

Risk Factors Comparison 2024-08-16 to 2023-08-18 Form: 10-K

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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 are subject to complex and rapidly changing import and export regulations **of the countries in which we operate and / or sell** 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 strategic materials, components, and products from limited sources of supply. • We participate in the 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 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. • **Cybersecurity attacks and incidents and other vulnerabilities could subject us to costly damages, claims and expenses, harm to our reputation or competitive position, or disrupt our operations and business.** • ~~Data breach~~ **breaches and other events and incidents that impact the confidentiality, availability, and breakdowns integration** of information and ~~assets~~ **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 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 of products and possible shortages of critical raw materials, parts, equipment and other resources may adversely affect 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 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 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. • ~~We have announced that we are reviewing strategic alternatives for~~ **subject to a number of risks associated with the equity investments contemplated by the**

respective investment agreements entered into with Denso Corporation and Mitsubishi Electric Corporation and certain related supply arrangements, and these risks could adversely impact our silicon carbide operations, financial condition and 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 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 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. • Our common stock is subordinate to our existing and future indebtedness ~~;~~, the Series B Preferred Stock ~~;~~, and any other preferred stock we may issue in the future. Our Series B Preferred Stock ranks junior to all of our and our subsidiaries’ consolidated liabilities. • Our Board of 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. • 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

Coherent Corp. (“ Coherent,” the “ Company,” “ we,” “ us,” or “ our ”), a global leader in 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 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,” the “ Company,” “ we,” “ us,” or “ our ” in this Annual Report on Form 10- K, unless the context requires otherwise, refers to Coherent Corp. and its wholly owned subsidiaries. The following defined terms are used in this Annual Report on Form 10- K: artificial intelligence (AI); bismuth telluride (Bi₂Te₃); cadmium telluride (CdTe); carbon dioxide (CO₂); chemical vapor deposition (CVD) of materials including diamond; continuous wave (CW); datacenter interconnect (DCI); dense wavelength division multiplexing (DWDM); diversity, equity, and inclusion (DEI); edge-emitting lasers (EELs); **environmental, social, and governance (ESG)**; 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 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); machine learning (ML); metal- oxide- semiconductor field- effect transistor (MOSFET); millimeters (mm); nanometers (nm); near- infrared (NIR); 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); silicon carbide (SiC); terabit per second (Tbps); three- dimensional (3D); 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, **and** optical and laser **systems and** subsystems **and systems** for use in the industrial, communications, electronics, and instrumentation 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 market verticals, including (i) precision manufacturing ~~;~~ (ii) **aerospace & defense**, semiconductor capital equipment ~~;~~ (iii) display capital equipment ~~;~~ **telecommunication (iv- telecom)** aerospace & defense; (v) ~~telecommunication networks~~ ~~;~~ (vi) data communication **(datacom)** networks ~~;~~ (vii) consumer electronics ~~;~~ (viii) automotive **wireless** ~~;~~ (ix) life sciences ~~;~~ and (x) scientific **instruments research**. 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 revenues**, earnings, and cash flows from **externally government- funded research and development R & D** 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 lasers ~~;~~ **and** manufacturers of equipment and devices for **our end** the industrial, communications, electronics, and instrumentation markets ~~;~~ U. S. government prime contractors; and

various U. S. government agencies. Through R & D investments and our strategic acquisitions, we have expanded our portfolio of materials and product platforms. We have a strong core competency in bulk and epitaxial crystal growth that enable differentiated products. ~~The~~ 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 optics are shaped by precision surfacing techniques ~~and 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 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 also 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 **precision** sensing in consumer electronics. We are a major supplier of silicon carbide substrates for the power electronics ~~market and for the wireless mobile market~~ **markets**. We continue to improve our operational capabilities, develop next-generation products, and invest in new technology platforms to drive growth in the short and the long term. With our strategic focus on fast- growing and sustainable markets, we pursue our mission of enabling the world to be safer, healthier, closer, and more efficient, and strive to attain 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, closed on July 1, 2022. **Coherent, Inc., as used in this Form 10- K generally means the subsidiaries and businesses of Coherent, Inc., as of the time of its acquisition by Coherent Corp. (formerly named II- VI Incorporated).** For the full fiscal year 2023, ~~Legacy Coherent is, Inc., was~~ 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, 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, 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 Networking**, which previously was referred to as our **Compound Semiconductors** **Photonic Solutions** segment; (ii) **Networking Materials**, which previously was referred to as our **Photonic Solutions** **Compound Semiconductors** 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~~ **2024**, 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. Backlog We define our backlog as bookings that have not been converted to revenues by the end of the reporting period. As of June 30, ~~2023~~ **2024**, our backlog was approximately \$ 2. ~~7~~ **6** billion, compared with approximately \$ 2. ~~3~~ **7** billion as of June 30, ~~2022~~ **2023**. Global Operations Coherent is headquartered in Saxonburg, Pennsylvania, USA, with R & D, manufacturing, and sales facilities worldwide. Our U. S. production and R & 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 R & 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, Italy, Japan, the Netherlands, South Korea, Spain, Switzerland, Taiwan, and the United Kingdom. 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~~ ~~(,~~ ~~which we refer to by the acronym~~ **CARE** ~~).~~ Our ~~These~~ 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 the company~~ **Company** in an ethical, scalable, and sustainable manner. • **Our People** : Our workplace is defined by our people. It enables ~~them everyone~~ **to show up come to work authentically** as their “best ~~self selves.~~” **to work every day.** This includes ~~creating~~ **supporting** 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 ~~and foster open communication~~ through focus groups, personal interviews, ~~our an~~ open- door policy, and engagement surveys, among other methods. This rich feedback allows us to reflect and adjust our ~~internal employee- focused~~ **internal** initiatives across the globe to create a culture that recognizes ~~their employees’~~ 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, ~~2023~~ **2024**, the Company employed approximately ~~27~~ **26**, 000 employees worldwide. Number of employees Percent of total Manufacturing 21, ~~81882~~ **64583** % Research and development 2, ~~4269~~ **2689** % Sales, general and administrative 2, ~~3789~~ **2448** % Total: 26, ~~622100~~ **157100** % We believe that our efforts in managing our workforce have been effective, as evidenced by a 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.

- 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. We customize our policies to the local requirements and circumstances of each plant.
- 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 talent. Our Leadership Academy offers global leadership development programs for our people leaders to build and enhance their leadership capabilities. Tuition reimbursement and funding for growth and development is also built into the annual budget to ensure that Coherent has the skilled workforce we need. Our global internship programs also welcome a new talent pipeline. In fiscal 2023, we pledged \$ 1.3 million to fund STEM educational and research programs in 2023.
- Total Rewards. Our “One Coherent” approach Total Rewards offerings are designed to:
 - Provide a market-competitive total rewards package that attracts, motivates, rewards, and retains top high-quality talent
 - Align total rewards of offerings with our competitors with which we compete for talent
 - Increase transparency of rewards programs, including sharing company and/or business segment financial metrics, and measurement of achievements in relation to challenging objectives
 - Balance fixed costs (benefits and base pay) and variable costs (bonus and equity)
 - Provide, with a substantial portion of total direct compensation tied to performance, pay-for-performance base, linked to bonus, and equity reflect both company and individual performance
 - Ensure strong governance practices, and align with the interests of our shareholdersEligible. Globally, all non-sales employees may participate in the Employee Stock Purchase Plan (ESPP), providing the opportunity to share in the potential growth of our company stock and allowing employees to purchase company shares at a discount 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, competitive time off our programs, and employee globally assistance programs.
- Diversity and Inclusion. Coherent supports fundamental respects and upholds the universal values of human rights—values inherent, which are fundamental to every individual all human beings. We expect hold an expectation for all leaders and employees to engage treat each other with dignity one another in a manner that is dignified, fairness fair, and respect respectful. We are consciously expanding the As we continue on our diversity of our workforce including underrepresented groups in leadership and technical positions, equity creating growth and development opportunities for our employees, embracing different perspectives, and fostering an and inclusive inclusion journey work environment. Recognizing the opportunity to increase gender representation at all levels of the organization, the following initiatives took place we piloted a Women in Leadership Program in fiscal year 2023-2024. This program is a significant investment in support the development and advancement of our women at Coherent and is designed to further career growth for women through targeted skill development, exposure to and coaching by senior leaders, and opportunities to network with peers across the organization. The Global Advisory Council completed DEI strategy:
 - Fostering Inclusion and Belonging: Following the deployment of our global DEI program’s strategy and objectives - Communication, over 13,500 employees have completed our Foundations of DEI training globally. This course was intended to set the foundation of awareness and understanding on the foundational concepts of DEI in our workplace. Our plan is to continue to deploy additional learning opportunities on DEI topics that help us foster an inclusive environment, bring awareness to unconscious bias, and ensure we are employing inclusive hiring practices.
 - Elevating Equity and Increasing Representation: Building on our success, we offered our global Women in Leadership Program again this strategy year, with active participation from senior leadership, to bolster female representation in leadership roles. This program offers a comprehensive suite of development opportunities, including specialized skill enhancement, coaching from senior leaders, and networking opportunities across the organization has already taken place, all aimed at helping support and propel the careers of women within our organization.
 - Embrace Diverse Perspectives: We continue to identify ways to highlight different perspectives through education. In fiscal year 2024, we offered a culture awareness course to employees who work on global teams to learn more about the different ways cultures communicate, collaborate, negotiate, and address disagreements. We also continue to offer diversity awareness topics throughout the year to educate employees on different dimensions of diversity present in our workforce.
 - Expand Our Impact: Understanding the significant impact we can make, Coherent continues to support initiatives targeted to increase diversity, equity, and inclusion as well as education 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 STEM, entrepreneurship, innovation, and advanced technology through our partnerships workplace. Our next step is to implement regionally relevant DEI goals in support of the global strategy for each of our global locations with the assistance of Regional Councils. Our organization also continues to actively partner with CEO Action for Diversity & Inclusion to advance DEI diversity and inclusion in the workplace. In fiscal year 2023-2024, Chair and CEO Chuck Mattera and our Chief HR-Strategy Officer and President of our Materials Segment, Giovanni Barbarossa, and Chief Marketing Officer, Sanjai Parthasarathi, 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 range of professional development activities focused on accelerating the development of diverse senior leaders through mentoring circles. ~~Additional Coherent executive leaders have volunteered to serve as mentors for future cohorts of this program as well as for the Optica Women Scholars Program.~~ Globally, approximately ~~44~~ **45** % of the workforce is female, with ~~11, 838~~ **890** females, ~~14, 893~~ **166** males and ~~224~~ **101** undisclosed as of June 30, ~~2023~~ **2024**. In Coherent's Senior ~~Global~~ Leadership Team (" ~~SLT~~ **GLT** "), which consists of directors and above, there are ~~65 females~~ and ~~483~~ **487** males, ~~and 1 undisclosed~~. The ~~SLT~~ **GLT** meets quarterly to discuss strategy, business trends, company operations, financials, and people programs. Our global footprint is diverse, with approximately ~~17~~ **18**, ~~900~~ **078** employees in the Asia- Pacific region, ~~3, 900~~ **690** in Europe, and ~~5~~ **4**, ~~200~~ **389** 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, 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 our customers. 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~~ ~~Our~~ lasers are displacing conventional ~~technology~~ **technologies** 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 that~~ are application - specific. **Manufacturing Developing** products for use across the electromagnetic spectrum requires the ~~capability~~ ~~---~~ **ability** to repeatedly manufacture ~~products~~ ~~components~~ with high yields to atomic tolerances. We ~~continuously~~ **continually** update our comprehensive quality management systems that feature manufacturing ~~quality~~ best practices. We are 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, and our program is now in its fourth year.~~ We continue to increase our use of renewable energy to power our operations and lower our greenhouse gas footprint. As of April ~~2023~~ **2024**, ~~the Company is now obtaining approximately 70~~ ~~we have contracts in place to cover over 50-% of our total its global electricity needs requirements globally from renewable energy sources. That includes~~ ~~In total, this represents over 500 million kWh of renewable energy per year, thereby avoiding more than 50~~ ~~250 sites now procuring 100 % renewable electricity,~~ ~~000 metric tons of CO2 emissions annually.~~ We have on- site solar systems at several facilities that further contribute to our renewable energy efforts. We participate in Apple's Supplier Clean Energy Program, and all of our Apple production is powered by 100 % renewable electricity sources. Our team also works to minimize energy usage, water usage, other raw materials usage, and waste generation. ~~We have been recognized for excellence in some of~~ ~~Coherent has set as a top priority to reduce its carbon footprint across its global operations. In December 2023, these~~ ~~the programs~~ ~~Company announced a commitment to achieve net- zero Scope 1 and Scope 2 emissions~~ by ~~fiscal~~ external organizations. For example, our Dallas, Texas, facility has received a local award for its wastewater treatment program for three consecutive ~~years~~ ~~year~~ **2040**. ~~Continuing to increase the use of renewable electricity is and~~ ~~an~~ ~~19 years in total~~ ~~important lever to achieve that commitment~~. Additional information ~~on the Company's sustainability performance~~ can be found on the Environmental, Social, and Governance (ESG) section of our website at www.coherent.com. The website address is intended to be an inactive textual reference only. None of the information on, or accessible through, Coherent's website is part of this Annual Report on Form 10- K, nor is it incorporated herein by reference. 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~~ **subcomponents** required in the manufacturing process are generally available from several sources. However, in the Lasers segment, we currently purchase several key components and materials ~~used in the~~ ~~manufacture of our products~~, 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 COVID- 19, we experienced some production delays due to shortages of raw materials, and while we are 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 develop strategic second sources as part of our overall business continuity planning, and occasionally experience problems associated with 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 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 had been divided into two reporting reports~~ segments for the purpose of making operational decisions and assessing financial performance: Photonic Solutions and Compound Semiconductors. With the acquisition of Coherent, Inc., on July 1, 2022, we added a third reporting

segment, “Lasers,” which comprises nearly all of the business of Legacy Coherent. In addition, we renamed our existing two reporting segments, from Photonics Solutions to Networking and from Compound Semiconductors to Materials. Beginning with fiscal year 2023, the Company is **its** divided into **results in** three reporting segments: (i) **Materials Networking**, (ii) **Networking Materials**, and (iii) Lasers. We have 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 segment leverages Coherent’s compound semiconductor technology platforms and deep knowledge of end- user applications for **our its** key end markets to deliver differentiated components and subsystems. The Materials segment is a market leader in engineered materials and optoelectronic devices, such as those based on ZnSe, ZnS, GaAs, InP, 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. 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. Each of these business units develops and markets products as described below.

Networking Business Unit
Products Telecommunications • Products and solutions that enable high- bit- rate interconnects for communications and cloud service providers, including in terrestrial and undersea fiber-optic transmission
Datacom Transceivers • Pluggable transceivers for Ethernet and Fibre Channel applications in cloud, hyperscale, and enterprise datacenter applications, including AI / ML
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 **equipment**
Materials Business Unit
Products Engineered Materials & Laser Optics • Laser optics and accessories for CO2 lasers • 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 • 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 • Advanced ceramic and metal- matrix composite products
Laser Components, Devices & Subsystems • **Systems** • High- power semiconductor lasers and laser bars • Laser heads and modules, Q- switched laser modules, high- power uncooled pump laser modules, laser systems for superhard materials processing • Laser processing heads and beam delivery systems for laser materials processing with industrial lasers • High- power fiber lasers for materials processing • EELs, VCSELs, and detectors • High- power pumps for amplifiers • Precision optical assemblies, infrared optics, thin- film coatings, and optical materials • Optical solutions for critical and complex design, engineering, and production challenges in aerospace & defense
New defense Wide Ventures & Wide- Bandgap Electronics Technologies • SiC and semiconductor materials for high- frequency and high- power electronic devices
Optoelectronic Devices & Modules • VCSELs for sensing • EELs and detectors • Integrated circuits for transceivers
Lasers Business Unit
Products Excimer Lasers • High- pulse- energy UV gas and solid- state lasers from 193 nm to 355 nm • Advanced UV optical systems, line beams, and mask- based imaging systems
Solid- State Lasers • North America • Ultrafast lasers from UV to IR wavelengths • High- pulse- energy UV nanosecond lasers • Low- power continuous- wave lasers and systems • Miniature low- power continuous- wave lasers and systems • High- power ultrafast amplifiers • Continuous- wave UV gas lasers
Solid- State Lasers • Europe • Ultrafast lasers from UV to IR wavelengths • High- pulse- energy UV nanosecond lasers • Miniature low- power continuous- wave lasers **and systems**
Laser from UV to IR wavelengths
Laser 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 user
CO2 Lasers • kW **Kilowatt-** class continuous- wave gas IR lasers • 50 W to 1 kW continuous- wave and pulse gas IR lasers
Aerospace & Defense • Specialty polishing and coating of optics, optical systems, and assemblies requiring high complexity and precision at dimensions of up to 2 meters • Specialty lasers and, laser systems, • Specialty crystals • Specialty, and diode lasers
Markets Our market- focused businesses are currently organized by technologies and products. Our businesses historically addressed the following primary markets: optical and wireless communications, industrial, aerospace & defense, semiconductor capital equipment, life sciences, consumer electronics, and automotive. In connection with the acquisition of Coherent, effective July 1, 2022, the Company reconfigured its primary markets and is reporting **report** based on the following markets effective July 1, 2022: industrial, communications, electronics, and instrumentation. Industrial Market Group • Precision Manufacturing Market Vertical. Our **Precision Manufacturing vertical encompasses a broad range of applications across very diverse markets. With complete verticality, from materials to turnkey laser solutions, we intersect with any industrial laser process within the application areas of automotive manufacturing, medical device manufacturing, machine tools, consumer goods, and industrial electrical and electronics. Coherent** laser optics and solutions for the industrial market remain well- positioned : **our portfolio enables a wide variety of applications including EV battery welding, fine processing of medical devices, additive manufacturing, high- temperature superconducting wires and tapes, and even bleaching of jeans**. 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 **large** installed base of CO2 lasers. We 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 **and along with precision machining such as marking of both metals and microdrilling plastics**. We supply a broad range of materials, **and** 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 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 serves all of these -- **the mentioned** growing laser markets. • Aerospace & Defense Market Vertical. Coherent's aerospace **Aerospace** & defense **Defense** solutions enable mission-critical capabilities for applications in **HELs high-energy lasers**; 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 **on** 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 high-energy laser** systems and space-based laser communications applications. With the addition of **nano-machined nanomachined** 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 **Aerospace** & defense **Defense** industry. Our advanced missile warning, electro-optical targeting, and imaging systems are deployed on virtually 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 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 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. **The Semiconductor Capital Equipment vertical breaks out into what is called front-end-of-line (FEOL) and back-end-of-line (BEOL); Coherent is well positioned to capitalize on the growth in both FEOL and BEOL products.** 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 **large-area polycrystalline diamond windows enable CO2 laser systems for EUV lithography.** 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. **Coherent lasers are widely used in both front-end and back-end applications. Our front-end laser products encompass solid-state lasers and excimer lasers designed for semiconductor inspection tasks along with CO2 lasers tailored for wafer annealing, supporting the most advanced processing nodes. We also offer a suite of lasers for a variety of advanced packaging (back-end) applications, ranging from cutting, PCB and substrate drilling, and optical debonding to numerous laser marking tasks.** Beyond lasers, we have **deep-decades of experience and** 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 **Capital Equipment** Market Vertical. We have achieved breakthrough laser innovations essential to manufacture displays for phones, tablets, computers, and televisions. Our **excimer** 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 **-and maintaining --- maintain it superior yield** along the process chain from backplane to individual display. **The majority of OLED phones have flexible OLED displays; thus, a laser lift-off process is also required. These large panels then need to be cut into smaller panels before being cut into typical smartphone shapes, which is done by our CO2 lasers. State-of-the-art mobile phones strive to guarantee a larger active area; accordingly, cuts must be precise and damage-free. UV ultrashort-pulsed lasers are therefore the preferred choice, and here again we offer an optimized portfolio of pico- and femtosecond laser sources. Beyond OLED, we are offering UV and DUV laser solutions for a broad range of applications to manufacture next-generation microLED displays. For display manufacturing, we offer a broad portfolio of laser sources and optical systems that will meet the requirements of display customers now, next, and beyond.**

Communications Market Group • Telecom Market Vertical. Coherent's optical communications 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; datacenter virtualization; and, ~~more recently~~, the 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, **enterprises**, and telecom service providers. We design products that meet the increasing demands for network bandwidth and data storage. Our **Telecom** 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. 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 800 Gbps, **and** 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--~~ **long** 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. • 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--~~ **transceiver samples** will ~~ship in the next few~~ **be shipped later this calendar year-- year**. In five years, the market opportunity for 800G and 1. 6T datacom transceivers is expected to be greater than all other types of 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 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, **but** we also design and manufacture many of the components ~~,~~ including lasers, detectors, **ICs**, 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 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-telecom Access-access**) are between 2 **km** and 10 km. Each of these distances and applications are best served by different laser technologies. For link distances less than 100 m, including Level 0 interconnects and a subset of Level 1 interconnects, VCSELs are used. These are based on our GaAs technology platform. VCSELs are generally the lowest- cost, lowest- power ~~;~~ consumption solution, and are the lasers of choice for **connections of** less than 100 m ~~connections--~~. Coherent has multiple 6 ~~2--~~ **inch** 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 ~~;~~ **two of them are moving to 6- inch wafer capability**. For Level 1 link distances greater than 100 m, **transceivers based on** 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, and we~~ introduced our 200G / lane 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 **GaAs** VCSELs ~~,~~ **and** VCSEL arrays, **InP edge-emitting lasers** and **optical filters**

photo diodes, as well as specialty glass wafers for the consumer electronics market. Our VCSEL products leverage our world-class 6-inch GaAs platform, combining our epitaxial wafer growth and 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 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 **applications such as**, for example, face recognition. Therefore, 3D sensing applications created the need to scale up manufacturing to 6-inch wafer processing. Today, Coherent 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 arrays** designed for 3D sensing. **We are also one of the very few companies that have shipped InP diode lasers and photodiodes in high volume for consumer electronics applications; these are also manufactured in-house**. An increasing number of consumer devices are coming on the market with embedded VCSELs, including multiple smartphones and tablets, **AR / VR headsets**, smart watches, and household robots. In addition to VCSELs, our products for the consumer electronics market include wafer-scale optics, diffraction gratings, thermoelectric coolers, **driver ICs**, and substrates for sensing and AR / VR applications.

- Automotive Market 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, **distance warning**, and adaptive cruise control. Coherent'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 **wavelengths and** peak powers for direct illumination and imaging **for in** 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 about 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 recognition. Automotive manufacturers continue to differentiate their 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. **Coherent is also a world leader in innovative engineered materials and subsystems for thermal management, offering a broad portfolio that includes reaction-bonded Si / SiC materials, Al / SiC metal matrix composites, CVD diamond, single-crystal SiC, and thermoelectric coolers. With such extensive and diverse capabilities, we are uniquely positioned to deliver thermal management solutions that ideally match the performance and cost requirements of numerous applications, including: transportation, semiconductor manufacturing, information technology, life sciences, and consumer electronics.**
- Wireless Market Vertical. Mobile traffic is increasing as a result of the proliferation of smartphones, tablet computers, and other mobile devices. In the mobile wireless market, we are a global leader in the strategic supply chain for materials and devices **utilized-used** in the latest 4G **and**, 5G, **and 6G** 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, **and the industry's first 200** 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-using** 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 continue to advance the state of the art in SiC substrates, with a strong technology portfolio of **over** 30 active patents using highly differentiated and proprietary manufacturing platforms and technologies including crystal growth, substrate fabrication, and polishing. Our **demonstration-introduction** 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 platform, which are within the core competencies of Coherent, are key materials also for future 6G high-efficiency power amplifiers and low-noise amplifiers, enabling the best power performance in their respective frequency ranges. Instrumentation Market Group
- Life Sciences Market Vertical. Within the life sciences end market, we focus on **analytical** instrumentation that

integrates light- and / or thermal- management solutions. We segment this market into three application areas (biotechnology, **analytical, and medical laser, and scientific**) and deliver targeted and unique product portfolios for each segment. We vertically integrate from the component **material level (with various crystals for medical laser applications, or ZnS materials for NIR and IR spectroscopy)** to **more-high- precision components, complex subassemblies, and even full systems-subsystems**.

Applications within the biotechnology segment include **research and diagnostic tools such as** flow cytometry, genome sequencing, PCR, **molecular diagnostics, imaging, and spectroscopy-sequencing**, to name a few. Our broad product portfolio delivers solutions covering illumination, light management, and thermal **control-management, sample loading, and detection**. Visible- wavelength lasers and multicolored laser **and LED** 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 **and detection**. 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. **Finally, vertical integration into higher- level optomechanical- electrical subassemblies drives further value and decreased time to market for our customers. Analytical instrumentation includes spectroscopy- based applications such as monitoring of air and water, food and beverage products, agriculture, and pharmaceutical quality control, as environmental and safety concerns become more prevalent. These instrumentation platforms need to be rugged enough to be deployed in the field, and often must be transportable as well. Coherent's solutions are the building blocks – lasers and LED solutions for illumination, optics for light management, sample loading, thermal control, and integrated detection solutions. We continue to leverage our materials and components to offer subassembly- level solutions at all wavelengths, from UV to NIR and IR. Medical applications comprise instrumentation that is used in the direct treatment of patients and includes medical lasers, imaging, point- of- care wearables, and thermal- based treatment solutions.** 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-demanding** extreme precision and often **requiring** complex designs **and typically that can reaching--- reach** into the NIR and IR wavelengths. Applications are varied, from laser- based treatments **(ophthalmic, dental, aesthetic / dermatological, and surgeries-surgical)** to medical imaging and **even point -of -care diagnostics**. Coherent's semiconductor laser bars and stacks are used in applications such as hair and wrinkle removal, **and femtosecond lasers combined with excimer lasers are used for common procedures like LASIK**. Crystals and laser cavities, along with custom- designed lens assemblies, are used for ophthalmic, dental, and dermatological surgeries. **CO2 lasers are specifically used in hard- and soft- tissue dental procedures**. 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. **We are uniquely positioned to leverage an expansive portfolio, decades of engineering expertise, global manufacturing, and vertical integration to meet performance, quality, and cost- reduction requirements. Coherent is a system- level partner from proof of concept to design and volume manufacturing, actively contributing to the global effort to address healthcare, environmental, and safety solutions.**

Scientific Instrumentation Research Market Vertical . Scientific Our products include CW lasers for microscopy, advanced ultrafast- pulsed laser sources, and high- energy pulsed excimer gas lasers. These systems are sold to universities and research institutions across the globe, fueling ideas for the next generation of materials, processes, medical diagnostics, and treatments that address some of the greatest challenges for humanity today. Our window to advanced research also ensures that we stay close to the latest emerging technologies and materials (for example, neuroscience advancements, optogenetic studies, and fusion research), steering our product roadmaps for the next generation of advanced manufacturing and instrumentation **rugged enough to be deployed in the field is increasingly essential for testing and monitoring of air, 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 continue to leverage 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.**

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 centralized 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, **2023-2024**, we employed approximately **778-624** individuals in sales, marketing, and support. We do business with a number of customers in the aerospace & 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 **2023-2024**. The representative groups of customers that we are able to disclose * are as follows: Networking Business Unit: Our Customers Are: Representative Customers *: Telecommunications Worldwide providers of telecommunications and CATV network systems and subsystems; telecommunications service providers • Ciena Corporation • Cisco Systems, Inc. • Fujitsu Network Communications • NEC Corporation • Nokia Corporation • Windstream Holdings, Inc. Datacom Transceivers Cloud service providers, enterprises with internal datacom networks, datacom OEMs, telecom OEMs • Alibaba Group • Cisco Systems, Inc. • 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 • Corning Incorporated • Cytek Biosciences, Inc. • Han' s Laser Technology Industry Group Co. Ltd. • 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. MaterialsBusiness Unit: Our Customers Are: Representative Customers *: Engineered Materials & Laser OpticsOEM and system integrators of industrial, medical, and personal comfort; laser end users who require replacement optics for their existing laser systems; manufacturers of semiconductor capital equipment; mineral processors and refiners • Applied Materials, Inc. • Beckman Coulter • Bystronic Laser AG • Carl Zeiss AG • Nikon Corporation • TRUMPF GmbH Co. KGLaser Components & SubsystemsManufacturers of industrial laser components, optical communications equipment, and consumer technology applications; automotive manufacturers; OEM and subsystem integrators of machine vision, biomedical instruments, and fiber lasers; laser cutting machines for superhard materials • 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 • Dongguan Tianyu Semiconductor Technology Co., Ltd. • Hyundai Mobis Co., Ltd. • Infineon Technologies AG • Mitsubishi Corporation • Qorvo, Inc. • Sumitomo Electric Device Innovations Inc. Optoelectronic Devices and 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 AmericaManufacturers of displays and semiconductor capital equipment, equipment for life sciences instrumentation, scientific research, and various other industrial • Agilent Biosciences (Hangzhou) Co. Ltd • Aselepiion Laser Technologies GmbH • Lasertec USA, Inc. • Sumitomo Heavy Industries Ltd. Solid State Lasers-EuropeManufacturers 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 is a global leader in many of its product families. We compete, in part, on our 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 following are among our top competitors (in alphabetic order): • Broadcom Corporation • IDEX Corporation • InnoLight Technology Corp (Suzhou) Ltd. • IPG Photonics, Inc. • Lumentum Operations LLC • MKS Instruments, Inc. • Molex, LLC • O-Net Technologies (Shenzhen) Group Co., Ltd. • Sony Group Corporation • Trumpf GmbH Co. KG • Wolfsped, Inc 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. Research and Development During the fiscal year ended June 30, 2023-2024, we continued to identify, invest in, and focus our research and development R & D 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 Phase Gate Process. We devote significant resources to R & 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 R & 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 R & D 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, 2023-2024, we focused our R & D investments in the following areas: NetworkingArea of Development: Our R & D Investments: Photonics designContinue to develop and improve crystal materials, precision optical parts, and laser device components for photonics applications; develop new platforms and capabilitiesDatacom transceiversContinue to develop high-end 200G/400G/800G / 1.6T products- product development , including RF and packaging designs; explore high-density, high-bandwidth co-packaged designs with VCSELs and through silicon photonics -based designs ; continue to develop vertically integrated designs, including with lasers and ICs; continue cost

reduction on 400G / 200G and 10G- 100G products by leveraging our engineering resources and manufacturing scale
Optical circuit switch (OCS) Develop the OCS product family for AI / ML and hyperscale data centers based on the digital liquid- crystal technology that underpins one of our WSS product
Coherent lines Coherent optics and transceivers Drive further integration to reduce size and power consumption; increase bandwidth to enable 100G / 200G / 400G / **800G** coherent transceivers; optimize product cost with new design architectures and more efficient manufacturing flow
Integrated circuits Develop high- speed integrated circuits for **data communications and** coherent optical communications
Pump lasers Continue to invest in our next- generation GaAs pump laser portfolio and flexible manufacturing footprint to address evolving terrestrial and undersea markets
Develop InP growth and processing capability together with associated packaging technology for Raman amplification applications
Optical amplifiers and subsystems Invest in and broaden the range of amplifiers and integrated subsystems, including ROADMs
Optoelectronic chip hybrid integration platform (OCHIP) Develop wafer- scale assembly technologies and processes for integration of lasers, optics, and ICs
Silicon photonics devices Develop silicon- based photonic **ICs- devices** for coherent and direct- detection transceivers and co- packaging solutions
WSS Develop **solutions** **Wavelength selective switches** **Develop** LC and LCoS technologies and associated module designs for WSS; invest in manufacturing equipment, including the WSS automated assembly platform
Optical monitoring Continue optical channel monitoring investment
Develop OTDRs to monitor the health of the fiber plant
Micro- optics manufacturing Shift toward smaller, more compact optics and automated assembly platforms and packages
Invest in manufacturing equipment for computerized processes
Materials Area of Development: Our R & 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 multi- junction VCSELs for 3D sensing and consumer devices as well as next- generation, high- speed VCSELs for datacom applications
Develop 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 cutting
CVD diamond technology **Develop CVD diamond** for EUV applications and as substrates for high- performance RF devices
Broaden our portfolio beyond infrared window applications
SiC technology SiC epitaxial wafers, devices, and modules
Develop advanced SiC substrate growth technologies to support emerging markets in GaN RF and SiC power electronics
Continuous improvement to maintain world- class, high- quality, large- diameter substrates and epitaxial wafers
Develop SiC epitaxial wafers, SiC diodes and MOSFET devices, and SiC power modules
Thermoelectric materials and devices Continue to develop leading Bi2Te3 materials for thermoelectric cooling / heating
Focus on thermoelectric power- generation capability in order to introduce new products
Metal matrix composites and reaction- bonded ceramics Support industrial customers in developing application- specific material wear- out, **lightweight high- mechanical stability materials**, and thermal- management solutions
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 ICs**
Battery technology **Develop technology for lithium- ion batteries and battery recycling processes**
Additive manufacturing **Develop alloys and multibeam delivery systems for laser additive manufacturing**
Develop binder jet additive manufacturing for advanced ceramic components
Lasers Area of Development: Our R & D Investments: Diode- pumped **Solid- state Lasers** **Continue 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 Lasers **Continued development of industrial femtosecond fiber lasers** with 50- 200 μ J pulse energy, including UV generation, for semiconductor capital equipment and display manufacturing
Power- scaling and wavelength range extension for low energy (< 1 μ J), high repetition rate (80 MHz), femtosecond fiber laser systems used in multi- photon **imaging**
Femtosecond Oscillators and Amplifiers **Continue 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 (OPSLs) **Continue to broaden the product portfolio of continuous- wave, visible, and ultraviolet OPSLs** 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 Lasers **Increase 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 Tools **Continue 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 Lasers **Continue 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 Tools **Continue to develop laser- based tools** used for marking, cutting, and welding applications with an emphasis on process control
Laser Crystal and Nonlinear Crystal Growth **Support 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 Systems** **Continued 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 & D Area of Development: Our R & D Investments: Space-based laser communications Develop technology and devices for space-based laser communications Research and development R & D expenditures were \$ 479 million, \$ 500 million, and \$ 377 million; and \$ 330 million for the fiscal years 2024, 2023, and 2022, and 2021, 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 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, 2023 2024, we had a total of approximately 3,000-100 patents globally. Executive Officers of the Registrant The executive officers of the Company and their respective ages and positions as of June 30, 2023-2024, are set forth below. Each executive officer listed has been appointed by the Board of Directors to serve until removed or until a successor is appointed and qualified.

Name	Age	Position	Vincent	Name	Age	Position	Jim Anderson	51	Chief	D. Mattera, Jr.	67	Chair and Chief Executive Officer																							
Giovanni Barbarossa	61	Chief Strategy Officer and President, Materials	Walter R. Bashaw	55	President	Mary	58	President	Richard Jane Raymond	62	Chief	Martucci	56	Interim Chief	Financial Officer and Treasurer	Christopher Koeppen	52	Chief Innovation Officer	Julie Sheridan Eng	56	Chief Technology Officer	Ronald Basso	63	Chief Legal and Compliance Officer & Secretary	Mark	Secretary	Ilaria Sobey	63	President, Lasers	Vincent D. Mocciaro	53	Chief Accounting Officer	Jim Anderson	51	Chief Executive Officer of Coherent Corp.

Dr. Mattera and a member of the Board of Directors on June 3, 2024. He previously served as a director and member of the Coherent Board 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. In September 2016, Dr. Mattera became the Company's third President and Chief Executive Officer in 45 years and of Lattice Semiconductor Corporation since September 2018. Prior to joining Lattice, Mr. Anderson served as the Company Senior Vice President and General Manager of the Computing and Graphics Business Group at Advanced Micro Devices, Inc. (AMD). Prior to AMD, Mr. Anderson held a broad range of leadership positions spanning general management, engineering, sales, marketing, and corporate strategy at companies including Intel, Broadcom (formerly Avago Technologies), and LSI Corporation. Mr. Anderson served on the Board of Directors of Entegris, Inc., from March 2023 to July 2024 and on the Board of Directors of the Semiconductor Industry Association through June 2024. He previously served on the Board of Directors of Sierra Wireless from April 2020 to January 2023. Mr. Anderson earned an MBA and Master of Science degree in electrical engineering and computer science from the Massachusetts Institute of Technology, a Master of Science degree in electrical engineering from Purdue University, and a bachelor's President through June 2019, when the roles of President and Chief Executive Officer were separated. Dr. Mattera became the Company's Board Chair immediately following the 2021 Annual Meeting. During his career at Coherent, he has assumed successively broader management roles, including as a lead architect of the Company's growth and diversification strategies. The platforms that the Company has added under his leadership have contributed to positioning the Company into large and transformative global growth markets while increasing our global reach, deepening our technology and IP portfolio, broadening our product roadmap and customer base, and increasing the potential of the Company. Prior to joining the Company 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 years of leadership experience in the compound semiconductor materials and device technology, operations and markets that are core to Company's business and strategy. Dr. Mattera holds a B. S. degree in chemistry electrical engineering from the University of Minnesota Rhode Island (1979), and a Ph. D. in chemistry from Brown University (1984). He completed the Stanford University Executive Program in 1996. He 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 in 2012 and has been the Chief Strategy Officer of the Company and the President of the Materials 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 Avonex 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 Avonex merged with Bookham Technology, forming Oclaro, Inc., Dr. Barbarossa became a member of the Board of Directors of Oclaro and served as such from 2009 to 2012. Previously, he had management responsibilities at British Telecom, AT & T Bell Labs, Lucent Technologies, and Hewlett Packard. Dr. Barbarossa graduated from the University of Bari, Italy, with a B. S. in Electrical Engineering, and 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 M & A and integration work. Prior to joining the Company, Mr. Bashaw was a senior partner at the law firm of Sherrard, German & Kelly, P. C. in Pittsburgh, Pennsylvania, where his areas of expertise were corporate law, mergers and 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 which he was the editor-in-chief of the University of Pittsburgh Journal of Law and Commerce. He holds a B. S. in Logistics from the Pennsylvania State University. **Richard Martucci** has been **the interim** Chief Financial Officer and **interim** Treasurer of the Company **for Coherent Corp** since **March September 2023**. He **joined Coherent in 2014 2015**. Previously, Ms. Raymond was **as Executive the Infrared Optics Division Controller and since then has served as the Lasers Solutions Segment Vice President of and Chief Financial Finance Officer of Hudson Global Inc., from 2005 to 2013. Ms. Raymond was the Materials Segment Chief Risk Officer and Vice President of Finance and Corporate Controller at Dun and Bradstreet, and most recently Inc., from 2002 to 2005. In addition, she was the Senior Vice President of Business Operations. Prior to joining Coherent, Merger Integration, Mr. Martucci served in various financial roles at Xylem Lucent Technologies, Inc. from 1997 to 2002, and held Thermo Fisher Scientific Inc. He has over 30 years' experience in finance and manufacturing operations across several industries management positions at Cummins Engine Company from 1988 to 1997. Mr. In 2019, Ms. Martucci Raymond was named to the Board of Directors and Audit Committee of Veeva, Inc. Ms. Raymond holds a bachelor of science B. A. degree in Public Management Business Administration from Robert Morris St. Joseph's University, and an and a MBA from Stanford Gannon University. He is a registered CPA in the state of Illinois. 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 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 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 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). In 2022, Dr. Eng was elected a Fellow of Optica (formerly the Optical Society of America) for distinguished contributions to the advancement of optics and photonics. Ronald Basso joined the Company 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 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 IPO team in 1987 and as Coherent'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. **Iliaria Mocciano joined Mark Sobey became an executive officer of the Company and was named President of the Lasers segment following the closing of our acquisition of Legacy Coherent Corp. in July February 2022 2023. Previously, Dr. Sobey served as the Senior Legacy Coherent's, Chief Operating Officer from April 2020 to July 2022. He was previously Executive Vice President, Chief Accounting Officer, and General Manager of Corporate Controller. Ms. Mocciano joined Coherent from CDW, where Inc.'s, OEM Laser Sources until being promoted to COO, and before that he she was Executive the Vice President, Chief Accounting Officer, and General Manager Controller from 2020 to 2022. From 2016 to 2020, she was the Senior Vice President, Chief Accounting Officer, and Global Controller at Anixter International Inc., where she helped close the sale of Specialty Laser Systems (SLS) Anixter to Wesco. From 2011 to 2016, Ms. Mocciano was the Chief Accounting Officer of the agricultural and construction equipment segments at CNH Industrial N. V., after serving as Director of Accounting and Reporting. She led Internal Audit at McMaster- Carr Supply Company from 2010 to 2016 2011, and Vice President previously held several management positions at Ernst & Young LLP in Chicago and General Manager of SLS Milan, Italy, from 2007 until 1997 to 2010. Ms. Prior to his service with Legacy Coherent, Dr. Mocciano holds a Sobey spent over 20 years in the laser and fiber optics telecommunications industries, including senior vice president roles in product management at Cymer and in global sales at JDS Uniphase. He received his Ph. D. in Engineering and B. Se-A. degree in Physics Accounting and Business Administration from the Catholic University of Strathelyde in Scotland. In July 2023, Dr. Sobey announced his plan to retire from the Company effective September 1, 2023. Sacred Heart (Università Cattolica del Sacro Cuore) in Milan.****

Availability of Information Our internet address is www.coherent.com. Information contained on our website is not part of, and should not be construed as being incorporated by reference into, this Annual Report on Form 10-K. We post the following reports on our website as soon as reasonably practical after they are electronically filed with or furnished to the 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 condition or cash flows. These risk factors should be considered along with ~~the any~~ 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 the key components for fast growth markets**. 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, 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 **and** 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 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. As a result of the technological complexity of our products, in particular our excimer laser annealing tools used in the 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 **relatively large** companies, including Finisar Corporation in September 2019 and ~~Legacy~~ Coherent, **Inc.** 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 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

incurred substantial expenses related to the acquisition of Legacy-Coherent, Inc. and we continue to incur substantial expenses related to the integration of Legacy-Coherent, Inc. 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: • a significant negative financial result from the acquired company relative to our pre-acquisition expectations; • unexpected losses of key employees of the acquired company; • standardizing the combined company's standards, processes, procedures, and controls, 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: • using a significant portion of our available cash; • issuing equity securities, which would dilute current shareholders' percentage ownership; • incurring significant debt; • incurring or assume contingent liabilities, known or unknown, including potential lawsuits, infringement actions, or similar liabilities; • incurring impairment charges related to goodwill or other intangibles; and • 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 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 time-consuming 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 location-by-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. 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. 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. 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.....; and damage to our reputation. 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, **or changes in technology**, 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, communications, electronics, and instrumentation markets. 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 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-~~ **condition**, 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 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, 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~~ **orders** 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 high- purity and relatively uncommon materials and compounds to manufacture our products, including, but not limited to, ZnS, GaAs, yttrium aluminum garnet, yttrium 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. **Situations where** ~~In the event~~ either our customers' or our products fail to gain market acceptance, or the semiconductor capital equipment market fails to grow, it would likely have a significant negative effect on our business and results of operations. In the 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 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 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~~ **results of operations** 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, **suppliers**, 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 policies; • 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 the global novel coronavirus disease 2019 (COVID-19), we have focused intensely on mitigating the adverse impacts of COVID-19 on our foreign and domestic operations and modified our business practices for the continued health and safety of our employees. 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 also implemented measures, which to mitigate the adverse impacts of COVID-19, which resulted in, and may continue to result in, disruptions or delays and higher costs. 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.~~ 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 have a material adverse impact on our business, 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, communications, electronics and instrumentation 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 to foreign currency fluctuations, and foreign exchange controls may prevent us from repatriating cash in countries outside the **United States U.S.** Prolonged periods of inflation have the potential to adversely affect our business, results of operations, financial condition and liquidity by increasing our overall cost structure, particularly if we are unable to achieve commensurate increases in the prices we charge our customers. The existence of inflation in the economy has and may continue to result in higher interest rates and capital costs, supply shortages, increased costs of labor and other similar effects. Further, world events such as the conflict between Russia and Ukraine could affect inflationary trends. As a result of inflation, we have experienced and may continue to experience, increases in our costs associated with operating our business including labor, equipment and other inputs. Additionally, our borrowing costs, including those under our current 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 (**as amended, restated, supplemented and / or otherwise modified from time to time**, the "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 **to** 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 Credit Agreement. The 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 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~~ **accelerate** the repayment of the borrowings, we may not have sufficient assets to repay that indebtedness. Any acceleration of amounts due under the 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 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 **products or** 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 **our products or** 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, **products,** 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, **financial accounting and reporting rules and regulations, competition laws, employment and labor laws, pensions and social insurance, and environmental health and safety laws and regulations. We are also subject to a number of laws, rules, regulations, and reporting requirements regarding cybersecurity, data privacy requirements, competition laws data residency, data localization employment and labor laws, pensions and social insurance artificial intelligence, and environmental health** **other data processing activities, which are rapidly evolving in the United States and safety laws and regulations in many other jurisdictions in which we operate.** Compliance with ~~these~~ **the myriad of global** laws and regulations **to which we are subject** 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 also~~ result in significant uncertainties in how they will be interpreted and enforced. Failure to comply with any of these **United States and / or** foreign laws and regulations could have a material adverse effect on our business, results of operations, or financial condition. **Given the size, nature and complexity of our business and the extensive and varying nature of the global legal and regulatory requirements to which we are subject, we are particularly susceptible to investigations, claims, disputes, enforcement actions, prosecutions, litigation and other legal proceedings that could ultimately be resolved against us. We are and may become subject to legal proceedings globally (including criminal, civil and administrative) across a broad range of matters, including, but not limited to intellectual property claims,**

employment matters, contractual disputes, etc. These matters can result in settlements, administrative, civil or criminal fines, penalties or other sanctions, monetary damages awards, non-monetary relief, and other liabilities; and they could also damage our reputation and make it significantly more difficult for us to compete and generate new business and sales contracts. Investigations, claims, disputes, enforcement actions, litigation or other legal proceedings could have a material adverse effect on our business, results of operations, or financial condition. We may face particular data-privacy, security and data protection risks due to laws and regulations regulating the protection or security of personal and other sensitive data in the jurisdictions in which we operate or do business, including, in particular several laws and regulations that have recently been enacted or for example adopted or are likely to be enacted or adopted in the future. For instance, effective May 25, 2018, the European Union's EU 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 established a privacy program office that oversees global compliance of privacy laws (including GDPR), introduced a Data Protection Policy, implemented a security system for data protection management and updated our international Intra-Group Data Transfer Agreement to 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 (as amended by the California Privacy Rights Act of 2020) (the "CCPA"), which became effective January 1, 2020, China's Personal Information Protection Law, 2020, Data Security Law and gives consumers and employees many of the same rights. Cybersecurity Law (together, "China DP Law"), as those available under GDPR. Similar well as newly enacted or amended privacy and data protection laws to, such as the CCPA have been enacted in India Digital Personal Data Protection Act 2023 (the United States at both "DPDP Act"), Vietnam's Decree No. 13 / 2023 / ND-CP on the federal Protection of Personal Data (the "PDPA"), South Korea's Personal Information Protection Act (as amended in 2023) (the "PIPL"). Privacy, cybersecurity and state-level data protection laws are rapidly developing and evolving and associated regulatory, enforcement and litigation trends and risks continue to evolve as well. 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. Further As and additional example, there-- the have also been recent developments concerning obligations and requirements we are subject to vary, and in some cases may conflict, under global privacy, cybersecurity and data protection laws. While security in China, where we have taken significant operations measures to minimize the risks of enforcement and privacy-related claims, comply with data protection laws, and implement safeguards and compliance measures for cross-border data transfers, given the shifting compliance and enforcement landscape, the geographic scope of our business, and the varying laws and legal obligations to which we are subject, we may face threatened or actual enforcement actions and other claims related to our compliance with applicable privacy, cybersecurity and data protection laws. Violations of these privacy, cybersecurity, and data protection laws may be subject to significant penalties and damages. For example, the Data Security Law failure to comply with GDPR requirements is subject to fines of the People's Republic up to 20 million Euro or 4% of China global annual revenues, whichever is higher. In addition, we could be subject to actual or threatened class actions under certain laws, such as the (which provides a private right of action to individuals for certain data breaches) and the California Information Privacy Act. The costs of compliance with privacy, cybersecurity and data protection laws continue to increase as do the risks of enforcement, and cumulatively the impact of these could have a material effect on our business, results of operations, or financial condition. We depend on secure information technology for our business and are exposed to risks related to cybersecurity threats and other cyber incidents affecting our operations, facilities, systems and networks, and those of our customers, suppliers and service providers, and other third parties. We have experienced cybersecurity incidents and some of these have resulted in data breaches. Thus far, none of these incidents or breaches have materially affected our ability to conduct our business, our results of operations, or our financial condition. However, we continue to face cyber and other security threats. Particularly in light of the nature of our industry, size of our company and workforce, reliance on third party suppliers and information technology and the global scope of our operations, we expect we will be subject to additional cyber-attacks and other security incidents in the future, including from nation states and non-state actors. While we continue to invest in the cybersecurity and resiliency of our networks and to enhance our internal controls and processes designed to help protect our systems and infrastructure, and the information they contain, given the complex, ongoing, and evolving nature of cyber and other security threats, these efforts may not be fully effective, particularly against previously unknown vulnerabilities and third party risks that go undetected for an extended period of time. Our information technology and cybersecurity program also incorporate and rely on technology, products and services that are provided by service providers and other third parties ("third parties 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, which means that Company 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 susceptible to certain vulnerabilities be taken for each respective category of data. Further, outages and

other incidents impacting these third parties and the technology, products and services they provide. Personal Information Protection Law (the “PIPL third party technology”) took effect in China in November 2021. Cyber events (including cybersecurity incidents, breaches, outages and other incidents), if not prevented or effectively mitigated, have caused and could cause harm and require remedial actions. They could also damage our reputation, disrupt performance, impact our ability to obtain future insurance coverage, and lead to loss of business, regulatory actions, liabilities or other financial losses, for which we do not have adequate sources of recovery. The PIPL raises 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 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) and other proprietary business information, 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, vendors unauthorized access, misappropriation partners, customers and other business contacts, and other regulated or protected data corruption of this information. Security breaches of our network, systems 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. We could be subject to service outages or breaches of security that result in unauthorized access to, use, disclosure, acquisition or processing of sensitive data or other assets, and other incidents that lead to the corruption, misappropriation or loss, or otherwise impact the availability of, sensitive data or assets. If we are unable to prevent or contain fully mitigate the risks or potential harm from such security incidents or privacy breaches, our operations could be disrupted or we could suffer legal claims, loss of reputation, financial loss, loss of contracts or business opportunities, property damage, or regulatory penalties. In addition, some of the privacy, cybersecurity and data protection laws that we are subject to require that we report data breaches and other cybersecurity incidents to regulators and impacted individuals, including incidents occurring or impacting our vendors and service providers. For example, in the EU, the GDPR, and in the United States, all fifty states and certain federal regulations, require notice or reporting of certain breaches of personal data. In addition, some laws including certain U. S. federal laws and regulations, require reporting of certain cybersecurity incidents regardless of whether a data breach has occurred. In some cases, breaches and incidents may be reported to multiple regulators and public bodies, which can lead to increased risks of regulatory scrutiny, enforcement actions, reputational harm and other adverse impacts to our business. Hazardous substances used or generated in some of our research and manufacturing facilities are subject to stringent environmental and safety 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 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 United States 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, 2023-2024, we had approximately \$ 4. 3-1 billion of outstanding indebtedness on a consolidated basis, 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 (iii) our \$ 990 million 5. 000 % senior notes due 2029 (the “2029 Notes”). Additionally, we have \$ 348-346 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. The Credit Agreement and the Indenture, dated as of December 10, 2021 (**as amended, restated, supplemented and / or otherwise modified from time to time**, 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~~ **4.25-00** to 1.00 ~~from 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~~ **from** 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~~ **through maturity** and (ii) an interest coverage ratio, as defined in the 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 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 “ 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. **The various tax authorities may also challenge recent legal entity restructuring and integration undertaken to facilitate cost reductions and the increased efficiency of our business and finance activities**. 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~~ **operations**, 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. We are highly dependent upon the experience and continuing services of certain scientists, engineers, 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 execute on our succession planning may affect our ability to maintain our differentiated knowledge base. 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 customers and, accordingly, often negotiate more favorable terms from suppliers, including us. As we seek to expand our sales to existing and new large customers, we may be required to agree to terms and conditions that are more favorable to 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. Furthermore, large customers have increased buying power and ability to negotiate onerous terms into our contracts with them, including pricing, warranties, 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 have the potential to impact our operations directly or indirectly as a result of required compliance by our customers and / or suppliers. 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, with one customer contributing more than 10 % of total revenues in fiscal 2023-2024. Our success will depend on our continued ability to develop and manage relationships with our 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 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 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 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 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 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 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 \$ 150-175 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 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.

On October 10, 2023, Silicon Carbide LLC (“ Silicon Carbide ”), a wholly owned subsidiary of the Company, entered into (i) an investment agreement (the “ Denso Investment Agreement ”) with Denso Corporation (“ Denso ”) pursuant to which Silicon Carbide issued and sold to Denso 16, 666, 667 Class A Common Units of Silicon Carbide (“ Common Units ”) for an aggregate purchase price of \$ 500, 000, 000, and (ii) an investment agreement (together with the Denso Investment Agreement, the “ Investment Agreements ”) with Mitsubishi Electric Corporation (“ MELCO ”) pursuant to which Silicon Carbide issued and sold to MELCO 16, 666, 667 Common Units for an aggregate purchase price of \$ 500, 000, 000 (the issuance and sale of the Common Units to Denso and MELCO, collectively the “ Equity Investments ”). Following the Equity Investments and as of June 30, 2024, the Company owns approximately 75 % of Silicon Carbide’s outstanding Common Units, Denso owns approximately 12.5 % of the outstanding Common Units and MELCO owns approximately 12.5 % of the outstanding Common Units. In May 2023 connection with the entrance into the Investment Agreements, we announced that we Silicon Carbide also entered into certain supply arrangements with each of MELCO and Denso pursuant to which Silicon Carbide will supply 150 mm and 200 mm silicon carbide substrates and epitaxial wafers. We are reviewing strategic alternatives for subject to a number of risks associated with this transaction, including risks associated with:

- **the separation of our silicon carbide business in accordance with 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.**
- **the Investment Agreements; • unfavorable reaction to Equity Investments by customers, competitors, suppliers and employees; • the disruption to dependency of any transaction could adversely impact Coherent and uncertainty in our business (including our silicon carbide business), including through potential business disruption, diversion of management time and our attention and reduced employee retention, and potential impacts on Coherent’s relationships with its customers and, including attempts by our customers to terminate or renegotiate other their stakeholders relationships with us or decisions by our customers to defer or delay purchases from us; and • difficulties in hiring, retaining and motivating key personnel as a result of uncertainties generated by this process or any developments or actions relating to it. As a result of these risks, we may be unable to realize the anticipated benefits of the Equity Investments and related supply arrangements. Our failure to realize the anticipated benefits of the Equity Investments and related supply arrangements would adversely impact our operations, financial condition and business and could limit our ability to pursue additional strategic transactions.**

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. 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 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 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 ensure you that our expenditures for research and development will result in the 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~~ **and indefinite life intangible assets are** 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 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. The trading prices for our common stock varied between a high of \$ ~~60.73~~ **46.98** per share and a low of \$ ~~26.28~~ **29.92** per share in the fiscal year ended June 30, ~~2023~~ **2024**. 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 of 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 Series B Preferred Stock); • 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. 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~~ **litigations** 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. 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 of Directors to issue additional shares of common stock or preferred stock without shareholder approval; and • certain provisions requiring supermajority approval (at least two- thirds of the votes cast by all shareholders entitled to vote thereon, voting together as a single class). In addition, the 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 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 Code, a "short-form" merger of Coherent Corp. cannot be implemented without the consent of our Board of 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 Code provides that directors, in discharging their duties, may consider, to the extent 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 Code expressly provides that directors do not violate their fiduciary duties solely by relying on "poison pills" or the anti-takeover provisions of the 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, 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 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 of 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 Board of Directors deems relevant. The terms of the Credit Agreement contain a restriction on our ability to pay cash dividends on our capital stock. 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 of 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. 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 depository shares representing such preferred stock then outstanding. Our common stock ranks junior to our 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 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 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 Series B Preferred Stock only after all of our consolidated liabilities have been paid. In addition, the Series B Preferred Stock ranks 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 Series B Preferred Stock then outstanding. Our Articles of Incorporation authorize our Board of 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 of Directors also has the 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 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. 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 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 of 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. 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. 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, 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.