. S. Department of Commerce, Bureau of Industry and Security, which among other things impose licensing requirements on certain dual- use goods, technology, and

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software; and • The regulations administered by the U. S. Department of the Treasury, Office of Foreign Assets Control,
implementing economic sanctions against designated countries, governments, and persons based on U. S. foreign policy and
national security considerations. Foreign governments also have similar import and export control, and sanctions, laws, and
regulations. For additional discussion regarding our import, export, and sanctions compliance, see the discussion in Item 1A.
Risk Factors of this Annual Report on Form 10- K. Trade Secrets, Patents, and Trademarks Our use of trade secrets, proprietary
know- how, trademarks, copyrights, patents, contractual confidentiality, and IP ownership provisions helps us develop and
maintain our competitive position with respect to our products and manufacturing processes. We aggressively pursue process
and product patents in certain areas of our businesses and in certain jurisdictions across the globe. We have entered into selective
intellectual property licensing agreements. We have confidentiality and noncompetition agreements with certain personnel. We
require our U. S. employees to sign a confidentiality and noncompetition agreement upon commencement of their employment
with us. As of June 30, <del>2022-2023</del>, we had a total of approximately <del>2-3</del>, <del>100-000</del> patents globally. Executive Officers of the
Registrant The executive officers of the Company and their respective ages and positions as of June 30, 2022-2023, are set forth
below. Each executive officer listed has been appointed by the board Board of directors Directors to serve until removed or
until a successor is appointed and qualified. NameAgePositionVincent D. Mattera, Jr. 66Chair 67Chair and Chief Executive
OfficerGiovanni Barbarossa60Chief Barbarossa61Chief Strategy Officer and President, MaterialsWalter Compound
SemiconductorsWalter R. Bashaw H57PresidentMary II58PresidentMary Jane Raymond61Chief Raymond62Chief Financial
Officer and TreasurerChristopher Koeppen51Chief Koeppen52Chief Innovation OfficerJulie Sheridan Eng56Chief
Technology OfficerRonald <del>Basso62Chief <mark>Basso63Chief</mark> Legal <del>Officer a</del>nd Compliance Officer <del>and <mark>&</mark> Secretary</del></del>
<mark>SecretaryMark Sobey63President, Lasers</mark> Vincent D. Mattera, Jr. initially served as a member of the <mark>Coherent <del>II- VI board</del></mark>
Board of directors from 2000 to 2002. Dr. Mattera joined the Company as a Vice President in 2004, and served as Executive
Vice President from January 2010 to November 2013, when he became the Chief Operating Officer. He was re- appointed to
the Board in 2012. In November 2014, Dr. Mattera became the President and Chief Operating Officer <del>and was reappointed to</del>
the board of directors. In November 2015, he became the President of II-VI. In September 2016, Dr. Mattera became the
Company's third President and Chief Executive Officer in 45 years and served as the Company's President through June 2019,
when the roles of President and Chief Executive Officer were separated. Dr. Mattera became the Company's Board Chair in
November immediately following the 2021 Annual Meeting. During his career at Coherent II-VI, he has assumed
successively broader management roles, including as a lead architect of the Company's growth and diversification strategy
strategies. He-The platforms that the Company has added under his leadership provided vision, energy, and dispatch to
the Company's growth initiatives, including overseeing the acquisition-related integration activities in the United States,
Europe, and Asia, thereby establishing additional platforms. These have contributed to a new-positioning of the Company into
large and transformative global growth markets while increasing our considerably the global reach of the Company, deepening
the our technology and IP portfolio, broadening the our product roadmap and customer base, and increasing the potential of the
Company H-VI. Prior to joining the Company H-VI as an executive, Dr. Mattera had a continuous 20- year career in the
Optoelectronic Device Division of AT & T Bell Laboratories, Lucent Technologies - and Agere Systems, during which he led
the development and manufacturing of semiconductor laser- based materials and devices for optical and data communications
networks. Dr. Mattera has 39 nearly 40 years of leadership experience in the compound semiconductor materials -and device
technology, operations -and markets that are core to Company II-VI's business and strategy. Dr. Mattera holds a B. S. degree
in chemistry from the University of Rhode Island (1979), and a Ph. D. in chemistry from Brown University (1984). He
completed the Stanford University Executive Program (in 1996). He Dr. Mattera is a member of Business Roundtable and
serves on the board of the U. S.- Japan Business Council and of the Cleveland Clinic Florida Regional Board of Directors.
Giovanni Barbarossa joined the Company H-VI in October 2012 and has been the Chief Strategy Officer of the Company and
the President of the Materials Compound Semiconductors Segment since July 2019, Previously, he was the Chief Technology
Officer of the Company and the President of the Laser Solutions Segment. Dr. Barbarossa was employed at Avanex Corporation
from 2000 through 2009, serving in various executive positions in product development and general management, ultimately
serving as the President and Chief Executive Officer. When Avanex merged with Bookham Technology, forming Oclaro, Inc.,
Dr. Barbarossa became a member of the <del>board Board of <mark>directors-</mark>Directors</mark> of Oclaro and served as such from 2009 to 2012.</del>
Previously, he <mark>had <sub>beld</sub> senior-</mark>management <mark>responsibilities roles in the Optical Networking Division of Agilent Technologies</mark>
and in the Network Products Group of Lucent Technologies. He was previously a Member of Technical Staff, then Technical
Manager at British Telecom, AT & T Bell Labs, Lucent Technologies, and Hewlett Packard a Research Associate at British
Telecom Labs. Dr. Barbarossa graduated from the University of Bari, Italy, with a B. S. degree-in Electrical Engineering, and
holds has a Ph. D. in Photonics from the University of Glasgow, U. K. Walter R. Bashaw II joined the Company in 2018 and
has been President of the Company since July 2019. Mr. Bashaw previously served as Vice President of Strategy. In this
role, he was primarily responsible for the Company's <del>President since July 2019</del> M & A and integration work . Prior to
joining the Company, Mr. Bashaw served as the Company's Senior Vice President, Corporate Strategy and Development,
Administration, from October 2018 to July 2019. Previously, Mr. Bashaw served as the Company's Interim General Counsel
and Secretary from December 2015 until March 2017. Mr. Bashaw also previously was a senior partner at Managing
Shareholder and a Director of the law firm of Sherrard, German & Kelly, P. C. in Pittsburgh, Pennsylvania, until October 2018
where his areas of expertise were corporate law, mergers and Of Counsel acquisitions, and technology planning. Mr.
Bashaw holds a J. D. from the University of Pittsburgh School of Law, from which he graduated cum laude and at SGK
from October 2018 until June 2019 which he was the editor- in- chief of the University of Pittsburgh Journal of Law and
Commerce . Mr He holds a B . Bashaw graduated S. in Logistics from the Pennsylvania State University with a B. S. degree in
Logistics and also holds a J. D. degree from the University of Pittsburgh School of Law. Mary Jane Raymond has been Chief
Financial Officer and Treasurer of the Company since March 2014. Previously, Ms. Raymond was Executive Vice President and
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Chief Financial Officer of Hudson Global Inc. , from 2005 to 2013. Ms. Raymond was the Chief Risk Officer and Vice
President and Corporate Controller at Dun and Bradstreet <mark>,</mark> Inc. <mark>,</mark> from 2002 to 2005. <del>Additionally </del>In addition , she was the
Vice President, Merger Integration, at Lucent Technologies , Inc., from 1997 to 2002 , and held several management positions
at Cummins Engine Company from 1988 to 1997. In 2019, Ms. Raymond was named to the board Board of directors Directors
and Audit Committee of Veeco, Inc. Ms. Raymond holds a B. A. degree in Public Management from St. Joseph's University,
and an MBA from Stanford University. Christopher Koeppen joined the Company in 2011 following the acquisition of Aegis
Lightwave, Inc., where he served as General Manager, Aegis- NJ. He was named General Manager of the II-VI's-Agile
Network Products Division in 2012 and Director of Corporate Strategic Technology Planning in 2015. He then served as Vice
President of the Industrial Laser Group and Corporate Strategic Technology Planning from 2017 -until his appointment as Chief
Technology Officer in 2019. In October, 2022, Dr. Koeppen was appointed Chief Innovation Officer of the Company.
Previously, Dr. Koeppen was co- founder and CEO Chief Executive Officer of CardinalPoint Optics, prior to its acquisition by
Aegis Lightwave. He has more than two decades of progressively increasing general and technology management experience in
high- tech companies, including at Meriton Networks, Mahi Networks, Photuris, and Lucent Technologies. Dr. Koeppen holds a
Ph. D. in Physics from the University of Pennsylvania, where he was an AT & T Bell Laboratories Scholar, and B. S. degrees in
Physics and Mathematics from the Pennsylvania State University. Julie Sheridan Eng was appointed Chief Technology
Officer of the Company in October 2022. Prior to becoming CTO, Dr. Eng, 56, served as Senior Vice President and
General Manager of the Company's Optoelectronic Devices and Modules Business Unit. Dr. Eng joined the Company in
2019 with the acquisition of Finisar Corporation, where she held various senior management positions, including
Executive Vice President and General Manager of 3D Sensing, and Executive Vice President of Datacom Engineering.
Dr. Eng spent over 20 years in the optoelectronics and optical communications industries, including roles at AT & T,
Lucent, and Agere. Dr. Eng received her PhD and M. S. in electrical Engineering from Stanford, and an M. S. and B. A.
from Bryn Mawr College (summa cum laude) and a B. S., with honors from the California Institute of Technology
(Caltech). Ronald Basso joined the Company II- VI- in 2019 as Vice President, Corporate Development, and was named Chief
Legal and Compliance Officer and Corporate Secretary in March 2022. Previously, Mr. Basso was the Executive Vice President
of Business Development, General Counsel & Secretary for Black Box Corporation Corp. for six years. Before that, his 28-
year career at Buchanan Ingersoll & Rooney PC involved significant client engagements on corporate, governance, securities,
capital markets transactions, M & A, and executive compensation matters. He served on the Coherent II-VI-IPO team in 1987
and as Coherent II-VI's SEC counsel for 25 years until he joined Black Box. Mr. Basso holds a bachelor's degree (summa
cum laude) in Economics and a Juris Doctor degree (Order of the Coif) from the University of Pittsburgh and a J. D. degree
from the University of Pittsburgh School of Law. In addition, following the consummation of the Merger on July 1, 2022, Mark
Sobey became an executive officer of the Company and was named President of the Lasers segment following the closing of
<mark>our acquisition of Legacy Coherent in July 2022. Previously, Dr. Sobey serves served</mark> as <mark>Legacy Coherent <del>President of the</del></mark>
Company's Lasers Segment. Dr. Sobey, 62, served as Coherent Inc.'s Executive Vice President and Chief Operating Officer
from April 2020 to July 2022 through the consummation of the Merger. He was Dr. Sobey-previously served as Coherent Inc.'
s-Executive Vice President and General Manager of Coherent, Inc.'s, OEM Laser Sources until being promoted (OLS) from
2016-to COO April 2020, and before that he was Executive Vice President and General Manager of Specialty Laser Systems
(SLS) from 2010 to 2016, and Senior-Vice President and General Manager of SLS from 2007 until 2010. Prior to his service
with Legacy Coherent <del>Inc.</del>, Dr. Sobey spent over 20 years in the <del>Laser laser</del> and <del>Fiber fiber Optics optics</del>
Telecommunications telecommunications industries, including serving in Senior senior Vice vice President president roles in
Product product Management at Cymer and in Global global Sales sales at JDS Uniphase. He Dr. Sobey
received his PhD- Ph. D. in Engineering and B. BSe- Sc. in Physics from the University of Strathclyde in Scotland . In July
2023, Dr. Sobey announced his plan to retire from the Company effective September 1, 2023. Availability of Information
Our internet <del>addresses</del> -- address is are www. ii- vi. com and www. coherent, com. Information contained on our websites-
website are 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 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 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 10 % beneficial owners pursuant to Section 16 of the Exchange Act. In addition, all filings
are available via the SEC's website (www. sec. gov). We also make our corporate governance documents available on our
website, including the Company's Code of Ethical Business Conduct, Governance Guidelines, and the charters for our board
committees. All such documents are located on the Investors page of our website and are available free of charge. Item 1A.
RISK FACTORS The following are certain risk factors that could affect our business, results of operations, financial position
condition or cash flows. These risk factors should be considered along with the forward-looking statements contained in this
Annual Report on Form 10-K, because these factors could cause our actual results or financial condition to differ materially
from those projected in forward- looking statements. The following discussion is not an all-inclusive listing of risks, although
we believe these are the material risks that we face. If any of the following occur, our business, results of operations, financial
position, or cash flows could be adversely affected. 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. We continue to make
investments in programs with the goal of gaining a greater share of end markets using laser systems, semiconductor lasers and
other components ; including those used for 3D sensing, power electronics and emerging 5G technology. We cannot guarantee
that our investments in capital and capabilities will be sufficient. The potential end markets, as well as our ability to gain market
share in such markets, may not materialize on the timeline anticipated or at all. We cannot be sure of the end market price,
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specification, or yield for products incorporating our technologies. Our technologies could fail to fulfill, partially or completely,
our target customers' specifications. We cannot guarantee the end market customers' acceptance of our technologies. Further,
we may be unable to fulfill the terms of our contracts with our target customers, which could result in penalties of a material
nature, including damages, loss of market share, and loss of reputation. To meet our strategic objectives, we must develop,
manufacture, and market new products and continue to update our existing products and processes to keep pace with sudden
increases in market demand and other market developments to address increasingly sophisticated customer requirements. Our
success in developing and selling new and enhanced products and processes depends upon a variety of factors, including
strategic product selection, efficient completion of product design and development, timely implementation of manufacturing
and assembly processes, effective sales and marketing, and high-quality and successful product performance in the market. The
introduction by our competitors of products or processes using new developments that are better or faster-lower cost than ours
could render our products or processes obsolete or unmarketable. We intend to continue to make significant investments in
research, development, and engineering to achieve our goals. 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 and
maintain our competitive position and on our results of operations and / or financial condition. Some systems that use our
products are inherently complex in design and require ongoing maintenance. As a result of the technological complexity of our
products, in particular our excimer laser annealing tools used in the flat panel display capital equipment market, changes in our
or our suppliers' manufacturing processes or the inadvertent use of defective materials by us or our suppliers could result in a
material adverse effect on our ability to achieve acceptable manufacturing yields and product reliability. Our customers may also
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 correct 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 continuously monitor the marketplace for
strategic opportunities, and our business strategy includes expanding our product lines and markets through both internal
product development and acquisitions. Consequently, we expect to continue to consider strategic acquisition of businesses,
products, or technologies complementary to our business. This may require significant investments of management time and
financial resources. If market demand is outside our organic capabilities, if a strategic acquisition is required and we cannot
identify one or execute on it, and / or if financial investments that we undertake distract management, do not result in the
expected return on investment, expose us to unforeseen liabilities, or jeopardize our ability to comply with our credit facility
covenants due to any inability to integrate the business, adjust to operating a larger and more complex organization, adapt to
additional political and other requirements associated with the acquired business, retain staff, or work with customers, we could
suffer a material adverse effect on our business, results of operations, or financial condition. We have acquired several
companies, including Finisar Corporation ("Finisar") in September 2019 and Legacy Coherent in July 2022. We expect to
expand and diversify our operations with additional acquisitions, but we may be unable to identify or complete prospective
acquisitions for many reasons, including increasing competition from other potential acquirers, the effects of consolidation in
our industries, and potentially high valuations of acquisition candidates. In addition, applicable antitrust competition laws and
other regulations may limit our ability to acquire targets, integrate businesses, or force us to divest an acquired business line. If
we are unable to identify suitable targets or complete acquisitions, our growth prospects may suffer, and we may not be able to
realize sufficient scale and technological advantages to compete effectively in all markets. To the extent that we complete
acquisitions, we may be unsuccessful in integrating acquired companies or product lines with existing operations, or the
integration may be more difficult or more costly than anticipated. We expect-incurred substantial expenses related to the
acquisition of Legacy Coherent and we continue to incur substantial expenses related to the acquisition of Coherent and the
related integration of Legacy Coherent and its subsidiaries. Some of the risks that may affect our ability to integrate or realize
anticipated benefits from acquired companies, businesses, or assets include those associated with: • unexpected losses of key
employees of the acquired company; • conforming standardizing the acquired combined company's standards, processes,
procedures, and controls with our operations, including integrating enterprise resource planning systems and other key business
applications; • coordinating new product and process development; • increasing complexity from combining operations; •
increasing the scope, geographic diversity, and complexity of our operations; • difficulties in consolidating facilities and
transferring processes and know- how; • diversion of management's attention from other business concerns; and • actions we
may take in connection with acquisitions, such as: ousing a significant portion of our available cash; oissuing equity securities,
which would dilute current shareholders' percentage ownership; o incurring significant debt; o incurring or assume contingent
liabilities, known or unknown, including potential lawsuits, infringement actions, or similar liabilities; o incurring impairment
charges related to goodwill or other intangibles; and o facing antitrust or other regulatory inquiries or actions. In addition, the
market prices of our outstanding securities could be adversely affected if the effect of any acquisitions on our consolidated
financial results is dilutive or is below the market's or financial analysts' expectations, or if there are unanticipated changes in
the business or financial performance of the acquired or combined company. Any failure to successfully integrate acquired
businesses may disrupt our business and adversely impact our business, results of operations, or financial condition. The success
of our acquisitions will depend in large part on our success in integrating the acquired operations, strategies, technologies, and
personnel. We may fail to realize some or all of the anticipated benefits of an acquisition if the integration process takes longer
than expected or is more costly than expected. If we fail to meet the challenges involved in successfully integrating any acquired
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operations or to otherwise realize any of the anticipated benefits of an acquisition, including any expected cost savings and synergies, our operations could be impaired. In addition, the overall integration of an acquired business can be a timeconsuming and expensive process that, without proper planning and effective and timely implementation, could significantly disrupt our business. Potential difficulties that we may encounter in the integration process include: • the integration of management teams, strategies, technologies and operations, products, and services; • the disruption of ongoing businesses and distraction of their respective management teams from ongoing business concerns; • the retention of, and possible decrease in business from, existing customers; • the creation of uniform standards, controls, procedures, policies, and information systems; • the reduction of the costs associated with combined operations; • the integration of corporate cultures and maintenance of employee morale; • the retention of key employees; and • potential unknown liabilities associated with the acquired business. The anticipated cost savings, synergies, and other benefits of any acquisition typically assume a successful integration of the acquired business and are based on projections and other assumptions, which are inherently uncertain. Even if integration is successful, anticipated cost savings, synergies, and other benefits may not be achieved. We anticipate that international sales will continue to account for a significant portion of our revenues for the foreseeable future. The failure to maintain our current volume of international sales could materially affect our business, results of operations, financial condition, and / or cash flows. We manufacture products in numerous countries worldwide. Our operations vary by location and are influenced on a locationby-location basis by local customs, languages, and work practices, as well as different local weather conditions, management styles, and education systems. In addition, multiple complex issues may arise concurrently in different countries, potentially hampering our ability to respond in an effective and timely manner. Any inability to respond in an effective and timely manner to issues in our global operations could have a material adverse effect on our business, results of operations, or financial condition. financial condition, cash flows, and profitability. Obtaining export licenses can be difficult, time- consuming and require interpretation of complex regulations. Failure to obtain and / or retain export licenses for these shipments could significantly reduce our revenue and materially adversely affect our business, financial condition, results of operations and relationships with our customers and results of operations. Additionally, failure to comply with the various regulatory requirements could subject us to significant fines, suspension of export privileges or disbarment. Additionally, we are subject to the passage of and changes in the interpretation of regulation by U.S.government entities at the federal, state, and local levels and by non- U.S. agencies, including, but not limited to, the following: • We are required to comply with import laws and export control and economic sanctions laws, which may affect our ability to enter into or complete transactions with certain customers, business partners, and other persons. In certain circumstances, export control and economic sanctions regulations may prohibit the export of certain products, services, and technologies. We may be required to obtain an export license before exporting a controlled item, and granting of a required license cannot be assured. Compliance with the 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 technologies ,including,but not limited to,equipment necessary to develop and manufacture certain products are subject to U.S. export control laws and similar laws of other jurisdictions. We 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 certain instances, these regulations may prohibit us from developing or manufacturing certain of our products for specific applications outside the United States. Failure to comply with any of these laws and regulations could result in civil and criminal, monetary, and nonmonetary penalties; disruptions to our business; limitations on our ability to import and export products and services; and damage to our reputation. In March 2018, We make significant decisions based on our estimates of customer requirements. We use our estimates to determine the levels of business we seek and accept, production schedules, personnel needs, and other resource requirements. Customers may require rapid increases in production on short notice. We may not be able to purchase sufficient supplies or allocate sufficient manufacturing capacity to meet such increases in demand. Rapid customer ramp- up and significant increases in demand may strain our resources or negatively affect our margins. Inability to satisfy customer demand in a timely manner may harm our reputation, reduce our other opportunities, damage our relationships with customers, reduce revenue growth, and / or cause us to incur contractual penalties. Alternatively, downturns in the industries in which we compete may cause our customers to significantly and abruptly reduce their demand, or even cancel orders. With respect to orders we initiate with our suppliers to address anticipated demand from our customers, certain suppliers may have required noncancellable purchase commitments or advance payments from us, and those obligations and commitments could reduce our ability to adjust our inventory or expense levels to reflect declining market demands. Unexpected declines in customer demands can result in excess or obsolete inventory and additional charges. Because certain of our sales, research and development, and internal manufacturing overhead expenses are relatively fixed, a reduction in customer demand likely would decrease our gross margins and operating income. 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 that are more extensive than ours. They 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. Our failure to compete effectively could have a material adverse effect on our business, results of operations, or financial condition. Our business is dependent on the demand for products produced by end-users of industrial lasers, optical communication communications products, electronics components for semiconductor capital equipment, and instrumentation markets components for 3D sensing. 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 these cyclical fluctuations. Fluctuations in demand could have a material adverse effect on our business, results of operations or financial condition. Customers often view the purchase of our products as a significant and strategic decision. As a result, customers typically expend significant effort in evaluating, testing and qualifying our products before making a decision to purchase them, resulting in a lengthy design- in sales cycle. While our customers are evaluating our products and before they

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place an order with us, we may incur substantial sales and marketing and research and development expenses to customize our
products to the customers' needs. We may also expend significant management efforts, increase manufacturing capacity and
increase inventory of long lead- time components or materials prior to receiving an order. Even after this evaluation process, a
potential customer may not purchase our products. As a result, these long sales cycles may cause us to incur significant
expenses without ever receiving revenues to offset such expenses. We have supply agreements with some customers that require
us to supply products and allocate sufficient capacity to make these products. We have also agreed to pricing schedules and
methodologies that could result in penalties if we fail to meet development, supply, capacity, and quality commitments. Failure
to do so may cause us to be unable to generate the amount of revenue or the level of profitability we expect from these
arrangements. Our ability to realize a profit under some of these agreements will be subject to the level of customer demand, the
cost of maintaining facilities and manufacturing capacity, and supply chain capability. If we fail to fulfill our commitments
under these supply agreements, our business, after using all remedies available, financial conditions, and results of operations
may suffer a material adverse effect. Our operations are dependent upon a supply chain of difficult- to- make or difficult- to-
refine products and materials -, including integrated circuits, mechanical housings and optical components, and Some
some of our product inflow is subject to yield reductions from growth or fabrication losses, and thus the quantities we may
receive are not consistently predictable. Customers may also change a specification for a product that our suppliers cannot meet
which may limit and / or otherwise impact our ability to supply such customers. Some of our products, particularly for
example in the OLED display industry, require designs and specifications that are at the cutting- edge of available technologies
and change frequently to meet rapidly evolving market demands. By their very nature, the types of components used in such
products can be difficult and unpredictable to manufacture and may only be available from a single supplier, which increases the
risk that we may not obtain such components in a timely manner. Identifying alternative sources of supply for certain
components could be difficult and costly, result in management distraction in assisting our current and future suppliers to meet
our and our customers 'technical requirements, and cause delays in shipments of our products while we identify, evaluate and
test the products of alternative suppliers. Any such delay in shipment would result in a delay or cancellation of our ability to
convert such order into revenues. Furthermore, financial or other difficulties faced by these suppliers or significant changes in
demand for these components or materials could limit their availability. We continue to consolidate our supply base and move
supplier locations. When we transition locations, we may increase our inventory of such products as a "" safety stock "" during
the transition, which may cause the amount of inventory reflected on our balance sheet to increase. Additionally, many of our
customers rely on sole source suppliers. In the event of a disruption of our customers' supply chain, orders from our customers
could decrease or be delayed. We also make products of which we are one of the world's largest suppliers. We use high-
quality, optical-grade ZnSe in the production of many of our IR optical products. We are a 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. Lack of adequate availability of high- quality ZnSe could have a material adverse
effect upon our business. There can be no assurance that we will not experience manufacturing yield inefficiencies that 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 the gas. Our potential inability to internally
produce hydrogen selenide could have a material adverse effect on our business, results of operations, or financial condition. In
addition, we use rare earth minerals and produce and use other high-purity and relatively uncommon materials and
compounds to manufacture our products, including, but not limited to, ZnS, GaAs, vttrium aluminum garnet, vttrium lithium
fluoride, calcium fluoride, germanium, selenium, telluride, Bi2Te3, and SiC. A significant failure of our internal production
processes or our suppliers to deliver sufficient quantities of these necessary materials (including, in the case of rare earth
minerals, as a consequence of their limited diminished availability) on a timely basis could have a material adverse effect on
our business, results of operations, or financial condition. Furthermore, we have historically relied exclusively on our own
production capability to manufacture certain strategic components, crystals, semiconductor lasers, fiber, lasers and laser- based
systems. We also manufacture certain large format optics. Because we manufacture, package and test these components,
products and systems at our own facilities, and such components, products and systems are not readily available from other
sources, any interruption in manufacturing would adversely affect our business .The semiconductor capital equipment market
is characterized by rapid technological change, frequent product introductions, the volatility of product supply and
demand, changing customer requirements and evolving industry standards. The nature of this market requires significant research
and development expenses to participate, with substantial resources invested in advance of material sales of our products to our
customers in this market. Additionally, our product offerings may become obsolete given the frequent introduction of alternative
technologies. In the event either our customers' or our products fail to gain market acceptance, or the microelectronics
semiconductor capital equipment market fails to grow, it would likely have a significant negative effect on our business and
results of operations. In the flat panel display capital equipment market, it is unclear when the timing will be, or whether it will
occur at all, for any further build- out of fabs for the manufacture of OLED screens, and there are a relatively limited number of
manufacturers who are the end customers for our annealing products. Given macroeconomic conditions, varying consumer
demand and technical process limitations at manufacturers, we may see fluctuations in orders, including periods with no or few
orders, and our customers may seek to reschedule or cancel orders. Additionally, challenges in meeting evolving technological
requirements for these complex products by us and our suppliers could result in delays in shipments and rescheduled or
cancelled orders by our customers. This could negatively impact our backlog, timing of revenues and results of operations. The
Laser segment service revenue can experience fluctuations driven by market demand as well as customer factors such as
inventory management and the ability to run some systems at lower power levels during times of lower demand from
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their external customers. This can impact short- term service demand and cause some fluctuations in the Laser segment
service revenues. We are exposed to a variety of market risks,including the effects of increases in commodity prices and
diminished availability of rare earth minerals and noble gases .Our businesses purchase,produce,and sell <del>high- purity</del>
selenium and other raw materials based upon quoted market prices from minor metal exchanges. The negative impact from
increases in commodity prices and diminished availability of rare earth minerals and noble gases might not be recovered
through our product sales, which could have a material adverse effect on our net earnings and financial condition .In March
2018, the United States announced new steel and aluminum tariffs. Then, in July 2018, the United States imposed increased
tariffs on products of Chinese origin, and China responded by increasing tariffs on U.S.- origin goods. On the export
side, denial orders and placing companies on the U.S. Entity List could decrease our access to customers and markets and
materially impact our revenues in the aggregate. In April 2018, for example, the U.S. Department of Commerce issued a
denial order against two companies in the telecommunications market. In 2019 and 2020, the U.S. Department of
Commerce placed a number of entities on the U.S.Entity List.If we cannot obtain relief from,or take other action to
mitigate the impact of, these additional duties and restrictions and duties, our business and profits may be materially and
adversely affected. Further changes in the trade policy of the United States or of other countries in which we do cross-
border business, or additional sanctions, could result in retaliatory actions by other countries that could materially and
negatively impact the volume of economic activity in the United States or globally, which, in turn, may decrease our access
to customers and markets, reduce our revenues, and increase our operating costs. Our association with customers that are
or become subject to U.S.regulatory scrutiny or export restrictions could negatively impact our business and create
instability in our operations. Governmental actions such as these could subject us to actual or perceived reputational
harm among current or prospective investors, suppliers or customers, customers of our customers, other parties doing
business with us, or the general public. Any such reputational harm could result in the loss of investors, suppliers, or
customers, which could harm our business, financial condition, operating results, or prospects. Exports of certain of our
products are subject to export controls imposed by the U.S.government and administered by the U.S.Departments of
State and Commerce.In certain instances, these regulations may require pre- shipment authorization from the
administering department. For products subject to the Export Administration Regulations (EAR), administered by the
Department of Commerce's Bureau of Industry and Security, the requirement for a license is dependent on the type and
end use of the product, the final destination, the identity of the end user, and whether a license exception might
apply. Virtually all exports of products subject to the International Traffic in Arms Regulations (ITAR), administered by
the Department of State's Directorate of Defense Trade Controls, require a license. Certain of our products are subject to
EAR controls. Additionally, certain other products that we sell, including certain products developed with government
funding, are subject to ITAR. Products developed and manufactured in our foreign locations are subject to export
controls of the applicable foreign nation. Given the current global political climate, obtaining export licenses can be
difficult and time- consuming. Failure to obtain export licenses for these shipments, or having one or more of our
customers be restricted from receiving exports from us, could significantly reduce our revenue and materially adversely
affect our business, financial condition, and results of operations. Compliance with regulations of the United States and
other governments also subjects us to additional fees and costs. The absence of comparable restrictions on competitors in
other countries may adversely affect our competitive position. The outbreak of a widespread health crisis, whether global in
scope or localized in an area in which we, our customers or our suppliers do business, could have a material adverse effect on our
operations and the operations of our suppliers and customers. Potential impacts on our operations include: • significant reductions
in demand for one or more of our products or a curtailment to one or more of our product lines caused by among other
things, any temporary inability of our customers to purchase and utilize our products in next- stage manufacturing due to
shutdown orders or financial hardship: workforce constraints triggered by any applicable shutdown orders or stay- at- home
polices; disruptions to our third- party manufacturing and raw materials supply arrangements caused by constraints over our
suppliers' workforce capacity, financial, or operational difficulties; disruption in our own ability to produce and ship
products, including components we use in the production of other products; heightened risk and uncertainty regarding the loss or
disruption of essential third- party service providers, including transportation services, contract manufacturing, marketing, and
distribution services; requirements to comply with governmental and regulatory responses such as quarantines, import / export
restrictions, price controls, or other governmental or regulatory actions, including closures or other restrictions that limit or close
our operating and manufacturing facilities, restrict our workforce's ability to travel or perform necessary business functions, or
otherwise impact our suppliers or customers, which could adversely impact our operating results; and • increased operating
expenses and potentially reduced efficiency of operations. For example,in response to <del>In the early stages of the outbreak of</del> the
global novel coronavirus disease 2019 (COVID- 19) in 2020, we have focused closely monitored the impact of the COVID- 19
pandemic on all aspects of our business, including the impact to our suppliers, customers, and employees, as well as the impact to
the countries and markets in which we operate. We began focusing intensely on mitigating the adverse impacts of COVID-19
on our foreign and domestic operations starting by protecting our employees, suppliers, and eustomers. We have modified our
business practices for the continued health and safety of our employees .We - including, among other things, implementing a
remote work policy to the fullest extent possible, a limited travel policy, the distribution of and mandatory use of personal
protective equipment, reorganizing and adjusting the timing of manufacturing personnel shifts, temperature monitoring for
entering our facilities, and a social distancing policy- and we may take further actions, or be required to take further actions, that
are in the best interests of our employees. Our suppliers, distributors and customers have also implemented similar
measures, which has to mitigate the adverse impacts of COVID-19, which resulted in, and may we expect it will-continue to
result in, disruptions or delays and higher costs . The implementation of health and safety practices by us or our
suppliers, distributors or customers could impact customer demand, supplier deliveries, our productivity, and costs, which could
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have a material adverse impact on our business, financial condition and results of operations. While we believe that we have
been successful in identifying, managing, and mitigating the economic disruption impacts of the COVID-19 pandemic on us, we
cannot provide any assurance that we similarly will be able to mitigate the impacts of any future widespread health
crises, including as a result of any variants of COVID-19. Factors beyond The implementation of health and safety practices
by us our- or current knowledge or our control suppliers, distributors or customers including the duration and severity of
any outbreak, as well as any resulting governmental and regulatory actions, could cause any such crisis to impact customer
demand, supplier deliveries, our productivity, and costs, which could have a material adverse effect impact on our business,
operating results, and financial condition and results of operations. 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 of 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
the industrial, aerospace and defense, optical-communications, telecommunications, semiconductor, consumer, microelectronics-
-- electronics and precision manufacturing, instrumentation and life science markets in which we participate. All aspects of our
forecasts depend on estimates of growth or contraction in the markets we serve. Thus, prevailing global economic uncertainties
render estimates of future income and expenditures very difficult to make. Global economic downturns may affect industries in
which our customers operate. These changes could include decreases in the rate of consumption or use of our customers'
products. 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. For example, factors that may affect our operating results include disruption in the credit and financial markets in the
United States, Europe, and elsewhere, adverse effects of slowdowns in the U.S., European, Chinese or other Asian
economies, reductions or limited growth in consumer spending or consumer credit, global trade tariffs, and other adverse
economic conditions that may be specific to the Internet,e- commerce, and payments industries. These changes may negatively
affect sales of products and increase exposure to losses from bad debt and commodity prices, the cost and availability of
financing, and 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. We conduct our business and incur costs in the local
currency of most countries in which we operate. We incur currency transaction risk whenever one of our operating subsidiaries
enters into either a purchase or a sales transaction using a different currency from the currency in which it operates, or holds
assets or liabilities in a currency different from its functional currency. Changes in exchange rates can also affect our results of
operations when the value of sales and expenses of foreign subsidiaries are translated to U.S.dollars. We cannot accurately
predict the impact of future exchange rate fluctuations on our results of operations. Further, given the volatility of exchange
rates, we may not be able to effectively manage our currency risks, and any volatility in currency exchange rates may increase the
price of our products in local currency to our foreign customers or increase the manufacturing cost of our products, either of
which may have an adverse effect on our financial condition, cash flows, and profitability. We may incur losses related
Obtaining export licenses can be difficult, time-consuming and require interpretation of complex regulations. Failure to obtain
export licenses for foreign currency fluctuations, and foreign exchange controls may prevent us from repatriating cash in
countries outside these -- the shipments could significantly reduce our revenue and materially U.S.Prolonged periods of
inflation have the potential to adversely affect our business, results of operations, financial condition, relationships with our
eustomers and liquidity by increasing results of operations. Additionally, failure to comply with the various regulatory
requirements could subject us to significant fines, suspension of export privileges or our disbarment. Additionally overall cost
structure, particularly if we are subject unable to achieve commensurate increases in the prices we passage of and changes
- <mark>charge our customers in the interpretation of regulation by U. S.government entities at The existence of inflation in</mark> the
federal, state, and local levels and by non-U.S. agencies, including, but not limited to, the following: * We are required to comply
with import laws and export control and economic economy has and sanctions laws, which may continue affect our ability to
enter into or complete transactions with certain customers result in higher interest rates and capital costs, business partners
supply shortages, increased costs of labor and other persons. In certain circumstances, export control and economic sanctions
regulations may prohibit the export of certain products, services, and technologies. We may be required to obtain an export license
before exporting a controlled item, and granting of a required license cannot be assured. Compliance with the 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 technologies necessary to develop and manufacture certain products are subject to
U.S. export control laws and similar effects laws of other jurisdictions. We 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 certain instances, these regulations may prohibit us from developing or manufacturing certain of our
products for specific applications outside the United States. Failure to comply with any of these laws and regulations could result
in civil and criminal, monetary, and nonmonetary penaltics; disruptions to our business; limitations on our ability to import and
export products and services; and damage to our reputation. In March 2018, President Trump announced new steel and aluminum
tariffs. Then, in July 2018, the United States imposed increased tariffs on products of Chinese origin, and China responded by
increasing tariffs on U.S.- origin goods. On the export side, denial orders and placing companies on the U.S. entity list could
decrease our access to customers and markets and materially impact our revenues in the aggregate. In April 2018, for example, the
U.S.Department of Commerce issued a denial order against two companies in the telecommunications market. In 2019 and
2020, the U.S. Department of Commerce placed a number of entities, including Huawei, on the U.S. Entity List. If we cannot
obtain relief from or take other action to mitigate the impact of these additional duties and restrictions and duties our business
and profits may be materially and adversely affected. Further changes in the trade policy of the United States or of other
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countries in which we do cross-border business, world events or additional sanctions, could result in retaliatory actions by
other countries that could materially and negatively impact the volume of economic activity in the United States or
globally, which, in turn, may decrease our access to customers and markets, reduce our revenues, and increase our operating
eosts. Our association with customers that are or become subject to U.S. regulatory scrutiny or export restrictions could
negatively impact our business and create instability in our operations. Governmental actions-such as these -- the conflict
between Russia and Ukraine could subject us-affect inflationary trends. As a result of inflation, we have experienced and
may continue to actual experience, increases in or our perceived reputational harm among costs associated with operating
our business including labor, equipment and other inputs. Additionally, our borrowing costs, including those under our
current or prospective investors, suppliers or customers, customers of our customers, other parties doing business with us, or the
general public. Any such reputational harm could result in the loss of investors, suppliers, or customers, which could harm our
business, financial condition, operating results, or prospects. Exports of certain of our products are subject to export controls
imposed by the U.S.government and administered by the U.S.Departments of State and Commerce. In certain instances, these
regulations may require pre-shipment authorization from the administering department. For products subject to the Export
Administration Regulations (EAR), administered by the Department of Commerce's Bureau of Industry and Security, the
requirement for a license is dependent on the type and end use of the product, the final destination, the identity of the end
user, and whether a license exception might apply. Virtually all exports of products subject to the International Traffic in Arms
Regulations (ITAR), administered by the Department of State's Directorate of Defense Trade Controls, require a license. Certain
of our products are subject to EAR controls. Additionally, certain other products that we sell, including certain products developed
with government funding, are subject to ITAR. Products developed and manufactured in our foreign locations are subject to
export controls of the applicable foreign nation. Given the current global political climate, obtaining export licenses can be
difficult and time-consuming. Failure to obtain export licenses for these shipments, or having one or more of our customers be
restricted from receiving exports from us, could significantly reduce our revenue and materially adversely affect our
business, financial condition, and results of operations. Compliance with regulations of the United States and other governments
also subjects us to additional fees and costs. The absence of comparable restrictions on competitors in other countries may
adversely affect our competitive position. Our credit agreement, dated as of July 1,2022, by and among us, the lenders and other
parties thereto, and JP Morgan Chase Bank, NA, as administrative agent and collateral agent (the "New Credit Agreement")
increase or decrease (i.e.," float ") based on interest rate benchmarks.As governments increase interest rate benchmarks,
to combat inflation, our borrowing costs increase. Although we may take measures to mitigate the impact of this inflation
through pricing actions, efficiency gains and interest rate hedging, if these measures are not effective our business, results
of operations, financial position and liquidity could be materially adversely affected. Even if such measures are
effective, there could be a difference between the timing of when these beneficial actions impact our results of operations
and when the cost of inflation is incurred.Our Credit Agreement contains a number of restrictive covenants that may impose
operating and financial restrictions on us and limit our ability to engage in acts that may be in our long-term best
interest, including restrictions on our ability to incur indebtedness, grant liens, undergo certain fundamental changes, fund non-US
operations, dispose of assets, make certain investments, enter into certain transactions with affiliates, and make certain restricted
payments, in each case subject to limitations and exceptions set forth in the New-Credit Agreement. The New-Credit Agreement
also contains customary events of default that include, among other things, certain payment defaults, covenant defaults, cross-
defaults to other indebtedness, change of control defaults, judgment defaults, and bankruptcy and insolvency defaults. Such events
of default may allow the creditors to accelerate the related debt and may result in the acceleration of any other debt to which a
cross- acceleration or cross- default provision applies, which could have a material adverse effect on our business, operations, and
financial results. Furthermore, if we are unable to repay the amounts due and payable under the New Credit Agreement, those
lenders could proceed against the collateral granted to them to secure that indebtedness, which could force us into bankruptcy or
liquidation. In the event that our lenders accelerated the repayment of the borrowings, we may not have sufficient assets to repay
that indebtedness. Any acceleration of amounts due under the New-Credit Agreement would likely have a material adverse effect
on us. As a result of these restrictions, we may be limited in how we conduct business, unable to raise additional debt or equity
financing to operate during general economic or business downturns, or unable to compete effectively or to take advantage of
new business opportunities. In addition, we may enter into other credit agreements or other debt arrangements from time to time
which contain similar or more extensive restrictive covenants and events of default, in which case we may face similar or
additional limitations as a result of the terms of those credit agreements or other debt arrangements. We from time to time borrow
under our existing credit facility or use proceeds from sales of our securities to fund portions of our operations, including working
capital investments and financing of our acquisition strategies. In the past, market disruptions experienced in the United States
and abroad have materially impacted liquidity in the credit and debt markets, making financing terms for borrowers less
attractive and, in certain cases, have resulted in the unavailability of certain types of financing. Uncertainty in the financial
markets may negatively impact our ability to access additional financing or to refinance our existing debt arrangements on
favorable terms or at all, which could negatively affect our ability to fund current and future expansion as well as future
acquisitions and development. These disruptions may include turmoil in the financial services industry, volatility in the markets
where our outstanding securities trade, and changes in general economic conditions in the areas where we do business. If we are
unable to access funds at competitive rates, or if our short-term or long-term borrowing costs increase, our ability to finance our
operations, meet our short-term obligations, and implement our operating strategies could be adversely affected. In the future, we
may be required to raise additional capital through public or private financing or other arrangements. Such financing may not be
available on acceptable terms or at all, and our failure to raise capital when needed could harm our business and
prospects. Additional equity financing may be dilutive to the holders of our outstanding capital stock, and debt financing, if
available, may involve restrictive covenants that may limit our ability to undertake certain activities that we otherwise would find
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to be desirable. Further, debt service obligations associated with any debt financing could reduce our profitability. If we cannot
raise funds on acceptable terms, we may not be able to grow our business or respond to competitive pressures. We rely on a
combination of trade secret, patent, copyright, and trademark laws, combined with employee confidentiality, noncompetition, and
nondisclosure agreements to protect our intellectual property rights .We cannot ensure that our employees with key
knowledge will not be employed by our competitors. There can be no assurance that the steps we take 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. In the event that 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 spend substantial amounts in
order to obtain a license or modify processes so that they no longer infringe such proprietary rights. Any such event could have a
material adverse effect on our business, results of operations, or financial condition. The design, processes, and specialized
equipment utilized in our engineered materials, advanced components, and subsystems are innovative, 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
materials, devices, equipment, configurations, and processes, and others could obtain patents covering technology similar to
ours. 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 that
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. We also enter into development projects from time to time that might result in intellectual property
developed during a project that is assigned to the other party without us retaining rights to that intellectual property or is jointly
owned with the other party. We manufacture products in numerous countries worldwide. Operations inside and outside of the
United States are subject to many legal and regulatory requirements, some of which are not aligned with others. These include
tariffs, quotas, taxes and other market barriers, restrictions on the export or import of technology, potentially limited intellectual
property protection, import and export requirements and restrictions, anti- corruption and anti- bribery laws, foreign exchange
controls and cash repatriation restrictions, foreign investment rules and regulations, data privacy requirements, competition
laws, employment and labor laws, pensions and social insurance, and environmental health and safety laws and
regulations. Compliance with these laws and regulations can be onerous and expensive, and requirements differ among
jurisdictions. New laws, changes in existing laws, and abrogation of local regulations by national laws may result in significant
uncertainties in how they will be interpreted and enforced. Failure to comply with any of these foreign laws and regulations
could have a material adverse effect on our business, results of operations, or financial condition. We may face particular data
privacy and, security and data protection risks due to laws and regulations regulating the protection or security of personal and
other sensitive data, including in particular several laws and regulations that have recently been enacted or adopted or are likely
to be enacted or adopted in the future. For instance, effective May 25,2018, the European General Data Protection Regulation ("
GDPR") imposed additional obligations and risk upon our business and increased substantially the penalties to which we could
be subject in the event of any non-compliance.GDPR requires companies to satisfy requirements regarding the handling of
personal data (generally, of EU residents), including its use, protection and the rights of affected persons regarding their
data. Failure to comply with GDPR requirements could result in fines of up to 20 million Euro or 4 % of global annual
revenues, whichever is higher. We have taken extensive measures to ensure compliance with GDPR and to minimize the risk of
incurring any penalties and we continue to adapt to the developing interpretation and enforcement of GDPR as well as emerging
best practice standards.For example, we have <mark>established a privacy program office that oversees global compliance of</mark>
privacy laws (including GDPR), introduced <del>an international Data Protection Organization,</del> a <del>European</del>-Data Protection Policy,
implemented a security system for <del>Data data Protection protection Management management and Documentation and </del>
implemented an and updated our international Intra Group Data Transfer Agreement to including include the new EU
Standard Contractual Clauses. In addition, several other jurisdictions around the world have recently enacted privacy laws or
regulations similar to GDPR.For instance, California enacted the California Consumer Privacy Act ("CCPA"), which became
effective January 1,2020, and which gives consumers and employees many of the same rights as those available under GDPR.
Several Similar laws similar to the CCPA have been proposed enacted in the United States at both the federal and state level.
Like GDPR, other similar Compliance with global privacy and security laws and regulations, as well as any associated
inquiries or investigations or any other government actions, may be costly to comply with, result in negative publicity, increase
our operating costs, require significant management time and attention, and subject us to remedies that may harm our business. As
and additional example, <del>There there</del> <del>also</del> have also been recent <del>significant</del> developments concerning privacy and data security
in China, where we have significant operations. For example, the Data Security Law of the People's Republic of China (the "
Data Security Law ") took effect in September 2021. The Data Security Law imposes data security and privacy obligations on
entities and individuals carrying out data processing activities and also introduces a data classification and hierarchical
protection system based on the importance of data in economic and social development and the degree of harm it may cause to
national security, public interests, or legitimate rights and interests of individuals or organizations if such data are tampered
with, destroyed, leaked, illegally acquired, or illegally used. The appropriate level of protection measures is required to be taken for
each respective category of data. Further, the Personal Information Protection Law (the "PIPL") took effect in China in
November 2021. The PIPL raises the protection requirements for processing personal information and requires government
approval to conduct personal data transfers outside of China. We have submitted our application with Cyberspace
Administration of China and are awaiting approval. Because many specific requirements of the PIPL remain to be
clarified, the ultimate impact of the PIPL currently is unknown. Fines for PIPL violations range from $7.7M to up to 5 % of the
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infringing company's previous year's revenues. We may be required to make adjustments to our business practices to comply
with the personal information protection laws and regulations in China as they evolve. In the course of our business, we collect
and store sensitive data, including intellectual property (both our own and that of our customers), as well as proprietary business
information. We also maintain personal and confidential data regarding our employees. We could be subject to service
outages or breaches of security systems which may result in disruption, unauthorized access, misappropriation, or corruption of
this information. 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, and unauthorized
disclosure of confidential information. If we are unable to prevent or contain such security or privacy breaches, our operations
could be disrupted or we could suffer legal claims, loss of reputation, financial loss, property damage, or regulatory
penalties. Hazardous substances used or generated in some of our research and manufacturing facilities are subject to stringent
environmental and safety regulation regulations. We believe that our handling of such substances is in material compliance
with applicable environmental, safety, and health regulations at each operating location. We invest substantially in facility and
infrastructure design, proper personal protective equipment and process controls, including specialized monitoring equipment
and specialized training, to minimize risks to our facilities, employees, surrounding communities, and the environment that could
result from the presence and handling of such hazardous substances. When exposure problems or potential exposure problems
have been uncovered, corrective actions have been implemented, and re-occurrence has been minimal or nonexistent. We have in
place emergency response plans with respect to our generation and use of the hazardous gases, which include hydrogen
selenide, hydrogen sulfide, arsine, phosphine, and silane. Special attention has been given to all procedures pertaining to these
gaseous materials to minimize the chance of accidental release into the atmosphere and to provide for an integrated system for
monitoring and mitigating risk. 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. From time to time new regulations are enacted, and it is difficult to anticipate how such regulations will be implemented
and enforced. We continue to evaluate the necessary steps for compliance with regulations as they are enacted. The
implementation of such regulations may require us to incur additional costs and expend internal resources. Although we do not
know of any material environmental, safety, or health problems in our properties, processes, or products, there can be no assurance
that problems will not develop in the future that could have a material adverse effect on our business results of operations or
financial condition. As of June 30, <del>2022-</del>2023 ,we had approximately $ 2-4.3 billion of outstanding indebtedness on a
consolidated basis . Immediately following the closing of the Coherent acquisition on July 1,2022, we had $ 5.0 billion of
outstanding indebtedness, including under (i) our $ 850 million senior secured term loan A facility (the "Term A Facility"), (ii)
our $ 2.8 billion senior secured term loan B facility (the "Term Loan B Facility", and together with the Term A Facility, the "
Senior Credit Facilities") and ( ii-iii) our $ 990 million 5.000 % senior notes due 2029 (the " 2029 Notes").Additionally we
have $ 350 348 million of undrawn capacity under our senior secured revolving credit facility (the "Revolving Credit Facility")
.We may also incur additional indebtedness in the future by entering into new financing arrangements.Our indebtedness could
have important consequences for us, including: making it difficult for us to satisfy all of our obligations with respect to our
debt, or to our trade or other creditors; increasing our vulnerability to adverse economic or industry conditions; limiting our
ability to obtain additional financing to fund capital expenditures and acquisitions particularly when the availability of financing
in the capital markets is limited; requiring us to pay higher interest rates upon refinancing or on our variable- rate indebtedness
if interest rates rise; requiring a substantial portion of our cash flows from operations and the proceeds of any capital markets
offerings or loan borrowings for the payment of interest on our debt and reducing our ability to use our cash flows to fund
working capital, capital expenditures, acquisitions, and general corporate requirements; • limiting our flexibility in planning for, or
reacting to, changes in our business and the industries in which we operate; and • placing us at a competitive disadvantage to less
leveraged competitors. We may not generate sufficient cash flow from operations, together with any future borrowings, to enable
us to pay our indebtedness or to fund our other liquidity needs. We may need to refinance all or a portion of our indebtedness, on
or before its maturity. We may not be able to refinance any of our indebtedness on commercially reasonable terms or at all. In
addition, we may incur additional indebtedness in order to finance our operations, fund acquisitions, or repay existing
indebtedness. If we cannot service our indebtedness, we may have to take actions such as selling assets, pursuing sales of
additional debt or equity securities, or reducing or delaying capital expenditures, strategic acquisitions, investments, or
alliances. Any such actions, if necessary, may not be able to be effected on commercially reasonable terms or at all, or on terms
that would be advantageous to our stockholders, or on terms that would not require us to breach the terms and conditions of our
existing or future debt agreements. Certain of our financial arrangements, including our Senior Credit Facilities, are made at
variable rates that use interbank offered rates, or IBORs, including the London Interbank Offered Rate, or LIBOR (or metrics
derived from or related to LIBOR), as a benchmark for establishing the interest rate. IBORs are or have been reformed, may cease
to be available or may be declared to be no longer representative of the underlying market and economic realities. In such a case
IBORs and specifically LIBOR may need to be replaced with a replacement rate. In March 2021, the United Kingdom's
Financial Conduct Authority, which regulates LIBOR, announced that it intends to cease or otherwise declare as no longer
representative certain LIBOR settings on December 31,2021 and the remainder of the U.S.dollar LIBOR settings on June
30,2023. The New-Credit Agreement contains provisions addressing the end of the use of LIBOR as a benchmark rate of interest
and a mechanism for determining an alternative benchmark rate of interest. At this time, we cannot predict how markets will
respond to reform or the proposed alternative rates or the effect of any changes to IBORs or the discontinuation or non-
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representativeness of LIBOR. New methods of calculating IBORs that may be established or the establishment of alternative
reference rates could have an adverse impact on the market value for or value of IBOR- linked securities, loans and other
financial obligations or extensions of credit held by or due to us. Changes in market interest rates may influence our financing
eosts, returns on financial investments and the valuation of derivative contracts and could reduce our earnings and eash
flows. There is no guarantee that a transition from IBORs and specifically LIBOR to an alternative will not result in financial
market disruptions, significant increases in benchmark rates, or borrowing costs to borrowers, any of which could have an adverse
effect on our business, financial condition, and results of operations. The New Credit Agreement and the Indenture, dated as of
December 10,2021 (the "Indenture"), which provides for the 2029 Notes, contain various affirmative and negative covenants
that will, subject to certain significant exceptions, restrict our ability to among other things, have liens on our property, incur
additional indebtedness, enter into sale and lease- back transactions, make loans, advances or other investments, make non-
ordinary course asset sales, declare or pay dividends or make other distributions with respect to equity interests, and / or merge or
consolidate with any other person or sell or convey certain of our assets to any one person, among other things. In addition, the
Term Loan A Facility and Revolving Credit Facility require that the Company maintain (i) a maximum total net leverage
ratio, as defined in the New Credit Agreement, initially of 5.25 to 1.00 as of the last day of each fiscal quarter, commencing with
the end of the first full fiscal quarter after the Closing Date, stepping down to 4.00 to 1.00 at December 31,2023 and thereafter
and (ii) an interest coverage ratio, as defined in the New-Credit Agreement, of at least 2.50 to 1.00. Our ability to comply with
these provisions may be affected by events beyond our control. Failure to comply with these covenants could result in an event
of default, which, if not cured or waived, could accelerate our repayment obligations under the New-Credit Agreement or the
Indenture, as applicable. If such indebtedness is accelerated, there can be no assurance that we will have sufficient financial
resources or that we will be able to arrange financing to repay our borrowings at such time. As a global company, we are subject
to taxation in the United States 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 as well as changes in our current or future global corporate structure
including our integration of existing and acquired legal entities. Changes in tax laws or tax rulings may have a significantly
adverse impact on our effective tax rate, including the newly-enacted "Inflation Reduction Act of 2022" and the two-pillar
solution for a global minimum level of taxation by the Organization for Economic Co-operation and Development ("OECD
"). We are also impacted by the establishment or release of valuation allowances against deferred tax assets, changes in generally
accepted accounting principles and continued eligibility for tax holiday benefits. The enactment of the Tax Cuts and Jobs Act
(the "Tax Act") in December 2017 significantly affected U.S.tax law by changing how the United States imposes tax on
multinational corporations. The U.S.Department of Treasury has broad authority under the Tax Act to issue regulations and
interpretive guidance. We have applied available guidance to estimate our tax obligations, but new guidance issued by the
U.S.Treasury Department may cause us to make adjustments to our tax estimates in future periods. In addition, we are subject to
regular examination of our income tax returns by the U.S.Internal Revenue Service and other tax authorities.This
includes challenges to our intercompany transfer pricing arrangements and charges and the appropriate level of
profitability for our entities. We regularly assess the likelihood of favorable or unfavorable outcomes resulting from these
examinations and Competent Authority processes 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 from 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. We may be exposed to business interruptions due
to extreme weather caused by climate change and deforestation, force majeure catastrophes, natural disasters,
including, but not limited to, droughts; earthquakes; flooding; heavy rains; landslides; rotating storms like
cyclones,hurricanes,tornados,and typhoons;tsunamis and other giant waves;wildfires and volcanic
eruptions), pandemic, terrorism, or acts of war that 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. A portion of our research and development
activities, manufacturing, and other critical business operations are located near major earthquake faults, for example in
Santa Clara, California, an area with a history of seismic events. Other business operations are located in regions which
could be effected by any future increases in sea levels or in the frequency or severity of heavy rains,rotating and other
storms,tsunamis and other giant waves,landslides and flooding including,but not limited to,China,Korea,Vietnam,and
the coastal regions of the United States including, but not limited to, California and Florida. Any such loss or detrimental
impact to any of our operations, logistics or facilities could disrupt our operations, delay production, shipments and
revenues and result in large expenses to repair or replace the facility. While we have obtained insurance to cover most
potential losses, after reviewing the costs and limitations associated with earthquake insurance, we have decided not to
procure such insurance. We believe that this decision is consistent with decisions reached by numerous other companies
located nearby. We cannot ensure you that our existing insurance coverage will be adequate against all other possible
losses. Current challenges in global shipping and other aspects of commercial transportation, such as congestion in ports, a
shortage in containers and a general lack of space on ships and trucks, have adversely impacted our operations. Because of this
ongoing situation, we face a risk of continued supply chain disruptions. Additionally, our revenues and collections also may be
adversely affected by transportation delays that could have a negative impact on the timing of payments that we receive under
our sales arrangements. If these issues continue beyond the short term, our overall supply chain and our revenues derived from
our sales flow could be adversely impacted. The microelectronics market is characterized by rapid..... to result in higher
operating costs. We are highly dependent upon the experience and continuing services of certain scientists, engineers,
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production, sales, and management personnel. Competition for the services of these personnel is intense. 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 failure to
<mark>execute on our succession planning may affect our ability to maintain our differentiated knowledge base.</mark> Large end- user
service providers and product companies comprise a significant portion of our customer base. These large customers generally
have greater purchasing power than smaller entities customers and, accordingly, often negotiate request and receive more
favorable terms from suppliers, including us. As we seek to expand our sales to existing <del>customers</del> and <del>acquire</del> new large
customers, we may be required to agree to terms and conditions that are more favorable to our these customers and that may
affect the timing of our ability to recognize revenue, increase our costs, and have an adverse effect on our business, results of
operations and financial condition, and results of operations. Furthermore, large customers have increased buying power and
ability to require negotiate onerous terms in into our contracts with them, including pricing, warranties, and indemnification
and production capability terms. If we are unable to satisfy the terms of these contracts, it could result in liabilities of a
material nature, including litigation, damages, additional costs, loss of market share, and loss of reputation. Additionally, the
terms these large customers require, such as most-favored customer or exclusivity provisions, may impact our ability to do
business with other customers and generate revenues from such customers. In many of the countries in which we operate,
government bodies are increasingly enacting legislation and regulations in response to potential impacts of climate change.
These laws and regulations may be mandatory. They have the potential to impact our operations directly or indirectly as a result
of required compliance by our customers or and / our - or suppliers supply chain. Inconsistency of regulations may also affect
the costs of compliance with such laws and regulations. Assessments of the potential impact of future climate change legislation,
regulation, and international treaties and accords are uncertain, given the wide scope of potential regulatory change in countries
in which we operate. We may incur increased capital expenditures resulting from required compliance with revised or new
legislation or regulations, added costs to purchase raw materials, lower profits from sales of our products, allowances or credits
under a "cap and trade" system, increased insurance premiums and deductibles as new actuarial tables are developed to reshape
coverage, changes in competitive position relative to industry peers, changes to profit or loss arising from increased or decreased
demand for goods produced by us, or changes in costs of goods sold. A small number of customers have consistently accounted
for a significant portion of our revenues, <del>although with none</del>- <mark>one individually represent greater customer contributing more</mark>
than 10 % of total revenues in fiscal 2023. Our success will depend on our continued ability to develop and manage
relationships with our major large customers and their continued need for our products. Although we are attempting to
expand our customer base, we expect that significant customer concentration will continue for the foreseeable future. We may
not be able to offset any decline in revenues from our existing major-large customers with revenues from new customers, and
our quarterly results may be volatile because we are dependent on large orders from these customers that may be reduced,
delayed, or cancelled. The markets in which we have historically sold our optical subsystems and components products are
dominated by a relatively small number of systems manufacturers, thereby limiting the number of our potential customers. Our
dependence on large orders from a relatively small number of large customers makes our relationship with each large customer
critically important to our business. We cannot ensure that we will be able to retain our major large customers, attract additional
large customers, or that our large customers will be successful in selling their products that incorporate our products. In
addition, governmental trade action or economic sanctions may limit or preclude our ability to do business with certain large
customers. We have in the past experienced delays and reductions in orders from some of our major large customers. In
addition, our large customers have in the past sought price concessions from us, and we expect that they will continue to do so
in the future. Cost and Expense expense reduction measures that we have implemented over the past several years, and
additional action we are taking to reduce costs, may adversely affect our ability to introduce new and improved products, which
may, in turn, adversely affect our relationships with some of our key-large customers. Further, some of our large customers may
in the future shift their purchases of products from us to our competitors or to joint ventures between these customers and our
competitors, or may in certain circumstances produce competitive products themselves. The loss of one or more of our major
large customers, any reduction or delay in sales to these customers, our inability to successfully develop relationships with
additional customers, or future price concessions that we may make could significantly harm our business. In May 2023, we
announced that our Board of Directors approved a restructuring plan (the "Restructuring Plan") which includes site
consolidations, facilities movements and closures, and the relocation and requalification of certain manufacturing
facilities. While the Restructuring Plan and other proactive cost reduction measures that we plan to take are intended to
realign our cost structure as part of a transformation to a simpler, more streamlined, resilient and sustainable business
model, we may encounter challenges in the execution of these efforts that could prevent us from recognizing the intended
benefits of such efforts. As a result of the Restructuring Plan, we expect to incur approximately $ 150 million to $ 200
million of pre- tax charges in the fiscal years 2023 to 2025 primarily as a result of the reduction in force and facility
consolidations related to the closure and relocation of sites. We also have incurred, and may continue to incur, additional
costs in the near term, including cash payments related to severance, employee benefits and employee transition costs, as
well as non- cash charges for share- based compensation expense. The Restructuring Plan may result in other unintended
consequences, including higher than anticipated costs in implementing planned workforce reductions, particularly in
highly regulated locations outside the United States; higher than anticipated lease termination and facility closure costs;
employee attrition beyond our intended reduction in force; and decreased employee morale among our remaining
employees; diversion of management attention; adverse effects to our reputation as an employer which could make it
more difficult for us to hire new employees in the future; loss of the institutional knowledge and expertise of departing
employees; failure to maintain adequate controls and procedures while executing, and subsequent to completing, the
Restructuring Plan; and potential failure or delays to meet operational and growth targets due to the loss of qualified
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employees. If we experience any of these adverse consequences, the Restructuring Plan and other cost reduction initiatives that we may undertake may not achieve or sustain the intended benefits. Our failure to achieve the expected results from the Restructuring Plan and other cost reduction initiatives for any reason also could lead to the implementation of additional restructuring- related activities in the future, which may exacerbate these risks or introduce new risks which could adversely affect our business, results of operations and financial condition. In May 2023, we announced that we are reviewing strategic alternatives for our silicon carbide business. The process of evaluating strategic alternatives and completing any transaction may be time-consuming and involve considerable costs and expenses, which could be higher than what we anticipate. Moreover, we may not be able to complete any strategic transaction on the anticipated terms or time frame or at all, and any strategic transactions may not generate some or all of the anticipated strategic, financial, operational or other benefits. Whether or not a transaction is ultimately completed. the review of strategic alternatives and the pendency of any transaction could adversely impact Coherent and our business (including our silicon carbide business), including through potential business disruption, diversion of management time and attention and reduced employee retention, and potential impacts on Coherent's relationships with its customers and other stakeholders. We manufacture some of the components that we incorporate into our subsystem products; in other cases, we provide components to contract manufacturers to produce finished or intermediary goods. For some of the components and finished or intermediary goods, we are the sole qualified manufacturer. Our manufacturing processes are highly complex, and quality issues are often difficult to forecast, detect, and correct. From time to time we have experienced problems achieving acceptable yields in our manufacturing facilities, resulting in delays in the availability of our products. In addition, if we experience problems with our manufacturing facilities, it would be costly and require a long period of time to move the manufacture of these components and finished good products to a different facility or contract manufacturer, which could result in interruptions in supply and would likely materially impact our results of operations and financial condition and results of operations. In addition, for a variety of reasons, including changes in circumstances at our contract manufacturers or our own business strategies, we may voluntarily, or be required to, transfer the manufacturing of certain products to other manufacturing sites. Changes in manufacturing processes are often required due to changes in product specifications, yield improvements, changing customer needs, and the introduction of new products. These changes may reduce manufacturing yields at our contract manufacturers and at our own manufacturing facilities, resulting in reduced margins on and or reduced availability of those products. Also, our ability to control the quality of products produced by contract manufacturers may be limited and quality issues may not be resolved in a timely manner, which could adversely impact our financial condition or results of operations. In addition, many of our products are sourced from suppliers based outside of the United States, primarily in Asia. Uncertainty with respect to tax and trade policies, tariffs, and government regulations affecting trade between the United States and other countries has recently increased. Major developments in tax policy or trade relations, such as the imposition of tariffs on imported products, could increase our product and product-related costs or require us to seek alternative suppliers, either of which could result in decreased sales or increased product and product- related costs. We base many of our operating decisions including, but not limited to, those regarding manufacturing capacity and staffing, and enter into purchase commitments, on the basis of anticipated revenue trends that are highly unpredictable. Some of our purchase commitments are not cancellable, and in some cases we are required to recognize a charge representing an amount of material or capital equipment purchased or ordered that exceeds our actual requirements. Should revenues in future periods fall substantially below our expectations, or should we fail to accurately forecast changes in demand mix, we could be required to record substantial charges for obsolete or excess inventories or noncancellable purchase commitments. Our markets are The photonics industry is characterized by extensive research and development, rapid technological change, frequent new product introductions, changes in customer requirements and evolving industry standards. Because this industry is subject to rapid change, it is difficult to predict its potential size or future growth rate. Our success in generating net-sales in this industry will depend on, among other things: • maintaining and enhancing our relationships with our customers; • the education of potential end-user customers about the benefits of lasers and laser systems; and • our ability to accurately predict and develop our products to meet industry standards. We cannot assure ensure you that our expenditures for research and development will result in the introduction launch of new products or, if such products are introduced, that those products will achieve sufficient market acceptance or to generate sales to offset the costs of development. Our failure to address rapid technological changes in our markets could adversely affect our business and results of operations. Under accounting principles generally accepted in the United States, we review our intangible assets for impairment when events or changes in circumstances indicate the carrying value may not be recoverable. Goodwill is required to be tested for impairment at least annually. Factors that may be considered in determining whether a change in circumstances indicating that the carrying value of our goodwill or other intangible assets may not be recoverable include declines in our stock price and market capitalization or future cash flows projections. A decline in our stock price, or any other adverse change in market conditions, particularly if such change has the effect of changing one of the critical assumptions or estimates we used to calculate the estimated fair value of our reporting units, could result in a change to the estimation of fair value that could result in an impairment charge. Any such material charges, whether related to goodwill or purchased intangible assets, may have a material negative impact on our financial and operating results. As a public company, we are subject to the reporting requirements of the Securities Exchange Act of 1934, as amended, the Sarbanes-Oxley Act of 2002, as amended ("the Sarbanes- Oxley Act"), and Nasdaq New York Stock Exchange ("NYSE") listing requirements. The Sarbanes- Oxley Act requires, among other things, that we maintain effective disclosure controls and procedures and internal control over financial reporting. In order to maintain and improve the effectiveness of our disclosure controls and procedures and internal control over financial reporting, we have expended, and anticipate that we will continue to expend, significant resources, including accounting- related costs and significant management oversight. Any failure to develop or maintain effective controls, or any difficulties encountered in their implementation or improvement, could delay the reporting of our

financial results or cause us to be subject to investigations, enforcement actions by regulatory agencies, stockholder lawsuits, or other adverse actions requiring us to incur defense costs or pay fines, settlements, or judgments. Any such failures or difficulties could also cause investors to lose confidence in our reported financial and other information, which would likely have a negative effect on the trading price of our common stock. We may also then become the target of activist investors. In addition, if we are unable to continue to meet these requirements, we may not be able to remain listed on the NYSE Nasdag Stock Market. The trading prices for our common stock on the Nasdaq Global Select Market Composite varied between a high of \$75.60. per share and a low of \$ 50-26. 14-29 per share in the fiscal year ended June 30, 2022-2023. Likewise, the trading prices of our Mandatory Convertible Preferred Stock varied between a high of \$ 308. 50 per share and a low of \$ 215. 02 per share in the fiscal year ended June 30, 2022. The market prices of our securities could fluctuate significantly for many reasons, including the following: • future announcements by or concerning us or our competitors; • the overall performance of equity markets; • the trading volume of our securities; • additions or changes to our board Board of directors Directors, management, or key personnel; • regulatory actions (including, but not limited to, developments in international trade policy) and enforcement actions bearing on manufacturing, development, marketing, or sales; • the commencement or outcome of litigation; • reports and recommendations of analysts and whether or not we meet the milestones, metrics, and other expectations set forth in such reports; • gaining or losing large customers; • the introduction of new products or services and market acceptance of such products or services; • fluctuations in demand for our products or downturns in the industries that we serve, particularly the continued build- out of the capacity for the manufacture of OLED and the increased use of the installed base of our products in such manufacturing; • the impact of any public health crisis on our business, financial condition, results of operations, or prospects or those of our customers and suppliers; • the acquisition or loss of significant manufacturers, distributors, or suppliers or an inability to obtain sufficient quantities of materials needed to provide our services; • the issuance of common stock or other securities (including shares of common stock issued upon conversion of any shares of Mandatory Convertible Preferred Stock or Series B Preferred Stock or upon conversion of our outstanding convertible notes-); • incurrence of indebtedness; • quarterly variations in operating results; • our ability to accurately forecast future performance; • business acquisitions or divestitures; • fluctuations in the economy, political events, or general market conditions; and • changes in our operating industry generally. In addition, stock markets have experienced extreme price and volume fluctuations in recent years, including as a result of the effects of the COVID-19 pandemie. Moreover, these fluctuations frequently have been unrelated to the operating performance or underlying fundamentals of the affected companies. These broad market fluctuations, including fluctuations within our industry peer group, may adversely affect the market price of our common stock. These fluctuations may be unrelated to our performance or out of our control, and could lead to securities class action litigation that could result in substantial expenses and diversion of management's attention and corporate resources, any or all of which could adversely affect our business, financial condition, and results of operations. We expect that the market price of our Mandatory Convertible Preferred Stock will be influenced by yield and interest rates in the capital markets, the time remaining to the mandatory conversion date applicable to the Mandatory Convertible Preferred Stock, our creditworthiness, and the occurrence of certain events affecting us that do not require an adjustment to the fixed conversion rates of the Mandatory Convertible Preferred Stock. Fluctuations in yield rates in particular may give rise to arbitrage opportunities based upon changes in the relative values of the Mandatory Convertible Preferred Stock and our common stock. Any such arbitrage could, in turn, affect the market prices of our common stock and the Mandatory Convertible Preferred Stock. The market price of our common stock could also be affected by possible sales of our common stock by investors who view the Mandatory Convertible Preferred Stock as a more attractive means of equity participation in us and by hedging or arbitrage trading activity that we expect to develop involving our common stock. This trading activity could, in turn, affect the market price of the Mandatory Convertible Preferred Stock. Our Articles of Incorporation and Bylaws contain provisions that could make us a less attractive target for a hostile takeover and could make more difficult or discourage a merger proposal, a tender offer, or a proxy contest. Such provisions include: • a requirement that shareholder- nominated director nominees be nominated in advance of the meeting at which directors are elected and that specific information be provided in connection with such nomination; • the ability of our board Board of directors 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 BCL Code contains provisions that may have the effect of delaying or preventing a change in our control or changes in our management. Many of these provisions are triggered if any person or group acquires, or discloses the intent to acquire, 20 % or more of a corporation's voting power, subject to certain exceptions. These provisions: • provide the other shareholders of the corporation with certain rights against the acquiring group or person; • prohibit the corporation from engaging in a broad range of business combinations with the acquiring group or person; • restrict the voting and other rights of the acquiring group or person; and • provide that certain profits realized by the acquiring group or person from the sale of our equity securities belong to and are recoverable by us. Regardless of the amount of a person's holdings, if a shareholder or shareholder group (including affiliated persons) would be a party to certain proposed transactions with us or would be treated differently from other shareholders of ours in certain proposed transactions, the BCL Code requires approval by a majority of votes entitled to be cast by all shareholders other than the interested shareholder or affiliate group, unless the transaction is approved by independent directors or other criteria are satisfied. Furthermore, under the BCL Code, a "short-form" merger of H-VI Coherent Corp. cannot be implemented without the consent of our board Board of directors Directors. In addition, as permitted by Pennsylvania law, an amendment to our Articles of Incorporation or other corporate action that is approved by shareholders may provide mandatory special treatment for specified groups of nonconsenting shareholders of the same class. For example, an amendment to our Articles of Incorporation or other corporate action may provide that shares of common stock held by designated shareholders of record must be cashed out at a price determined by the Company, subject to applicable dissenters' rights. Furthermore, the BCL Code provides that directors, in discharging their duties, may consider, to the extent

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they deem appropriate, the effects of any action upon shareholders, employees, suppliers, customers, and the communities in
which the corporation's offices are located. Directors are not required to consider the interests of shareholders to a greater
degree than other constituencies' interests. The BCL Code expressly provides that directors do not violate their fiduciary duties
solely by relying on "poison pills" or the anti-takeover provisions of the BCL Code. We do not currently have a "poison pill.
"All of these provisions may limit the price that investors may be willing to pay for shares of our capital stock. In addition,
eertain rights of the holders of the Mandatory Convertible Preferred Stock could make it more difficult or more expensive for a
third party to acquire us. For example, if any of certain fundamental changes were to occur on or prior to July 1, 2023, holders of
the Mandatory Convertible Preferred Stock may have the right to convert their Mandatory Convertible Preferred Stock, in whole
or in part, at an increased conversion rate and will also be entitled to receive a make-whole amount equal to the present value of
all remaining dividend payments on their Mandatory Convertible Preferred Stock, as described in the applicable Statement with
Respect to Shares governing the Mandatory Convertible Preferred Stock. Likewise, if any of certain fundamental changes were
to occur, we or the surviving entity would be required to make an offer to repurchase, at the option and election of the holders
thereof, for cash each share of Series B Preferred Stock then outstanding. These features of the Mandatory Convertible Preferred
Stock and Series B Preferred Stock could increase the cost of acquiring us or otherwise discourage a third party from acquiring
us or removing incumbent management. We have never declared nor paid dividends on our common stock and do not expect to
pay cash dividends on our common stock in the foreseeable future. We currently anticipate that we will retain future earnings to
support operations and to finance the development of our business. As a result, the success of an investment in our common
stock will depend entirely upon future appreciation in its value. There is no guarantee that our common stock will maintain its
value or appreciate in value. Our declaration and payment of dividends on our capital stock in the future will be determined by
our board Board of directors Directors (or an authorized committee thereof) in its sole discretion and will depend on our
financial condition, earnings, growth prospects, other uses of cash, funding requirements, applicable Pennsylvania law, and other
factors our <del>board <mark>Board of directors-Directors dee</del>ms relevant. The terms of the <del>New-</del>Credit Agreement contain a restriction on</del></mark>
our ability to pay cash dividends on our capital stock. If the terms of the New-Credit Agreement restrict our ability to pay cash
dividends on the Mandatory Convertible Preferred Stock, we will pay any dividends declared by our board of directors (or an
authorized committee thereof) on the Mandatory Convertible Preferred Stock in the form of shares of common stock. In
addition, credit-facilities, indentures, or other financing agreements that we enter into in the future also may contain provisions
that restrict or prohibit our ability to pay cash dividends on our capital stock. In addition, under Pennsylvania law, our board
Board of directors Directors may not pay dividends if after giving effect to the relevant dividend payment we (i) would not be
able to pay our debts as they become due in the usual course of our business or (ii) our total assets would not be greater than or
equal to the sum of our total liabilities plus the amount that would be needed if we were to be dissolved at the time as of which
the dividend is measured, in order to satisfy the preferential rights upon dissolution of shareholders whose preferential rights are
superior to those receiving the dividend. Even if we are permitted under our contractual obligations and Pennsylvania law to pay
eash dividends on the Mandatory Convertible Preferred Stock, we may not have sufficient eash to pay eash dividends on the
Mandatory Convertible Preferred Stock The market price of our common stock is likely to be influenced by the Mandatory
Convertible Preferred Stock and, to the extent that markets develop when applicable trading limitations no longer apply, our
Series B Preferred Stock. For example, the market price of our common stock could become more volatile and could depress
possible sales of our common stock to shareholders who view the Mandatory Convertible Preferred Stock or Series B Preferred
Stock as more attractive means of equity participation in us than owning shares of our common stock. Shares of our common
stock are equity interests that rank junior to all indebtedness and other non-equity claims on us with respect to assets available
to satisfy our claims, including in a liquidation of the Company. Additionally, holders of our common stock may be subject to
prior dividend and liquidation rights of any holders of our preferred stock or depositary shares representing such preferred stock
then outstanding. Our common stock ranks junior to our Mandatory Convertible Preferred Stock and Series B Preferred Stock
with respect to the payment of dividends and amounts payable in the event of our liquidation, dissolution, or winding- up of our
affairs. This means that, unless accumulated dividends have been paid on all the Mandatory Convertible Preferred Stock and
Series B Preferred Stock then outstanding through the most recently completed dividend period, no dividends may be declared
or paid on our common stock and we will not be permitted to repurchase any of our common stock, subject to limited
exceptions. Likewise, in the event of our voluntary or involuntary liquidation, dissolution, or winding- up of our affairs, no
distribution of our assets may be made to holders of our common stock until we have paid to holders of the Mandatory
Convertible Preferred Stock and Series B Preferred Stock then outstanding the applicable liquidation preferences. In the event of
a bankruptcy, liquidation, dissolution, or winding-up of our affairs, our assets will be available to pay obligations on the
Mandatory Convertible Preferred Stock and Series B Preferred Stock only after all of our consolidated liabilities have been paid.
In addition, the <del>Mandatory Convertible Preferred Stock and</del> Series B Preferred Stock <del>rank ranks</del> structurally junior to all
existing and future liabilities of our subsidiaries. In the event of a bankruptcy, liquidation, dissolution, or winding- up of our
affairs, there may not be sufficient assets remaining, after paying our and our subsidiaries' liabilities, to pay amounts due on any
or all of the Mandatory Convertible Preferred Stock and Series B Preferred Stock then outstanding. Our Articles of
Incorporation authorize our board Board of directors Directors to issue one or more additional series of preferred stock and set
the terms of the preferred stock without seeking any further approval from our shareholders. Any preferred stock that is issued
will rank ahead of our common stock in terms of dividends and liquidation rights. If we issue additional preferred stock, it may
adversely affect the market price of our common stock. Our board Board of directors Directors also has the power authority,
without shareholder approval, subject to applicable law, to set the terms of any such series of preferred stock that may be issued,
including voting rights, dividend rights, preferences over our common stock with respect to dividends, and other terms, or upon
our liquidation, dissolution, or winding- up of our affairs. If we issue additional preferred stock in the future that has a
preference over our common stock with respect to the payment of dividends or upon our liquidation, dissolution, or winding-up
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of our affairs, or if we issue additional preferred stock with voting rights that dilute the voting power of our common stock, the rights of holders of our capital stock or the market price of our capital stock could be adversely affected. The issuance of preferred stock or even the ability to issue preferred stock could also have the effect of delaying, deterring, or preventing a change of control or other corporate action. At any time on or after the ten-year anniversary of the applicable issuance date of the shares of our Series B Preferred Stock and subject to the procedures set forth in the terms of the Series B Preferred Stock, each holder of such shares will have the right to require us to redeem all of such holder's shares for cash at a price per share equal to the sum of the applicable stated value for such shares plus accrued or declared and unpaid dividends on such shares that had not previously been added to such stated value. This may have the effect of reducing funds available for working capital, capital expenditures, acquisitions and other general corporate purposes, thereby negatively affecting the interests of holders of our other capital stock, including our common stock and our Mandatory Convertible Preferred Stock. Our Series B Preferred Stock has voting rights, allowing holders to vote as one class with our common stock on an as- converted basis, subject to limited exceptions. As a result, the holders of Series B Preferred Stock have the ability to significantly influence the outcome of any matter submitted for the vote of the holders of our common stock. Holders of Series B Preferred Stock are entitled to act separately in their own respective interests with respect to their ownership interests in us and have the ability to substantially influence all matters that require approval by our shareholders, including the approval of significant corporate transactions. Additionally, we may not undertake certain actions without the prior written approval of the holders of a majority of the issued and outstanding shares of Series B Preferred Stock, voting separately from our common stock. Subject to certain exceptions, we must not: (1) alter or change the rights, preferences or privileges of our Series B Preferred Stock or amend, modify or supplement any provision of our organizational documents in a manner that adversely affects the rights, powers, preferences or privileges of our Series B Preferred Stock; (2) authorize or issue any senior stock (or securities convertible into senior stock), or amend or alter our articles of incorporation to increase the number of authorized or issued shares of our Series B Preferred Stock; (3) decrease the number of authorized shares of our Series B Preferred Stock (other than as permitted pursuant to a conversion, redemption or repurchase by us thereof); (4) issue any shares of our Series B Preferred Stock (other than pursuant to the amended and restated invested agreement, entered into on March 30, 2021, by and between Bain Capital Private Equity, LP (" BCPE") and us (the "Investment Agreement"); and (5) effect any voluntary deregistration or delisting with Nasdaq the NYSE of our common stock. Furthermore, we may not, unless holders of Series B Preferred Stock otherwise consent in writing (or if such action is taken with respect to a Permitted Issuance (as defined in the Investment Agreement)), so long as BCPE owns at least 5 % of the number of shares of Series B Preferred Stock that it held immediately following the issuance and sale of the Series B- 2 Preferred Stock upon completion of our acquisition of Coherent, **Inc.** (i) authorize or issue any parity stock and (ii) pay any cash dividend on our common stock (other than ordinary dividends). We also may not, unless BCPE otherwise consents in writing (or if such action is taken with respect to a Permitted Issuance (as defined in the Investment Agreement)), so long as it owns at least 25 % of the number of shares of Series B Preferred Stock that it held immediately following the issuance and sale of the Series B- 2 Preferred Stock upon completion of our acquisition of Coherent, **Inc.**, redeem, repurchase or otherwise acquire (or make or declare any dividend or distribution in respect of) any junior stock (subject to certain exceptions, including, among other things, ordinary dividends, non- cash dividends or other distributions paid pro rata to all holders of our common stock and, if applicable, holders of Series B Preferred Stock, repurchases of junior stock of up to \$ 100 million on an aggregate annual basis and dividends on junior stock in kind or in the form of other junior securities or securities convertible into or exchange for such junior securities). Moreover, under the terms of the Investment Agreement, following the closing of the initial investment and for so long as BCPE beneficially owns shares of Series B Preferred Stock (or shares of our common stock issued upon the conversion thereof) that represent, in the aggregate and on an as- converted basis, at least 25 % of the number of shares of Series B Preferred Stock that it held immediately following the completion of the issuance and sale of the Series B-2 Preferred Stock upon completion of our acquisition of Coherent, BCPE will have the right to nominate one designee and to designate one observer to the our board Board of directors Directors. Circumstances may occur in which the interests of BCPE could conflict with the interests of holders of other outstanding capital stock, including our common stock and our Mandatory Convertible Preferred Stock. Research analysts and freelance bloggers publish their own quarterly projections regarding our operating results. These projections may vary widely from one another and may not accurately predict the results we actually achieve. Our share price may decline if we fail to meet securities research analysts' projections. Similarly, if one or more of the analysts who cover us change their recommendations regarding our common stock or publish inaccurate or unfavorable research about our business, our share price could decline. If one or more of these analysts cease coverage of us or fail to publish reports on us regularly, our share price or trading volume could decline. Holders of Mandatory Convertible Preferred Stock who employ, or seek to employ, a convertible arbitrage strategy with respect to the Mandatory Convertible Preferred Stock may be adversely impacted by regulatory developments that may limit or restrict such a strategy. The SEC and other regulatory and selfregulatory authorities have implemented various rules and may adopt additional rules in the future that restrict and otherwise regulate short selling, over- the- counter swaps, and security- based swaps, which restrictions and regulations may adversely affect the ability of investors in, or potential purchasers of, the Mandatory Convertible Preferred Stock to conduct a convertible arbitrage strategy with respect to the Mandatory Convertible Preferred Stock. This could, in turn, adversely affect the trading price and liquidity of the Mandatory Convertible Preferred Stock. Holders of Mandatory Convertible Preferred Stock have no voting rights with respect to the Mandatory Convertible Preferred Stock, except with respect to certain amendments to the terms of the Mandatory Convertible Preferred Stock, in the ease of certain dividend arrearages, in certain other limited circumstances, and except as specifically required by applicable Pennsylvania law or by our amended and restated Articles of Incorporation. Holders of Mandatory Convertible Preferred Stock have no right to vote for any members of our board of directors, except in the ease of certain dividend arrearages. If dividends on any Mandatory Convertible Preferred Stock have not been declared and paid for the equivalent of six or more dividend periods, whether or not for consecutive dividend periods, the holders of such

Mandatory Convertible Preferred Stock, voting together as a single class with holders of all other series of preferred stock ranking equally with the Mandatory Convertible Preferred Stock and having similar voting rights, will be entitled at our next special or annual meeting of shareholders to vote for the election of a total of two additional members of our board of directors, subject to certain limitations. A significant portion of our operations is conducted through our subsidiaries, and our ability to generate cash to meet our debt service obligations or to make future dividend payments with respect to the Mandatory Convertible Preferred Stock and, to the extent we elect to make such payments in cash, with respect to our Series B Preferred Stock is highly dependent on the earnings and the receipt of funds from our subsidiaries. Our subsidiaries are separate legal entities that have no obligation to make any funds available to us, whether by dividends, loans, or other payments. 43