Risk Factors Comparison 2024-02-29 to 2023-03-01 Form: 10-K

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The following risk factors should be considered in conjunction with the other information included in this Annual Report on Form 10- K. This report may include forward- looking statements that involve risks and uncertainties. In addition to those risk factors discussed elsewhere in this report, we identify the following risk factors, which could affect our actual results and cause actual results to differ materially from those in the forward- looking statements. Risk Factor Summary Our business is subject to numerous risks and uncertainties, including those described in Item 1A " Risk Factors. " These risks include, but are not limited to, the following: • Supply chain issues, including increasing demand for certain components used in our products and production delays, has and could continue to result in significant additional costs and manufacturing inefficiencies, which could adversely impact our revenue, increase our manufacturing costs and have a material adverse effect on our operating results. • Unfavorable economic or political conditions in the countries in which we operate may have an adverse impact on our business results or financial condition; • Adverse global economic conditions, **and** geopolitical tensions **, including in the Middle East, China and other regions,** and other conditions that impact our increasingly global operations could have a negative effect on our business, results of operations and financial condition and liquidity. ~~• Our financial condition and results of operations for fiscal 2023 may continue to be adversely affected by the COVID- 19 pandemic;~~ • We derive a significant portion of our revenue from international sales and are subject to the operational risks of doing business in foreign countries; • If our products fail to achieve and sustain sufficient market acceptance across their broad intended range of applications, we will not generate expected revenue; • Our products compete in markets that are subject to rapid technological change, and one or more of the technologies underlying our products could be made obsolete by new technology; • If investment in life and material science research spending declines, our ability to generate revenue may suffer; • Any reduction in the capital resources or government funding of our customers could reduce our sales and impede our ability to generate revenue; • Disruptions at any of our manufacturing facilities could adversely affect our business; • In addition to the risks applicable to our life science and materials analysis products, our CBRNE detection products are subject to a number of additional risks, including lengthy product development and contract negotiation periods and certain risks inherent in long- term government contracts; • Our debt may adversely affect our cash flow and may restrict our investment opportunities or limit our activities; • If we lose our strategic partners, our marketing and sales efforts could be impaired; • We face risks related to sales through distributors and other third parties that we do not control, which could harm our business; • Our operations are dependent upon a limited number of suppliers and contract manufacturers; • Supply shortages and increasing prices of raw materials could adversely affect the gross profit; • If we are unable to effectively protect our intellectual property, third parties may use our technology, which would impair our ability to compete in our markets; • We may be involved in lawsuits to protect or enforce our patents that are brought by us which could be expensive and time consuming and, if determined adversely, could adversely affect our patent position; • Our manufacture and sale of products could lead to product liability claims for which we could have substantial liability; • We are subject to environmental laws and regulations, which may impose significant compliance or other costs on us; and • We operate as an entrepreneurial, decentralized company, which presents both benefits and certain risks. In particular, significant growth in a decentralized operating model may put strain on certain business group resources and our corporate functions, which could materially and adversely affect our business, financial condition and results of operations. Risks Related to Our Business and Industry Supply chain issues, including increasing demand for certain components used in our products and production delays, has and could continue result in significant additional costs and manufacturing inefficiencies, which could adversely impact our revenue, increase our manufacturing costs and have a material adverse effect on our operating results. We have experienced supply chain interruptions as a result of ~~the COVID- 19 pandemic,~~ general global economic conditions, the war in Ukraine, ongoing conflicts between the United States and China, geopolitical tensions, a tight labor market and other factors, including natural events and disasters. Various factors, including increased demand for certain components and production delays, are contributing to shortages of certain components used in our products including microelectronic components and increased difficulties in our ability to obtain a consistent supply of materials at stable pricing levels. Supply shortages and longer lead times for components used in our products, including limited source components, have and can result in significant additional costs and inefficiencies in manufacturing. A shortage of key components has in the past and may in the future cause a significant disruption to our production activities, which could have a substantial adverse effect on our financial condition or results of operations. If we are unsuccessful in resolving any such component shortages in a timely manner, we could experience a significant adverse impact on the timing of our revenue, a possible loss of revenue, or an increase in manufacturing costs, any of which could have a material adverse impact on our operating results. Unfavorable economic or political conditions in the countries in which we operate may have an adverse impact on our business results or financial condition. Our businesses and results of operations are affected by international, national and regional economic and political conditions. Our businesses or financial results may be adversely impacted by unfavorable changes in economic or political conditions in the countries and markets in which we operate, including, among others, adverse changes in interest rates or tax rates, volatility in financial and commodity markets, contraction in the availability of credit in the marketplace, geopolitical tensions and changes in capital spending patterns. Our revenue from U. S. operations represented approximately **26 % and** 28 ~~% and 25~~ % of total consolidated revenue for fiscal **2023 and** 2022 ~~and 2021~~, respectively. Our revenue from operations in Europe represented approximately 33 % ~~and 38 %~~ of total consolidated revenue for ~~both~~ fiscal years **2023 and** 2022 **respectively** ~~and 2021~~. Our revenue from operations in the Asia Pacific region represented approximately **33 % and** 32 ~~% and 30~~ % of total consolidated revenue in each of the corresponding periods. Economic factors that could adversely influence demand for our products include the impact of geopolitical tensions and any related sanctions implemented, continued uncertainty about global economic conditions, including as a result of the pandemic, leading to ongoing reductions in investment, changes in government spending levels and / or priorities, the size and availability of government budgets, customers' and suppliers' access to credit and other macroeconomic factors affecting government, academic or industrial spending behavior. Slower economic growth or a deterioration in economic conditions could result in a decrease in government funding for scientific research, a delay in orders from current or potential customers or a reduction in purchases of our products. We cannot predict how changes in economic conditions or political instability will affect our customers and suppliers or how any negative impact on our customers and suppliers might adversely impact our business results or financial condition. As a global company, our performance is affected by global economic conditions as well as geopolitical tensions and other conditions with global reach. In recent years, concerns about the global economic outlook have adversely affected market and business conditions in general. Macroeconomic weakness and uncertainty make it more difficult for us to manage our operations and accurately forecast revenue, gross margin and expenses. Geopolitical tensions, **including the conflict between Russia and Ukraine and related economic sanctions, the conflict in Israel, Palestine and surrounding areas, the possible expansion of** such **conflicts and potential geopolitical consequences** ~~as Russia' s incursion into Ukraine~~ , **the** ongoing ~~conflicts~~ **tensions** between the United States and China, tariff and trade policy changes, **and** ~~economic sanctions,~~ increasing potential of conflict involving countries in Asia that are ~~critical~~ **significant** to ~~our~~ **the Company' s** supply chain operations, such as Taiwan and China, have resulted in increasing global tensions and create uncertainty for global commerce. As a result of **the adverse** economic ~~sanctions on~~ **impacts resulting from the conflict between** Russia ~~we have faced disruptions to~~ **and Ukraine, such as increased prices for and a reduced supply of key metals used in** our **products, the Company has ceased its Russian** operations ~~within Russia, among other challenges~~ . Sustained or worsening of global economic conditions and increasing geopolitical tensions may increase our cost of doing business, materially disrupt our supply chain operations, cause our customers to reduce or delay spending and intensify pricing pressures. We have recently experienced an increase in inflationary pressures in many of the jurisdictions in which we operate. We have and may continue to offset the effect of these inflationary pressures by increasing the prices of our products to customers. In ~~2022~~ **2023** , however, our price increases did not fully offset the effects of inflation costs and may not offset any effects experienced during ~~2023~~ **2024** . Any or all of these factors could negatively affect demand for our products and our business, financial condition and result of operations ~~. Our financial condition and results of operations for fiscal 2023 may continue to be adversely affected by the COVID- 19 pandemic. The impact of the worldwide COVID- 19 pandemic has been and in certain geographies may continue to be extensive. The pandemic has resulted in and will likely continue to result to varying degrees in disruptions to the global economy, as well as businesses, supply chains and capital markets around the world. We are continuing to monitor and assess the ongoing effects of the COVID- 19 pandemic on our operations in 2023. Impacts to our business have included disruptions or restrictions on our employees' and customers' ability to travel, in particular to and from parts of Asia, and delays in product installations or shipments to and from affected countries. Certain Asia Pacific geographies where we operate are continuing to experience significant disruptions relating to COVID- 19. Much of the commercial activity in sales and marketing, and customer demonstrations and applications training, is still either being conducted remotely or, to a more limited extent, postponed. Even where customers in these and other geographies have re- opened their sites, some still operate at productivity levels that are below pre- pandemic levels in an effort to accommodate safety protocols and as a result of pandemic-related business disruptions. Any resurgence of the virus or the emergence of new strains of the virus, particularly any new strains which are more easily transmitted, or which are resistant to existing vaccines, may require us or our customers to close or partially close operations once again. These travel restrictions, business closures and operating reductions at Bruker, our customers, our distributors, and / or our suppliers have in the past adversely impacted and may continue to adversely impact our operations worldwide, including our ability to manufacture, sell or distribute our products, as well as cause temporary closures of our foreign distributors, or the facilities of suppliers or customers. Further, global supply chains, including for semiconductor chips, components and raw materials such as copper, continue to be disrupted, causing shortages, which has impacted our ability to manufacture and supply our products. We could also experience increased compensation expenses associated with employee recruiting and employee retention to the extent employment opportunities continue to multiply post- pandemic, causing the search for and retention of talent to become more competitive. This disruption of our employees, distributors, suppliers and customers has historically impacted and may continue to impact our global sales and future operating results. The preparation of the consolidated financial statements requires us to make estimates, judgments and assumptions that may affect the reported amounts of assets, liabilities, equity, revenues and expenses and related disclosure of contingent assets and liabilities. However, we cannot at this time predict the full extent to which the COVID- 19 pandemic will directly or indirectly impact future business, results of operations and financial condition, including sales, expenses, reserves and allowances, manufacturing, research and development costs and employee- related amounts, depends on future developments that continue to be uncertain, including as a result of new information that may emerge concerning new strains of the virus, the need for updated vaccines, the willingness of individuals to receive vaccines (including to protect against any new strains of the virus), and the actions taken to contain or treat the virus, including certain travel restrictions, as well as the economic impact on local, regional, national and international customers and markets. We have made estimates of the impact of COVID- 19 within the consolidated financial statements and there may be changes to those estimates in future periods. Actual results may differ from management' s estimates if these results differ from historical experience~~ . We derive a significant portion of our revenue from international sales and are subject to the operational risks of doing business in foreign countries. International sales account, and are expected to continue to account, for a significant portion of our total revenues. Our revenue from non- U. S. operations represented approximately **74 % and** 72 ~~% and 75~~ % of our total consolidated revenue for fiscal **2023 and** 2022 ~~and 2021~~ , respectively. Our international operations are, and will continue to be, subject to a variety of risks associated with conducting business internationally, many of which are beyond our control. These risks, which may adversely affect our ability to achieve and maintain profitability and our ability to sell our products internationally, include: • changes in foreign currency translation rates; • changes in regulatory requirements; • legislation and regulation, including tariffs, relating to the import or export of high technology products, which legislation and regulation may conflict with U. S. law and may have an adverse impact on our business results; • the imposition of government controls; • political and economic instability ~~, including the impact of COVID- 19~~ , the possibility of an economic recession in certain key markets such as Germany, international hostilities and resulting sanctions, acts of terrorism and governmental restrictions, inflation, trade relationships and military and political alliances; • costs and risks of deploying systems in foreign countries; • compliance with export laws and controls and trade embargoes in multiple jurisdictions, which may conflict with U. S. law and may have an adverse impact on our business results; • limited intellectual property rights; • the burden of complying with a wide variety of complex foreign laws and treaties, including unfavorable labor regulations, specifically those applicable to our European operations; and • compliance with U. S. and local laws affecting the activities of U. S. companies abroad, including the United States Foreign Corrupt Practices Act, or FCPA, and local anti- bribery laws. The United States has implemented tariffs on certain imported goods. These additional tariffs could include items imported by us from China or other countries. In addition, China has imposed tariffs on a wide range of American products in retaliation for these new American tariffs. As a result, there is a concern that the imposition of additional tariffs by the United States could result in the adoption of additional tariffs by China and other countries as well. Any resulting trade war could negatively impact the global market for scientific instruments and could have a significant adverse effect on our business. The imposition of tariffs on items imported by us from China or other countries could increase our costs and could result in lowering our gross margin on products sold. Conversely, any imposition by China of tariffs on items that we export to China could adversely impact our customers' ability to purchase our products and our competitive position in China or increase our costs, which could have a material adverse effect on our business and results of operations. We must also comply with the European Union General Data Protection Regulation (GDPR) and other similar regulations in other countries, including the UK Data Protection Act 2018. ~~The~~ **These laws include strong** ~~goal of the regulation is to increase individual rights and~~ protections for **individual privacy rights of residents of** ~~personal data located in or originating from~~ the European ~~Union~~ **Economic Area (" EEA ") and UK** . GDPR ~~is~~ **purports to apply** ~~extraterritorial~~ **extraterritorially** ~~in~~ **such** that it ~~applies~~ **can apply** to ~~all business~~ **businesses that are not established** within the **EEA, but** ~~European Union and any business located outside of the European Union~~ that ~~processes~~ -- **process** personal data of individuals located within the European Union **in connection with the offering of goods and services within the EEA** . There are significant fines associated with non- compliance. In 2020, the Court of Justice of the European Union invalidated the EU- US Privacy Shield Framework, a key mechanism for transfers of personal data from the European Union to the United States and altered the international data transfer under GDPR. Even though Bruker did not rely on the EU- US Privacy Shield for its transfers to the United States, Bruker ~~performed~~ **has conducted** a transfer impact assessment to understand the risks of its EU- US persona data transfers and implemented the new EU Standard Contractual Clauses (including the UK addendum). **More recently** ~~The Executive Order 14086 of October 7~~ , ~~2022 of~~ the ~~President of the~~ **European Commission and** United States **have agreed on a new** ~~has implemented the US- side of the~~ EU- US Transatlantic Data Privacy Framework that ~~will~~ **may** stabilize **rules for** ~~the lawfulness of the~~ transfers of personal data from the EU to the ~~US~~ **United States** . ~~Nevertheless~~ **However** , **ongoing litigation** ~~Until the European Commission adopts its adequacy decision on the new data transfer mechanism, the uncertainty for multinational companies on the matter remains,~~ and **challenges relating** ~~the cost and effort~~ to ~~comply with~~ such ~~requirements~~ **transfers** could cause disruption of data transfers and have a material adverse effect on our business. While the impact of these factors is difficult to predict, any one or more of these factors could adversely affect our operations in the future. Our competitive position and reported financial results may be adversely affected when we exchange foreign currency received from international sales into U. S. Dollars and by fluctuations in currency exchange rates. A significant portion of our business is conducted in currencies other than the U. S. Dollar, which is our reporting currency. As a result, currency fluctuations among the U. S. Dollar and the currencies in which we do business could cause the price of our products to be more or less competitive than our principal competitors' products. Currency fluctuations will increase or decrease our cost structure relative to those of our competitors, which could lessen the demand for our products and affect our competitive position. From time to time **,** we enter into certain hedging transactions and / or option and foreign currency exchange contracts which are intended to offset some of the market risk associated with our sales denominated in foreign currencies. We cannot predict the effectiveness of these transactions or their impact upon our future operating results, and from time to time they may negatively affect our quarterly earnings. In addition to the foreign currency exposure associated with differences between where our products are manufactured and sold by us and our competitors, our exposure to currency exchange rate fluctuations results from the currency translation exposure associated with the preparation of our consolidated financial statements, as well as from the exposure associated with transactions of our subsidiaries that are denominated in a currency other than the respective subsidiary' s functional currency. While our financial results are reported in U. S. Dollars, the financial statements of many of our subsidiaries outside the U. S. are prepared using the local currency as the functional currency. During consolidation, these results are translated into U. S. Dollars by applying appropriate exchange rates. As a result, fluctuations in the exchange rate of the U. S. Dollar relative to the local currencies in which our foreign subsidiaries report could cause significant fluctuations in our reported results. Moreover, as exchange rates vary, revenue and other operating results may differ materially from our expectations. The effects of changes in currency exchange rates decreased our **2023 revenue by approximately $ 11. 2 million, or 0. 4 %, decreased our** 2022 revenue by approximately $ 168. 0 million, or 6. 9 %, **and** increased our 2021 revenue by approximately $ 43. 3 million, or 2. 2 ~~%, and increased our 2020 revenue by approximately $ 29. 4 million, or 1. 4~~ %. Adjustments resulting from financial statement translations are included as a separate component of shareholders' equity. **We** ~~In the years ended December 31, 2022 and 2021, we~~ recorded net ~~losses~~ **gains** from currency translation adjustments of $ **15. 1 million in the year ended December 31, 2023, and net losses of $** 22. 0 million **in**

the year ended December 31 ~~and net losses of $ 26. 4 million~~ , ~~respectively~~ **2022** . Additionally, to the extent monetary assets and liabilities, including cash and debt, are held in a different currency than the reporting subsidiary' s functional currency, fluctuations in currency exchange rates may have a significant impact on our reported financial results, and may lead to increased earnings volatility. We may record significant gains or losses related to both the translation of assets and liabilities held by our subsidiaries into local currencies and the re- measurement of inter- company receivables and loan balances. Goodwill, intangible assets and other long- lived assets are subject to impairment which could negatively impact our operating results. We have recorded goodwill, intangible assets and other long- lived assets that must be periodically evaluated for potential impairment. We assess the realizability of the reported goodwill, intangible assets and other long- lived assets annually, as well as whenever events or changes in circumstances indicate that the assets may be impaired. These events or circumstances generally include operating losses or a significant decline in the earnings associated with the reporting unit these assets are reported within. A decline in our stock price and market capitalization may also cause us to consider whether goodwill, intangible assets and other long- lived assets may require an impairment assessment. Our ability to realize the value of these assets will depend on the future cash flows of the reporting unit in addition to how well we integrate the businesses we acquire. ~~We did not record any~~ **In connection with certain restructuring activities during fiscal 2023, the Company performed** impairment ~~losses~~ **assessments of its long- lived assets comparing the carrying values to the sum of their undiscounted future cash flows. Based on the results of these analyses, the Company determined there were no impairments to intangibles assets and goodwill** for the years ended December 31, **2023,** 2022 **,** and 2021 **. However, the Company recorded an impairment loss for certain right of use assets as disclosed in Note 16 to our consolidated financial statements included in Item 8 of this Annual Report on Form 10- K** . If our products fail to achieve and sustain sufficient market acceptance across their broad intended range of applications, we will not generate expected revenue. Our business strategy depends on our ability to successfully commercialize a broad range of products based on our technology platforms, including magnetic resonance technology, pre- clinical imaging technology, mass spectrometry technology, X- ray technology, atomic force microscopy technology, ChipCytometry technology, stylus and optical metrology technology, fluorescence microscopy technology, infrared technology and superconducting magnet technologies for use in a variety of life science, chemistry and materials analysis applications. Some of our products have only recently been commercially launched and have achieved only limited sales to date. The commercial success of our products depends on obtaining and expanding market acceptance by a diverse array of industrial, academic, clinical, pharmaceutical, biotechnology, applied, medical research and governmental customers around the world. We may fail to achieve or sustain substantial market acceptance for our products across the full range of our intended applications or in one or more of our principal intended applications. Any such failure could decrease our sales and revenue. To succeed, we must convince substantial numbers of potential customers to invest in new systems or replace their existing techniques with techniques employing our systems. Limited funding available for capital acquisitions by our customers, as well as our customers' own internal purchasing approval policies, could hinder market acceptance of our products. Our intended customers may be reluctant to make the substantial capital investment generally needed to acquire our products or to incur the training and other costs involved with replacing their existing systems with our products. We also may not be able to convince our intended customers that our systems are an attractive and cost- effective alternative to other technologies and systems for the acquisition, analysis and management of molecular, cellular and microscopic information. Because of these and other factors, our products may fail to gain or sustain market acceptance. Our products compete in markets that are subject to rapid technological change, and one or more of the technologies underlying our products could be made obsolete by new technology. The market for discovery and analysis tools is characterized by rapid technological change and frequent new product introductions. Rapidly changing technology could make some or all of our product lines obsolete unless we are able to continually improve our existing products and develop new products. Because substantially all of our products are based on our technology platforms, including magnetic resonance technology, mass spectrometry technology, X- ray technology, atomic force microscopy technology, fluorescence microscopy technology, ChipCytometry technology, stylus and optical metrology technology and infrared technology, we are particularly vulnerable to any technological advances that would make these techniques obsolete as the basis for analytical systems in any of our markets. To meet the evolving needs of our customers, we must rapidly and continually enhance our current and planned products and services and develop and introduce new products and services. In addition, our product lines are based on complex technologies that are subject to rapid change as new technologies are developed and introduced in the marketplace. We may have difficulty in keeping abreast of the rapid changes affecting each of the different markets we serve or intend to serve. If we fail to develop and introduce products in a timely manner in response to changing technology, market demands or the requirements of our customers, our product sales may decline, and we could experience significant losses. We face substantial competition. If we fail to compete effectively, it could harm our business results and materially impact the value of our company. We face substantial competition in our industries **,** and we expect that competition in all of our markets will increase further. Currently, our principal competition comes from established companies providing products using existing technologies that perform many of the same functions for which we market our products. A number of our competitors have expanded their market share in recent years through business combinations. Other companies also may choose to enter our fields in the future. Our competitors may develop or market products that are more effective or commercially attractive than our current or future products or that may render our products obsolete. Competition has in the past subjected, and is likely in the future to subject, our products to pricing pressure. **Certain** ~~Many of our~~ competitors have more experience in the market and substantially greater financial, operational, marketing and technical resources than we do, which could give them a competitive advantage in areas such as research and development, production, marketing and distribution. Our ability to compete successfully will depend, in part, on our ability to develop proprietary products that reach the market in a timely manner and are technologically superior to, less expensive than, or more cost- effective than, other currently marketed products. If investment in life and material science research spending declines, our ability to generate revenue may suffer. We are dependent, both directly and indirectly, upon general investment in life science research, particularly in the research and development budgets of the pharmaceutical and biotechnology industries, and in material science research as well as upon the financial condition and funding priorities of various governments and government agencies. Since our inception, both we and our academic collaborators and customers have benefited from various governmental contracts and research grants. Whether we or our academic collaborators will continue to be able to attract these grants depends not only on the quality of our products, but also on general spending patterns of public institutions. Any reduction in the capital resources or government funding of our customers could reduce our sales and impede our ability to generate revenue. A significant portion of our sales are capital purchases by our customers. The spending policies of our customers could have a significant effect on the demand for our products. These policies are based on a wide variety of factors, including the resources available to make purchases, the spending priorities among various types of equipment, policies regarding spending during recessionary periods and changes in the political climate. Any changes in capital spending or changes in the capital budgets of our customers could significantly reduce demand for our products. The capital resources of our life science and other corporate customers may be limited by the availability of equity or debt financing. Any significant decline in research and development expenditures by our life science and material science customers could significantly decrease our sales. In addition, a substantial portion of our sales are to non- profit and government entities, which are dependent on government support for scientific research. Any decline in this support could decrease the ability of these customers to purchase our products. Disruptions at any of our manufacturing facilities could adversely affect our business. We have manufacturing facilities located in the United States, Europe, Israel and Malaysia. Many of our products are developed and manufactured at single locations, with limited alternate facilities. If we experience any significant disruption of those facilities for any reason, such as war or other geopolitical conflicts, strikes or other labor unrest, power interruptions, fire, earthquakes, or other events beyond our control, we may be unable to manufacture the relevant products at previous levels or at all. A reduction or interruption in manufacturing could harm our customer relationships, impede our ability to generate revenues from our backlog or obtain new orders and could have a material adverse effect on our business, results of operations, financial condition and cash flows. If employees were to engage in a strike or other work stoppage or interruption, our business, results of operations, financial condition and liquidity could be materially adversely affected. Many of our employees are represented by workers' councils and labor unions in certain jurisdictions, primarily in Germany and France. If disputes with these employees arise, or if our workers engage in a strike or other work stoppage or interruption, we could experience a significant disruption of, or inefficiencies in, our operations or incur higher labor costs, which could have a material adverse effect on our business, results of operations, financial condition and liquidity. In addition to the risks applicable to our life science and materials analysis products, our CBRNE detection products are subject to a number of additional risks, including lengthy product development and contract negotiation periods and certain risks inherent in long- term government contracts. Our CBRNE detection products are subject to many of the same risks associated with our life science products, including vulnerability to rapid technological change, dependence on mass spectrometry and other technologies and substantial competition. In addition, our CBRNE detection products and certain FT- IR products are generally sold to government agencies under long- term contracts. These contracts generally involve lengthy pre-contract negotiations and product development. We may be required to devote substantial working capital and other resources prior to obtaining product orders. As a result, we may incur substantial costs before we recognize revenue from these products. Moreover, in return for larger, longer- term contracts, our customers for these products often demand more stringent acceptance criteria. These criteria may also cause delays in our ability to recognize revenue from sales of these products. Furthermore, we may not be able to accurately predict in advance our costs to fulfill our obligations under these long- term contracts. If we fail to accurately predict our costs, due to inflation or other factors, we could incur significant losses. Also, the presence or absence of such contracts may cause substantial variation in our results of operations between fiscal periods and, as a result, our results of operations for any given fiscal period may not be predictive of our results for subsequent fiscal periods. The resulting uncertainty may have an adverse impact on our stock price. We rely on information technology to support our operations and reporting environments. A security failure of that technology, including with respect to cybersecurity, could impact our ability to operate our businesses effectively, adversely affect our financial results, damage our reputation and expose us to potential liability or litigation. We use information systems to carry out our operations and maintain our business records. Some systems are internally managed **,** and some are maintained by third- party service providers. Our ability to conduct business could be materially and adversely affected if these systems or resources are compromised, damaged or fail. This could be a result of a cyber- incident, social engineering scam, hacking, phishing attempts, malware, natural disaster, hardware or software corruption, failure or error, telecommunications system failure, service provider error or failure, intentional or unintentional personnel actions or other disruption. In the ordinary course of business, we collect and store sensitive data, including intellectual property, other proprietary information and personally identifiable information. Despite our security measures, our information technology and infrastructure may be vulnerable to cyber- attacks by hackers, including intrusions designed to access and exfiltrate information and to disrupt and lock- up access to systems for the purpose of demanding ransom payments, or breached due to employee error, malfeasance, or other disruptions. Further, a breach of our security systems or infrastructure, or those of our customers, suppliers and other business partners, could result in the disclosure, misuse, corruption or loss of confidential information, including intellectual property, personally identifiable information and other critical data of ~~ours~~ **the Company** and our employees, customers suppliers and other business partners. If this data is compromised, destroyed or inappropriately disclosed, it could have a material adverse effect, including damage to our reputation, **and** ~~damage to~~ our relationships with our employees, customers, suppliers and other business partners, decrease the value of our investments in research, development and engineering, disrupt our manufacturing processes, result in significant expenses to address and resolve the issues, fines or litigation or other proceedings by affected individuals, customers, suppliers, business partners or regulatory authorities. Our debt may adversely affect our cash flows and may restrict our investment opportunities or limit our activities. As of December 31,

~~2022~~ **2023** , we had outstanding an aggregate principal amount of debt totaling approximately $ 1, ~~220~~ **282** . ~~9~~ **8** million. We also had the ability to borrow an additional $ ~~600~~ **599** . ~~0~~ **6** million available under our existing credit facility. Most of our outstanding debt is in the United States and there are substantial cash requirements in the United States to service debt interest obligations, fund operations, capital expenditures and our declared dividends and finance potential acquisitions or share repurchases. Our ability to satisfy our debt obligations and meet our other liquidity needs depends on our future operating performance and on economic, financial, competitive and other factors beyond our control. Our business may not generate sufficient cash flow to meet our debt obligations or provide sufficient funds for our other objectives. If we are unable to service our debt or obtain additional financing, we may be forced to delay ~~strategic~~ **minority** acquisitions, capital expenditures or research and development expenditures or suspend our dividend payments and share repurchases. We may not be able to obtain additional financing on terms acceptable to us or at all. Furthermore, a majority of our cash, cash equivalents and short- term investments is generated from foreign operations, with $ ~~593~~ **398** . ~~8~~ **4** million, or ~~92~~ **81** . ~~0~~ **6** % held by foreign subsidiaries as of December 31, ~~2022~~ **2023** . We may incur ~~significant~~ **certain** tax consequences relocating cash from our foreign operations to the United States. Our financial condition and results of operations could be adversely impacted if we are unable to maintain a sufficient level of cash flow in the United States to address our funding requirements through cash from operations and timely repatriation of cash from overseas or other sources obtained at an acceptable cost. Additionally, the agreements governing our debt require that we maintain certain financial ratios related to maximum leverage and minimum interest coverage and contain affirmative and negative covenants, including among others, timely provision of audited consolidated financial statements, restrictions on liens, indebtedness of the Company and its subsidiaries, asset sales, dividends and transactions with affiliates. Our ability to comply with these financial restrictions and covenants is dependent on our operations and performance, which is subject to prevailing economic conditions and other factors, including factors that are beyond our control such as foreign currency translation rates and interest rates. Our failure to comply with any of these restrictions or covenants may result in an event of default under the applicable debt instrument, which could permit acceleration of the debt under the facility and require us to prepay the debt before its scheduled due date. Changes in our effective income tax rate could adversely affect our results of operations. We are subject to income taxes in both the United States and various foreign jurisdictions and our domestic and international tax liabilities are largely dependent upon the distribution of income among these different jurisdictions. Various factors may have favorable or unfavorable effects on our effective income tax rate. These factors include interpretations of existing tax laws, the accounting for stock options and other share- based compensation, changes in tax laws and rates, future levels of research and development spending, changes in accounting standards, changes in the mix of earnings in the various tax jurisdictions in which we operate, the outcome of examinations by the U. S. Internal Revenue Service and other tax authorities, the accuracy of our estimates for unrecognized tax benefits and realization of deferred tax assets and changes in overall levels of pre- tax earnings. A change in tax laws, treaties or regulations, or their interpretation, of any country in which we operate could result in a higher tax rate on our earnings, which could result in a significant negative impact on our earnings and cash flow from operations. For example, **on August 16, 2022,** the **President** ~~Biden administration has proposed significant changes to the tax laws~~ of the United States **signed into law** ~~, including an increase to the federal corporate tax rate, limiting deductions where certain conditions exist, and several proposals that would have the combined effect of increasing the U. S. taxation on profits earned outside the United States. In July and August 2022, the CHIPS and Science Act, or CHIPS, and~~ the Inflation Reduction Act ~~, or~~ **of 2022 (the "** IRA **"), a** ~~were signed into law. The IRA introduced~~ tax **and spending package that introduces several tax- related** provisions **, including** ~~primarily focused on implementing~~ a 15 % corporate alternative minimum tax **(" CAMT ")** on ~~the global adjusted financial statement income of~~ certain large corporations and a 1 % excise tax on ~~share~~ **certain corporate stock** repurchases **. The IRA provisions** , which ~~are both~~ **became effective for the Company beginning on January 1, 2023, did not have a material impact on the Company during the year ended December 31, 2023. In December 2021, the Organization for Economic Co- operation and Development (OECD) / G20 Inclusive Framework, agreed to implement a global minimum tax regime for multinationals known as ' Pillar Two'. The OECD has released the Pillar Two model rules (the Global Anti- Base Erosion Proposal, or ' GloBE') to reform international corporate taxation. The Pillar Two model rules provide guidance for a global minimum tax. This guidance lays out a common approach for adopting the global minimum tax and enacting local legislation codifying the provisions that all 142 countries in the Inclusive Framework agreed to by consensus. The EU member states have agreed to adopt these rules in two stages with the first component effective on January 1, 2024, while the second component will be** effective January 1, ~~2023~~ **2025** . ~~While~~ **Non- EU countries have enacted or are expected to enact legislation on a similar timeline. Certain countries in which** we **operate have already enacted legislation to adopt the Pillar Two framework, while several other countries** are ~~still evaluating~~ **expected to also implement similar legislation with varying effective dates in** the ~~impact of~~ **future. When and how this framework is adopted or enacted by** the **various countries in which** ~~provisions of the IRA,~~ we do **business** ~~not believe this legislation~~ will **increase tax complexity** ~~have a material impact on our consolidated financial statements. We will continue to monitor the potential impact of this new legislation as new information~~ and **may increase uncertainty** ~~guidance becomes available. Beginning in 2022, the Tax Cuts~~ and **adversely affect our provision** ~~Jobs Act of 2017 (" TCJA") eliminated the option to deduct research and development expenditures immediately in the year incurred and requires taxpayers to capitalize and amortize such expenditures over five years~~ for **income** ~~research conducted within the United States or 15 years for research conducted abroad pursuant to the Internal Revenue Code. There are currently multiple initiatives for comprehensive tax~~ **taxes** ~~reform underway~~ in ~~other~~ -- **the** ~~key~~ **U. S. and non- U. S.** jurisdictions ~~where we have operations. The Organization for Economic Cooperation and Development, or the OECD / G20, has proposed the introduction of a global minimum tax rate at 15 % and continues to advance proposals for modernizing international tax rules. We continue to monitor countries' progress toward enactment of the OECD' s model rules. During December 2022, the European Union reached agreement on the introduction of a minimum tax directive requiring each member state to enact local legislation. Additionally, South Korea~~

~~became the first country to enact minimum tax rules, which will be effective for fiscal years beginning on or after January 1, 2024. These specific actions did not impact our consolidated financial statements in 2022 but future enacted legislation in this area could have a material effect on us, if enacted~~ . We also assess the impact of various international tax reform proposals and modifications to existing tax treaties in all jurisdictions where we have operations that could result in a material impact on our income taxes. However, if such proposals were enacted, or if modifications were made to certain existing treaties, the consequences could have a materially adverse impact on us, including increasing our tax burden, increasing costs of our tax compliance or otherwise adversely affecting our financial condition, results of operations and cash flows. Various international tax risks could adversely affect our earnings and cash flows. We are subject to international tax risks. We could be subject to double taxation on income related to operations in certain countries that do not have tax treaties with the country of the trading partner. In addition, we may have a higher effective income tax rate than that of other companies in our industry if losses incurred by one operating company are not available to offset the income of an operating company located in another country. Also, distributions of earnings and other payments received from our subsidiaries may be subject to withholding taxes imposed by the countries where they are operating or are incorporated. If these foreign countries do not have income tax treaties with the United States or the countries where our subsidiaries are incorporated, we could be subject to high rates of withholding taxes on these distributions and payments. Additionally, the amount of the credit that we may claim against our U. S. federal income tax for foreign income taxes paid or accrued is subject to many limitations which may significantly restrict our ability to claim a credit for all of the foreign taxes we pay. ~~We currently have reserves established for potential tax liabilities. If these reserves are challenged, and we are unable to successfully defend our tax positions, a negative impact to our cash flows could result.~~ The unpredictability and fluctuation of our quarterly results may adversely affect the trading price of our common stock. Our revenues and results of operations have in the past and will in the future vary from quarter to quarter due to a number of factors, many of which are outside our control and any of which may cause our stock price to fluctuate. The primary factors that may affect us include the following: • the timing of sales of our products and services; • the timing of recognizing revenue and deferred revenue under ~~U. S.~~ GAAP; • changes in our pricing policies or the pricing policies of our competitors; • increases in sales and marketing, product development or administration expenses; • the mix of services provided by us and third- party contractors; • our ability to attain and maintain quality levels for our products; and • costs related to acquisitions of technology or businesses. We can experience quarter- to- quarter fluctuations in our operating results as a result of various factors, some of which are outside our control, such as: • the timing of governmental stimulus programs and academic research budgets; • the time it takes between the date customer orders and deposits are received, systems are shipped and accepted by our customers and full payment is received; • foreign currency exchange rates; • the time it takes for us to receive critical materials to manufacture our products; • general economic conditions, geopolitical tensions and other conditions that impact our global operations; • the time it takes to satisfy local customs requirements and other export / import requirements; • the time it takes for customers to construct or prepare their facilities for our products; and • the time required to obtain governmental licenses. These factors have in the past affected the amount and timing of revenue recognized on sales of our products and receipt of related payments and will likely continue to do so in the future. Accordingly, our operating results in any particular quarter may not necessarily be an indication of any future quarter' s operating performance. Historically we have higher levels of revenue in the fourth quarter of the year compared to the first, second and third quarters, which we believe is primarily the result of our customers' budgeting cycles. Quarter- to- quarter comparisons of our results of operations should not be relied upon as an indication of our future performance. It is likely that in some future quarters, our results of operations may be below the expectations of public market analysts and investors. In this event, the price of our common stock may fall. The ownership of our shares is highly concentrated, which could cause or exacerbate volatility in our share price as well as have significant influence over us. As of February ~~15~~ **6** , ~~2023~~ **2024** , Laukien family members, including our Chairman, President and Chief Executive Officer (" CEO ") Frank Laukien and his brother, Joerg Laukien, owned, in the aggregate, approximately 33 % of our outstanding common stock. We may also repurchase shares in the future, which could further increase the concentration of our share ownership. Because of this reduced liquidity, the trading of relatively small quantities of shares by our shareholders could disproportionately influence the price of those shares in either direction. The price for our shares could, for example, decline precipitously if a large number of our shares were sold on the market without commensurate demand, as compared to a company with greater trading liquidity that could better absorb those sales without adverse impact on its share price. These shareholders may also exercise substantial influence over all matters requiring shareholder approval, including the election of directors and approval of significant corporate transactions. This could have the effect of delaying or preventing a change in control of our company and will make some transactions difficult to accomplish without the support of these shareholders. The loss of key personnel or an inability to attract and retain additional personnel could affect our ability to successfully grow our business. We are highly dependent upon the continued service and performance of our CEO and other members of senior management and key finance, technical, scientific and production personnel, any of whom may cease their employment with us at any time with minimal advance notice. Because the expertise of these individuals is highly specific and takes years to develop, we face intense competition for these individuals from many other companies. The loss of one or more of our key employees may significantly delay or prevent the achievement of our business objectives, and our failure to attract and retain suitably qualified individuals or to adequately plan for succession could have an adverse effect on our ability to implement our business plan. Dividends on our common stock could be reduced or eliminated in the future. In recent years, we have paid dividends on our common stock. In February ~~2023~~ **2024** , we announced that our Board of Directors (" Board ") had declared a quarterly dividend of $ 0. 05 per share that will be payable in March ~~2023~~ **2024** . There is no guarantee that such dividends will continue indefinitely. In the future, our Board may determine to reduce or eliminate our common stock dividend in order to fund investments for growth, repurchase shares or conserve capital resources. Risks Related to Our Dependence on Third Parties If we lose our strategic partners, our marketing and sales efforts could be impaired. A substantial portion of our sales of selected products consists of sales to third parties who incorporate our products into their systems. These third parties are responsible for the marketing and sales of their systems. We have little or no control over their marketing and sales activities or how they use their resources. Our present or future strategic partners may or may not purchase sufficient quantities of products from us or perform appropriate marketing and sales activities. In addition, if we are unable to maintain our relationships with strategic partners, our businesses may suffer. Failures by our present or future strategic partners, or our inability to maintain existing or enter into new arrangements with strategic partners for product distribution, could materially impede the growth of our businesses and our ability to generate sufficient revenue and profits. We face risks related to sales through distributors and other third parties that we do not control, which could harm our business. We sell some products through third party agents, including distributors and value- added resellers. This exposes us to various risks, including competitive pressure, concentration of sales volumes, credit risks, and compliance risks. We may rely on one or a few key distributors for a product or market, and the loss of these distributors could reduce our revenue and net earnings. Distributors may also face financial difficulties, including bankruptcy, which could harm our collection of accounts receivable. Risks related to our use of distributors may reduce sales, increase expenses, and weaken our competitive position. Moreover, violations of the FCPA or similar anti- bribery laws by distributors or other third- party agents could materially and adversely impact our business, reputation and results of operations. Dependence on contract manufacturing may adversely affect our ability to bring products to market and damage our reputation. As part of our efforts to streamline our operations and reduce our operating costs, we outsource certain aspects of our manufacturing processes and continue to evaluate additional outsourcing. If our contract manufacturers fail to perform their obligations in a timely manner or at satisfactory quality levels, our ability to bring products to market and our reputation could suffer. For example, during a market upturn, our contract manufacturers may be unable to meet our demand requirements, which may preclude us from fulfilling our customers' orders on a timely basis. The ability of these manufacturers to perform is largely outside our control. Additionally, changing or replacing our contract manufacturers could cause disruptions or delays. Problems with outsourced manufacturing could result in lower revenues and unexecuted efficiencies, and adversely affect our financial condition and results of operations. Our operations are dependent upon a limited number of suppliers and contract manufacturers. We currently purchase components used in our products from a limited number of outside suppliers. Our reliance on a limited number of suppliers could result in time delays associated with redesigning a product due to an inability to obtain an adequate supply of required components and reduced control over pricing, quality and timely delivery. Any of these factors could adversely affect our revenues and profitability. In particular, our X- ray microanalysis business, which manufactures and sells accessories for electron microscopes, is partially dependent on cooperation from larger manufacturers of electron microscopes. Additionally, our elemental analysis business purchases certain optical detectors from a single supplier, PerkinElmer, Inc., the sole supplier of these detector components. BSI CALID purchases detectors and power supplies from sole or limited source suppliers and its focal plane array detectors from a single supplier, Lockheed Martin Corporation. Similarly, BSI BioSpin obtains various components from sole or limited source suppliers and BEST obtains various raw materials and uses key production equipment from sole or limited source suppliers or contract manufacturers. There are limited, if any, available alternatives to these suppliers. The existence of shortages of these components or the failure of delivery with regard to these components could have a material adverse effect upon our revenues and margins. In addition, price increases from these suppliers or contract manufacturers could have a material adverse effect upon our gross margins. Because of the scarcity of some components, we may be unable to obtain an adequate supply of components, or we may be required to pay higher prices or to purchase components of lesser quality. Any delay or interruption in the supply of these or other components could impair our ability to manufacture and deliver our products, harm our reputation and cause a reduction in our revenues. In addition, any increase in the cost of the components that we use in our products could make our products less competitive and decrease our gross profits. We may not be able to obtain sufficient quantities of required components on the same or substantially the same terms. Additionally, consolidation among our suppliers could result in other sole source suppliers for us in the future. Other events that could affect our ability to source materials, manufacture or distribute our products include fire, natural disaster or extreme weather or a pandemic and the impact of those events on our and our suppliers' and contract manufacturers' operations. Supply shortages and increasing prices of raw materials could adversely affect our gross profit. The last few years have seen periodic supply shortages and sharp increases in the prices for various raw materials, in part due to high demand from developing countries, which have been exacerbated by the ~~COVID- 19 pandemic, the~~ war ~~in~~ **between Russia and** Ukraine ~~and~~ **,** on- going conflicts between the United States and China and other geopolitical tensions. We rely on some of these materials for the production of our products. For example, in our superconducting magnet production, both for the horizontal and vertical magnet series, we rely on the availability of copper, steel and other metallic raw materials as well as niobium titanium for the production of traditional low- temperature superconducting magnets, wires and devices. Higher prices for these commodities will increase the production cost of superconducting wires and superconducting magnets and may adversely affect gross profits. The prices of copper and certain other raw materials used for superconductors have increased significantly over the last decade. Since copper is a main constituent of low temperature superconductors, this may affect the price of superconducting wire. This type of increase would have an immediate effect on the production costs of superconducting magnets and may negatively affect the profit margins for those products. In order to operate superconducting magnets, we and our customers rely on liquid helium. Helium is controlled by the Federal Helium Reserve and is subject to price changes. Shortages of liquid helium associated with federal price controls or depleted natural reserves could drive increases in helium pricing and have an adverse impact on producing and operating our superconducting magnets, which may negatively impact the profit margins of those products. Risks Related to Our Intellectual Property Rights Our success depends on our ability to operate without infringing or misappropriating the proprietary rights of others. Our commercial success depends on avoiding the infringement of other parties' patents and proprietary rights as well as avoiding the breach of any licenses relating to our technologies and products. Given that there may be patents of which we are unaware, particularly in the United States where patent applications are confidential, avoidance of patent infringement may be difficult. Various third parties hold patents which may relate to our technology, and we may be found in the future to infringe these or other patents or proprietary rights of third parties, either with products we are currently marketing or developing or with new products which we may develop in the future. If a third- party holding rights under a patent successfully asserts an infringement claim with respect to any of our current or future products, we may be prevented from manufacturing or marketing our infringing product in the country or countries covered by the patent we infringe, unless we can obtain a license from the patent holder. We may not be able to obtain such a license on commercially reasonable terms, if at all, especially if the patent holder is a competitor. In addition, even if we can obtain a license, it may be non- exclusive, which will permit others to practice the same technology licensed to us. We also may be required to pay substantial damages to the patent holder in the event of infringement. Under some circumstances in the United States these damages could include damages equal to triple the actual damages the patent holder incurs. If we have supplied infringing products to third parties for marketing by them or licensed third parties to manufacture, use or market infringing products, we may be obligated to indemnify these third parties for any damages they may be required to pay to the patent holder and for any losses the third parties may sustain themselves as the result of lost sales or license payments they are required to make to the patent holder. Any successful infringement action brought against us may also adversely affect marketing of the infringing product in other markets not covered by the infringement action, as well as our marketing of other products based on similar technology. Furthermore, we will suffer adverse consequences from a successful infringement action against us even if the action is subsequently reversed on appeal, nullified through another action or resolved by settlement with the patent holder. The damages or other remedies awarded, if any, may be significant. As a result, any successful infringement action against us may harm our business. If we are unable to effectively protect our intellectual property, third parties may use our technology, which would impair our ability to compete in our markets. Our continued success will depend in significant part on our ability to obtain and maintain meaningful patent protection for our products throughout the world. We rely on patents to protect a significant part of our intellectual property and to enhance our competitive position. However, our presently pending or future patent applications may not issue as patents, and any patent previously issued to us may be challenged, invalidated, held unenforceable or circumvented. Furthermore, the claims in patents which have been issued, or which may be issued to us in the future, may not be sufficiently broad to prevent third parties from producing competing products similar to our products. In addition, the laws of various foreign countries in which we compete may not protect our intellectual property to the same extent as do the laws of the United States. Failure to obtain adequate patent protection for our proprietary technology could materially impair our ability to be commercially competitive. In addition to patent protection, we also rely on the protection of trade secrets, know- how and confidential and proprietary information. To maintain the confidentiality of trade secrets and proprietary information, we generally seek to enter into confidentiality agreements with our employees, consultants and strategic partners upon the commencement of a relationship with us. However, we may not obtain these agreements in all circumstances. In the event of unauthorized use or disclosure of this information, these agreements, even if obtained, may not provide meaningful protection for our trade secrets or other confidential information. In addition, adequate remedies may not exist in the event of unauthorized use or disclosure of this information. The loss or exposure of our trade secrets and other proprietary information would impair our competitive advantages and could have a material adverse effect on our operating results, financial condition and future growth prospects. Furthermore, others may have, or may in the future independently develop, substantially similar or superior know- how and technology. We may be involved in lawsuits to protect or enforce our patents that are brought by us which could be expensive and time consuming and, if determined adversely, could adversely affect our patent position. In order to protect or enforce our patent rights, we may initiate patent litigation against third parties, and we may be similarly sued by others. We may also become subject to interference proceedings conducted in the patent and trademark offices of various countries to determine the priority of inventions. The defense and prosecution, if necessary, of intellectual property suits, interference proceedings and related legal and administrative proceedings is costly and diverts our technical and management personnel from their normal responsibilities. We may not prevail in any of these suits. An adverse determination of any litigation or defense proceedings could put our patents at risk of being invalidated or interpreted narrowly and could put our patent applications at risk of not issuing. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. In addition, during the course of this kind of litigation, there could be public announcements of the results of hearings, motions or other interim proceedings or developments in the litigation. If securities analysts or investors perceive these results to be negative, it could have a substantial negative effect on the trading price of our common stock. ~~On~~ **In** September ~~25,~~ 2019, **Luxendo GmbH (“ Luxendo ”)** ~~in a complaint filed in the District Court of Düsseldorf~~ , **a subsidiary of Bruker Corporation, was sued in** Germany ~~,~~ **by** Carl Zeiss Microscopy GmbH, a subsidiary of Carl Zeiss AG (**“** Zeiss **”**) ~~, sued Luxendo GmbH (Luxendo), a subsidiary of Bruker Corporation~~ , for infringement of a registered German utility model ~~patent licensed to Zeiss pertaining to one specific Luxendo product category~~ . **After** ~~Luxendo defended against these~~ -- **the utility model was canceled** ~~claims and on December 14, 2021, obtained a decision~~ by the German Patent and Trademark Office **in** ~~canceling the utility model. Zeiss' appeal against the cancellation was unsuccessful and on December 19, 2022~~ **2021** , Zeiss withdrew its ~~complaint. Luxendo is entitled to reimbursement of its statutory fees in the~~ infringement **action at** ~~case as well as in~~ the ~~cancellation notice~~ **end of 2022 and the proceedings were terminated** . ~~A~~ **However, a** parallel European patent application, ~~from which~~ **a family member of** the utility model ~~was derived~~ , is **still** pending in the European Patent Office (**“** EPO **”**). ~~Luxendo filed third- party observations~~ **The Company is closely monitoring progress** in the ~~proceedings concerning the~~ **granting procedure and does not believe that a** grant ~~of the patent application. On March 25, 2022, the EPO communicated to the applicant that Luxendo’ s observations had merit and confirmed its position on October 14, 2022. A hearing regarding the EPO’ s concerns about patentability~~ is **imminent** ~~scheduled for the second quarter of 2023~~ . ~~Luxendo~~ **The Company** is presently unable to predict the ~~outcome of the~~ EPO ~~’~~ **'** s ~~evaluation of~~ **final decision on** the patent application. Risks Related to Legal, Regulatory and

Compliance Our manufacture and sale of products could lead to product liability claims for which we could have substantial liability. The manufacture and sale of our products expose us to product liability claims if any of our products cause injury or are found otherwise unsuitable or defective as a consequence of product design, manufacturing, marketing, sale or customer use. In particular, if one of our CBRNE detection products malfunctions, this could lead to civilian or military casualties in a time of unrest, exposing us to increased potential for high- profile liability. If our CBRNE detection products malfunction by generating a false- positive to a potential threat, we could be exposed to liabilities associated with actions taken that otherwise would not have been required. Additionally, the nuclear magnetic resonance, research magnetic resonance imaging, Fourier transform mass spectrometry and certain electron paramagnetic resonance magnets of BSI BioSpin utilize high magnet fields and cryogenics to operate at approximately 4 Kelvin, the temperature of liquid helium. There is an inherent risk of potential product liability due to the existence of these high magnetic fields, associated stray fields outside the magnet, and the handling of the cryogens associated with superconducting magnets. In addition, our MALDI Biotyper product has an IVD- CE mark and U. S. FDA approval and is used for the identification of microorganisms. Misidentification or a false- negative of certain viruses, bacteria, yeasts or fungi could lead to inappropriate treatment for patients and could expose us to product liability claims. A successful product liability claim brought against us in excess of, or outside the coverage of, our insurance coverage could have a material adverse effect on our business, financial condition and results of operations. We may not be able to maintain product liability insurance on acceptable terms, if at all, and insurance may not provide adequate coverage against potential liabilities. We are subject to environmental laws and regulations, which may impose significant compliance or other costs on us. Our manufacturing, product development and research and development operations and processes involve the controlled use of certain hazardous materials. In addition, we own and / or lease a number of facilities, some of which have been in operation for many decades, where we or others may have used substances or generated and disposed of wastes which are considered hazardous or may be considered hazardous in the future. We also have acquired various companies which historically may have used certain hazardous materials **,** and which may have owned and / or leased facilities at which hazardous materials have been used. For all of these reasons, we are subject to federal, state, foreign, and local laws and regulations governing the use, manufacture, storage, transportation, handling, treatment, remediation, and disposal of hazardous materials and certain waste products. We have potential liability under these laws and regulations with respect to the remediation of past contamination in certain of the facilities we now own or lease. Additionally, in the future our facilities and the disposal sites owned by others to which we send or sent waste, may be identified as contaminated and require remediation. Accordingly, we may become subject to additional compliance costs or environmental liabilities which may be significant and could materially harm our results of operations or financial condition. Specifically, we use controlled hazardous and radioactive materials in our business and generate wastes that are regulated as hazardous wastes under U. S. federal, and Massachusetts, California, New Jersey, Washington and Wisconsin state environmental and atomic energy regulatory laws and under equivalent provisions of law in those and other jurisdictions in which our research and manufacturing facilities are located. Our use of these substances and materials is subject to stringent, and periodically changing, regulation that can impose costly compliance obligations on us and has the potential to adversely affect our manufacturing activities. The risk of accidental contamination or injury from these materials cannot be completely eliminated. If an accident with these substances occurs, we could be held liable for any damages that result, in addition to incurring clean- up costs and liabilities, which can be substantial. Additionally, an accident could damage our research and manufacturing facilities resulting in delays and increased costs. We are subject to existing and potential additional regulation and government inquiry, which can impose burdens on our operations and narrow the markets for our products. We are subject, both directly and indirectly, to the adverse impact of existing and potential future government regulation of our operations and markets. For example, the ~~exportation~~ **export** of our products is subject to U. S. and non- U. S. export control, sanctions, customs, import and anti- boycott laws and regulations, including, as applicable, the International Traffic in Arms Regulations, the Export Administration Regulations and the sanctions laws, regulations and executive orders administered and enforced by the U. S. Department of the Treasury' s Office of Foreign Assets Control, and other laws and regulations adopted by the governments or agencies of other countries relating to the same subject matter as the U. S. laws and regulations described above. The failure to satisfy export control criteria or obtain necessary clearances could delay or prevent shipment of products, which could adversely affect our revenues and profitability. Failure by ~~us~~ **the Company** , our employees or others working on our behalf to comply with these laws and regulations could result in administrative, civil or criminal liabilities, including suspension, debarment from bidding for or performing government contracts, or suspension of our export privileges, which could have a material adverse effect on us. We frequently team with international subcontractors and suppliers who are also exposed to similar risks. In some cases, compliance with the laws and regulations of one country could violate the laws and regulations of another country. Violations of these laws and regulations could materially adversely affect our brand, international growth efforts and business. In addition, as a result of our international operations, we are subject to compliance with various laws and regulations, including the FCPA and local anti- bribery laws in the jurisdictions in which we do business (including some higher risk countries according to the Transparency International Corruption Index), which generally prohibit companies and their intermediaries or agents from engaging in bribery or making improper payments to foreign officials or their agents. The FCPA also requires proper record keeping and characterization of such payments in our reports filed with the SEC. Despite maintaining policies and procedures that require our employees to comply with these laws and our standards of ethical conduct, we cannot ensure that these policies and procedures will always protect us from intentional, reckless or negligent acts committed by our employees or third- party agents. Moreover, the life sciences industry, which is the market for our principal products, has historically been heavily regulated. Given the evolving nature of this industry, legislative bodies or regulatory authorities may adopt additional regulation that adversely affects our market opportunities. Our business is also directly affected by a wide variety of government regulations applicable to business enterprises generally and to companies operating in the life sciences industry in particular. Our products are subject to the FDA' s requirements for electronic radiation emitting products, which include requirements related to record- keeping and reporting; labeling; notification; product repairs, replacements, and refunds; importation; and performance standards. In addition, our clinical products are subject to regulation as medical devices in the United States by the FDA and by similar regulatory bodies in other countries where such products are sold. These regulations govern a wide variety of product related activities, from quality management, design, development, and testing to labeling, manufacturing, complaint handling, reporting, promotion, sales and distribution. Compliance with applicable regulatory requirements is subject to continual review and is monitored rigorously through periodic inspections by the FDA and other regulatory authorities, which may result in written inspectional observations. The FDA and comparable foreign regulatory authorities also monitor product promotion and marketing materials and activities. If we or any of our suppliers or distributors fail to comply with FDA or other applicable regulatory requirements, or are perceived to potentially have failed to comply, we may face, among other things, warning letters; adverse publicity affecting both us and our customers; investigations or notices of non- compliance, fines, injunctions, and civil **or criminal** penalties; import or export restrictions; partial suspensions or total shutdown of production facilities or the imposition of operating restrictions; increased difficulty in obtaining required FDA clearances or approvals or foreign equivalents; seizures or recalls of our products or those of our customers; or the inability to sell such products. Any such FDA or comparable foreign regulatory actions could disrupt our business and operations, lead to significant remedial costs and have a material adverse impact on our financial position and results of operations. In addition, negative publicity and product liability claims resulting from any adverse regulatory action could have a material, adverse effect on our financial condition and results of operations. Further, the replacement of the European Union IVD Directive by the IVD Regulation (EU) 2017 / 746 in May 2022 has resulted in a stricter regime on manufacturers of IVDs and under transitional arrangements our products currently approved under the Directive must be recertified under the Regulation by May ~~2024~~ **2025** . We have been, are, and expect to be in the future, subject to inquiries from the government agencies that enforce these regulations, including the U. S. Department of State, the U. S. Department of Commerce, the U. S. FDA, the U. S. Internal Revenue Service, the U. S. Department of Labor, the U. S. Department of Homeland Security, the U. S. Department of Justice, the SEC, the Federal Trade Commission, U. S. Customs and Border Protection and the U. S. Department of Defense, among others, as well as from state or foreign governments and their departments and agencies. As a result, from time to time, the attention of our management and other resources may be diverted to attend to these inquiries. In addition, failure to comply with these regulations or obtain or maintain necessary permits and licenses could result in a variety of fines or other censures or an interruption in our business operations which may have a negative impact on our ability to generate revenues and could adversely affect our financial condition and results of operations. Failure to maintain effective internal controls may cause a loss of investor confidence in the reliability of our financial statements or cause us to delay filing our periodic reports with the SEC and adversely affect our stock price. The SEC, as directed by Section 404 of the Sarbanes- Oxley Act of 2002, adopted rules requiring public companies to include a report of management on internal control over financial reporting in their annual reports on Form 10- K that contain an assessment by management of the effectiveness of our internal control over financial reporting. In addition, our independent registered public accounting firm must attest to and report on the effectiveness of our internal control over financial reporting. Although we test our internal control over financial reporting in order to ensure compliance with the Section 404 requirements, our failure to maintain adequate internal controls over financial reporting could result in an adverse reaction in the financial marketplace due to a loss of investor confidence in the reliability of our financial statements or a delay in our ability to timely file our periodic reports with the SEC, which ultimately could negatively impact our stock price. Decentralization necessarily places significant control and decision- making powers in the hands of local management, which presents certain risks, including the risk that we may be slower to detect or react to compliance- related matters and that " company- wide " business initiatives may be more challenging or costly to implement, and the risk of noncompliance or failures higher than they may be in a more centralized operating environment. In addition, key business group resources and our corporate functions, which are leanly staffed but responsible for supporting our decentralized operations, may also not be able to detect or resolve financial, operational, and compliance matters on a timely basis. Our failure to adapt our financial, operational and compliance controls and systems to effectively manage our decentralized business and comply with our obligations as a public company could materially and adversely affect our business, financial condition or results of operations. General Risks Factors If we are not able to successfully integrate the businesses we acquire through mergers, acquisitions or strategic alliances, we may not be able to realize all of the cost savings and other benefits that we expect to result from the transactions and our financial results may be different than expected. Our strategy includes expanding our technology base and product offerings through selected mergers, acquisitions and strategic alliances. For example, from January 1, ~~2020~~ **2021 ,** to December 31, ~~2022~~ **2023** , we ~~have~~ acquired ~~15~~ **21** businesses to expand our technologies and product offerings. Successful integration of the businesses we acquire involves a number of risks, including, among others, risks related to: • coordinating or consolidating geographically separate organizations and integrating personnel with different business backgrounds and corporate cultures; • integrating previously autonomous departments in sales and marketing, distribution, accounting and administrative functions; • integrating financial information and management systems; • the pace of our acquisition activity and the related diversion of already limited resources and management time; • disruption of our ongoing business; • potential impairment of relationships with customers as a result of changes in management or otherwise arising out of such transactions; and • retention of key employees of the acquired businesses within the first one to two years after the acquisition, including the risk that they may compete with us subsequently. We may have difficulty developing, manufacturing and marketing the products of a newly acquired company or business in a way that enhances the performance of our combined businesses or product lines. As a result, we may not realize the value from expected synergies. Acquisitions have resulted, and may in the future result, in unexpected significant costs and expenses, including disputes over contingent consideration and complicated accounting for complex transaction structures. In the future, we may be required to record charges to earnings during the period if we determine there is an impairment of goodwill or intangible assets, up to the full amount of the remaining carrying value of the assets. We generally assume the liabilities of businesses we acquire, which could include liability for an acquired business' violation of law that occurred before we acquired it. **We frequently** ~~In addition, we have historically acquired~~ - **acquire** smaller, privately held companies that may not have ~~strong~~ **the same** ~~cultures~~ - **culture** of ~~legal~~ compliance or the ~~robust financial~~ **same level of internal** ~~controls~~ - **control** of a larger, publicly traded company **. Any failure** ~~, and if we fail~~ to implement adequate training, controls, and monitoring of ~~the~~ **any** acquired ~~companies~~ **company** ~~, we~~ could ~~also~~ **cause us to** be liable for post- acquisition legal or accounting violations. Other companies may have difficulty acquiring us, even if doing so would benefit our shareholders, due to provisions under our corporate charter and bylaws, as well as Delaware law. Provisions in our restated certificate of incorporation, and our amended and restated bylaws, as well as Delaware law could make it more difficult for other companies to acquire us, even if doing so would benefit our shareholders. Our restated certificate of incorporation, and amended and restated bylaws contain the following provisions, among others, which may inhibit an acquisition of our company by a third party: • a staggered Board of Directors, where shareholders elect only a minority of the board each year; • advance notification procedures for matters to be brought before shareholder meetings; • a limitation on who may call shareholder meetings; and • the ability of our Board of Directors to issue up to 5, 000, 000 shares of preferred stock without a shareholder vote.