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

The following are important factors we have identified that could affect our future results and an investment in our securities. Although the risks are organized by headings and each risk is described separately, many of the risks are interrelated. You should not interpret the disclosure of any risk factor to imply that the risk has not already materialized. While we believe we have identified and discussed below the key risk factors affecting our business, there may be additional risks and uncertainties that are not presently known or that are not currently believed to be significant that may adversely affect our business, prospects, financial condition, results of operations or cash flows in the future. In addition, from time to time we provide information, including information contained in this Annual Report on Form 10- K, that contains forward-looking statements concerning, among other things, projected financial performance, total addressable market, market and industry sector growth, product development and commercialization or other aspects of future operations. Such statements are based on the assumptions and expectations of our management at the time such statements are made. We caution investors that our performance and any forward- looking statements are subject to risks and uncertainties, including but not limited to, the following: **Risks Associated** with the Proposed Transaction with Synopsys The proposed transaction with Synopsys may be delayed or not occur at all for a variety of reasons, including that the Merger Agreement is terminated, and the failure to complete the Merger could adversely affect our business, results of operations, financial condition, and the market price of our common stock. On January 15, 2024, we entered into the Merger Agreement with Synopsys and Merger Sub, pursuant to which Merger Sub will merge with and into Ansys with Ansys surviving the Merger as a wholly owned subsidiary of Synopsys. Completion of the Merger is subject to customary closing conditions, including (1) the adoption of the Merger Agreement by a majority of the holders of the outstanding shares of our common stock, (2) the expiration or early termination of the applicable waiting period under the Hart- Scott- Rodino Antitrust Improvements Act of 1976, as amended, and the approval of the Merger under certain other antitrust and foreign investment regimes, (3) the absence of any order, injunction or law prohibiting the Merger, (4) the effectiveness of the registration statement of Synopsys pursuant to which shares of Synopsys common stock to be issued in connection with the Merger will be registered with the SEC, (5) the shares of Synopsys common stock to be issued in connection with the Merger being approved for listing on Nasdaq, (6) the accuracy of the other party's representations and warranties, subject to certain standards set forth in the Merger Agreement, (7) compliance in all material respects by the other party with its obligations under the Merger Agreement, and (8) the absence of a continuing material adverse effect with respect to each of Ansys and Synopsys. Therefore, there can be no assurance that the Merger will be completed in the expected timeframe (first half of 2025), or at all. The Merger Agreement may be terminated under certain circumstances, including that either party may have the right to terminate if the Merger is not completed by January 15, 2025, which may be extended to January 15, 2026 as provided in the Merger Agreement. Upon termination of the Merger Agreement, (A) Synopsys, under specified circumstances, including termination following a permanent injunction arising under certain antitrust or foreign investment laws, will be required to pay us a termination fee of \$1,500.0 million; and (B) we, under specified circumstances, including our termination of the Merger Agreement to accept and enter into a definitive agreement with respect to a Superior Proposal (as defined in the Merger Agreement) or Synopsys' termination upon the change by our Board of Directors of its recommendation in favor of the Merger, will be required to pay Synopsys a termination fee of \$ 950. 0 million. Failure to complete the Merger within the expected timeframe or at all could adversely affect our business and the market price of our common stock in a number of ways, including: • the market price of our common stock may decline to the extent that the current market price reflects an assumption that the Merger will be consummated; • if the Merger Agreement is terminated under certain circumstances specified in the Merger Agreement, we would be required to pay a termination fee of \$ 950. 0 million; • we have incurred, and will continue to incur, significant expenses for professional services in connection with the Merger for which we will have received little or no benefit if the Merger is not consummated; and we may experience negative publicity and / or reactions from our investors, employees, customers, channel partners, and other business partners. Additionally, as Synopsys common stock will be a component of the merger consideration our stockholders will receive in the Merger, our stock price may be adversely impacted by a decline in Synopsys' stock price and any adverse developments in Synopsys' business outlook. Synopsys' stock price changes may result from a variety of factors, such as changes in its business operations and outlook, changes in general market and economic conditions, and regulatory considerations. These factors are beyond our control. Also, because the number of shares of Synopsys common stock issuable in connection with the Merger Agreement in respect to one share of Ansys common stock is based on a fixed exchange ratio and the market price of Synopsys common stock may fluctuate, our stockholders cannot be sure of the market value of the stock consideration they will receive in exchange for their shares of our common stock in connection with the Merger. Completion of the proposed Merger is subject to the satisfaction or waiver of closing conditions contained in the Merger Agreement, including certain regulatory approvals which may not be received, may take longer than expected or the receipt of which may impose conditions that are not presently anticipated or that cannot be met, and if these closing conditions are not satisfied or waived, the proposed Merger will not be completed. Various consents, clearances, approvals, authorizations and declarations of non- objection, or expiration of waiting periods (or extensions thereof), from certain regulatory and governmental authorities in the United States, the European Union and certain other jurisdictions are included in the Merger Agreement as conditions to completing the proposed Merger.

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Regulatory and governmental entities may impose conditions on their respective approvals, in which case lengthy
negotiations may ensue among such regulatory or governmental entities, Synopsys and Ansys. Such conditions, any such
negotiations and the process of obtaining such regulatory approvals, consents or clearances could have the effect of
delaying or preventing consummation of the proposed Merger. Subject to the terms of the Merger Agreement, we have
agreed to use our reasonable best efforts to take all actions necessary to consummate the Merger, including cooperating
to obtain the regulatory approvals necessary to complete the Merger. Nonetheless, certain conditions to the completion of
the pending Merger are not within our or Synopsys' control, and we cannot predict when or if these conditions will be
satisfied (or waived, as applicable). There can be no assurance that all required approvals will be obtained or that all
closing conditions will otherwise be satisfied (or waived, if applicable), and, if all required approvals are obtained and all
closing conditions are satisfied (or waived, if applicable), we can provide no assurance as to the terms, conditions and
timing of such approvals or that the pending Merger will be completed in a timely manner or at all. Even if regulatory
approvals are obtained, it is possible conditions will be imposed that could result in a material delay in, or the
abandonment of, the pending Merger or otherwise have an adverse effect on Ansys. Efforts to complete the Merger could
disrupt our relationships with third parties and employees, divert management's attention, or result in negative
publicity or legal proceedings, any of which could negatively impact our operating results and ongoing business. We have
expended, and continue to expend, significant management time and resources in an effort to complete the Merger,
which may have a negative impact on our ongoing business and operations. Uncertainty regarding the outcome of the
Merger and our future could disrupt our business relationships with our existing and potential customers, channel
partners, service providers and other business partners, who may attempt to negotiate changes in existing business
relationships or consider entering into business relationships with parties other than Ansys. Uncertainty regarding the
outcome of the Merger could also adversely affect our ability to recruit and retain key personnel and other employees.
The pendency of the Merger may also result in negative publicity and a negative impression of us in the financial
markets, and may lead to litigation against us and our directors and officers. Such litigation would be distracting to
management and, may, in the future, require us to incur significant costs. Such litigation could result in the Merger being
delayed and / or enjoined by a court of competent jurisdiction, which could prevent the Merger from being completed.
The occurrence of any of these events individually or in combination could have a material and adverse effect on our
business, financial condition and results of operations. The Merger Agreement contains provisions that limit our ability
to pursue alternative transactions to the Merger which could discourage a potential competing acquirer from making an
alternative transaction proposal. The Merger Agreement contains provisions that preclude us from soliciting proposals
relating to alternative transactions or entering into discussions or negotiations or providing non-public information in
connection with any proposal for an alternative transaction from a third party, subject to certain exceptions to permit
our Board of Directors to comply with its fiduciary obligations. We have further agreed to cease and cause to be
terminated any existing discussions or negotiations, if any, with regard to alternative transactions. These prohibitions
could discourage a potential third- party acquirer or merger partner from making an alternative transaction proposal.
Additionally, if the Merger Agreement is terminated and we determine to seek another business combination, we may
not be able to negotiate a transaction with another party on terms comparable to, or better than, the terms of the Merger
Agreement, While the Merger Agreement is in effect, we are subject to restrictions on our business activities. The Merger
Agreement contains customary representations, warranties and covenants, including, among others, covenants
regarding the conduct of our business during the pendency of the transactions contemplated by the Merger Agreement.
These restrictions could prevent us from pursuing attractive business opportunities that may arise prior to the
consummation of the Merger. Although we may be able to pursue such activities with Synopsys' consent, there is no
guarantee that Synopsys will provide us with the necessary consent. Global Operational Risks Adverse economic and
geopolitical conditions have impacted, in the past and may continue to impact, our operations and financial performance. Our
operations and performance depend significantly on global macroeconomic, specific foreign country and U. S. domestic
economic conditions. Over the past year, global Global inflation and interest rates have increased meaningfully continued to be
elevated throughout 2023. A deterioration in the macroeconomic environment, including the impact of high inflation, may
result in decreased demand for our products and services, constrained credit and liquidity, reduced government spending and
volatility in equity and foreign exchange markets. In addition, significant downturns and volatility in the global economy expose
us to impairments of certain assets if their values deteriorate. Tighter credit due to economic conditions may diminish our future
borrowing ability and increase borrowing costs under our existing credit facilities. Customers' ability to pay for our products and
services may also be impaired, which could lead to an increase in our allowance for doubtful accounts and write- offs of
accounts receivable. Furthermore, escalating global tensions, including due to the deterioration of the diplomatic and political
relationships between the United States and other countries where we conduct business, including such as China, and the
ongoing global volatility due to wars and conflict conflicts (such as those between Russia and Ukraine and / or Israel and
Hamas), could adversely affect our future operations and lead to a decline in financial performance. A significant portion of our
business comes from outside the United States and our customers supply a wide array of goods and services to most of the
world's major economic regions. International revenue represented 53.4 %, 54.9 %, and 54.5 % and 53.8 % of our total
revenue for the years ended December 31, 2023, 2022, and 2021 and 2020, respectively. In fiscal year 2022-2023, our largest
geographic revenue bases were the United States, Japan and Germany and Japan. When the significant economies in which we
do business deteriorate or suffer a period of uncertainty, our business and financial performance may be impacted through
reduced customer and government spending, changes in purchasing cycles or timing and reduced access to credit for our
customers, among other events-factors. Furthermore, customer spending levels in any foreign jurisdiction may be adversely
impacted by changes in domestic policies, including tax and trade policies. A substantial portion of our license and maintenance
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revenue is derived from annual subscription lease and maintenance contracts, which typically have a high rate of customer
renewal. When the rate of renewal for these contracts is adversely affected by economic or other factors, our subscription lease
license and maintenance growth is adversely affected. We are subject to trade restrictions that could impact our ability to sell to
customers and result in liabilities for violations. Due to the global nature of our business, we are subject to domestic and
international trade protection laws, policies, sanctions and other regulatory requirements affecting trade and investment. For
example, we are subject to import and export restrictions and regulations that prohibit the shipment or provision of certain
products and services to certain countries, regions and persons targeted by the United States and certain end uses identified by
the United States, including the Export Administration Regulations administered by the U. S. Department of Commerce's
Bureau of Industry and Security (BIS), economic and trade sanctions administered by the U. S. Department of Treasury
Department's Office of Foreign Assets Control (OFAC) and International Traffic in Arms Regulations (ITAR) administered by
the Department of State's Directorate of Defense Trade Controls (DDTC). BIS continues to expand its export control
restrictions and set, including with respect to the export to China of certain technologies, impose new export licensing
requirements, and require enhanced denied party screening processes. The These additional restrictions have limited
and could continue to limit our ability to sell and deliver products and services to certain customers, including to entities
performing research and development and certain controlled activities in China. Export control restrictions and
enhanced screening processes have led to, and, in the future may continue to lead to, elongated transaction cycles with
certain customers. In addition, export control restrictions have resulted, and may continue to result, in reduced sales and
or delays in our ability to deliver products and services to certain prospects, adversely affecting our business and
consolidated financial statements. In certain cases, when an export license may be required to deliver products and
services to certain customers, the receipt of licenses to export to certain countries, including China, is not guaranteed
dependent on many factors, and, in the absence of a license or applicable license exception, these export control restrictions
<del>could limit</del> our ability to sell and deliver products and services to certain customers may be negatively impacted and our ability
to sell products and services to customers in the future. Additionally, BIS continues to add more companies, including existing
customers, to its Entity List and Unverified List, and OFAC continues to increase the number of companies subject to its
sanctions, which could continues to limit the companies with which we can do business. In addition, restrictions implemented
by OFAC could limit our ability to sell to, or transact with, restricted individuals, entities or countries. Adding companies as
restricted parties and subjecting companies to heightened export control restrictions may additionally encourage those
companies to seek substitute products from competitors whose products are not subject to these restrictions or to develop their
own products. We cannot predict whether or when any changes will be made that climinate or decrease these limitations on our
ability to sell products and provide services to these customers. Additionally, other existing Existing and prospective customers
have been and may continue to be added as restricted parties and / or be subjected to trade restrictions and additional end uses,
products or services have been and may continue to be identified for further restrictions. . . and such Such actions have
resulted in, and may continue to result in, increases to our operating costs and time to market. Additional trade
restrictions on our business by the United States, China or other countries may also result in other indirect impacts that
cannot be quantified , including the imposition of additional trade restrictions on our business by the United States, China or
other countries. Restrictions on our ability to sell and ship to customers could have a significant adverse effect on our business
and consolidated financial statements. Our products could also be delivered to restricted parties by third parties, including our
channel partners. We take measures to confirm that our channel partners comply with all applicable trade restrictions, but any
failure by channel partners to comply with such restrictions could have negative consequences for us. Violators of trade
restrictions or restricted end uses may be subject to significant penalties, which may include considerable monetary fines.
criminal proceedings against them and their officers and employees, a denial of export privileges and suspension or debarment
from selling products or services to the federal government. Any such penalties could have a significant adverse effect on our
business and consolidated financial statements. In addition, the political and media scrutiny surrounding any governmental
investigation could cause significant expense and reputational harm and distract senior executives from managing normal day-
to-day operations. If we are unable to attract and retain key talent, our business could be adversely affected. Due to the highly
technical nature of our products and services, our continued success depends on our ability to attract and retain particular
employees with specialized skill sets. These skilled roles have been and are expected to continue to be challenging to fill given
the recent job market dynamics, including wage inflation and the general labor market shortage, which has caused an increase in
competition for talent within the technology industry. Additionally, our talent has been, and continues to be, the subject of
recruitment by our competitors and we may incur significant cost to attract and retain our skilled employees. Remote and hybrid
options remain the primary means of work. Our working environment options may adversely affect our ability to recruit and
retain employees who prefer a different working environment. Furthermore, operating in a remote and hybrid environment could
have a negative impact on our corporate culture which could negatively affect the workforce and decrease retention rates. While
we have non- competition and non- solicitation agreements with many of our current employees, the enforceability of these
agreements may be limited by legislation and by the courts. In addition, our success depends upon the continued service of our
senior executives and our key technical and sales employees. Most of these individuals could terminate their relationship with us
at any time. The loss of any of them for which there has not been adequate knowledge- sharing and transfer might significantly
delay or prevent the achievement of our business objectives and could materially harm our business and customer relationships.
While we have historically recruited globally for positions in the United States, in recent years our ability to do so has been
curbed by more restrictive domestic immigration laws. If the immigration laws become even stricter or the processing of
immigration requests becomes even more cumbersome or less efficient, or if we have less success in recruiting and retaining key
personnel, our business, reputation and operating results could be materially and adversely affected. Failure to comply with
global data privacy laws could give rise to regulatory enforcement action, monetary penalties, loss of the ability to do business
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in certain jurisdictions or reputational harm. We are subject to global data privacy laws and regulations addressing the processing of personal data. As the global focus on data privacy regulation continues to increase, standards governing the processing of personal data continue to become more strict, conflicting and numerous. As a result, potential risks may intensify as our global business pursues data privacy compliance. The General Data Protection Regulation (European Union), the Data Protection Act (United Kingdom), the Personal Information Protection and Electronic Documents Act (Canada), the Personal Information Protection Law (China), the Law Concerning the Protection of Personal Information (Japan), the Personal Information Protection Act (South Korea), many state and federal privacy laws within the United States and other similar global laws in locations in which we do business (collectively," Privacy Laws") govern our global data privacy practices. Additionally, Privacy Laws impose abundant compliance obligations related to our processing of personal data arising from: (i) the delivery of our products and services to our customers; and (ii) our business operations involving employee data. Compliance with Privacy Laws has and will continue to require the deployment of substantial resources and increased costs. As the global data privacy landscape continues to change, including: (i) new and varying restrictions on the transfer of personal data across borders; (ii) the growing list of privacy rights afforded to individuals of certain jurisdictions; (iii) data minimization requirements; and (iv) the growing number of governmental agencies dedicated to the preservation of data privacy rights, we may be required to make significant changes to our software applications or business operations. Such changes may increase the cost and complexity of delivering our products and services in some markets, require an investment in additional resources or tools to manage our data privacy compliance, give rise to operational interruption in the performance of services for customers or adversely affect the internal processing of employee information. Failure to comply with Privacy Laws may lead to regulatory enforcement actions, loss of the ability to do business in certain jurisdictions or inquiries and investigations into our activities; all of which could result in monetary penalties, reputational damage, lawsuits, extensive and prescriptive consent decrees or judgments. Additional software resources, increased workforce or added expenses may be required to return us to a compliant data privacy status. Failure to comply with laws and regulations could harm our business. We develop and sell software and consulting services and maintain support operations in various countries whose laws and practices differ from one another and are subject to unexpected changes. Furthermore, our business is subject to regulation by various global governmental agencies, including agencies responsible for monitoring and enforcing employment and labor laws, workplace safety, environmental laws, consumer protection laws, anti- bribery laws, import / export controls, securities laws, laws related to compliance with U. S. government contracts and tax laws and regulations. In certain jurisdictions, these regulatory requirements may be more stringent than those in the United States. Managing these geographically diverse operations requires significant attention and resources to promote compliance. Our global reach includes countries considered high- risk environments for public corruption. This exposes us to risks associated with violations of anti- corruption laws and regulations such as the U. S. Foreign Corrupt Practices Act and the U. K. Bribery Act. To promote compliance, we forbid our agents, channel partners and employees from engaging in corrupt behavior and we have a compliance program to prevent and detect violations of anti- corruption laws. There remains, however, a risk that illegal conduct could occur thereby exposing us to the financial and reputational risks associated with a violation of anti- corruption laws. Non- compliance with applicable regulations or requirements could subject us to investigations, sanctions, enforcement actions, disgorgement of profits, fines, damages, civil and criminal penalties or injunctions and may result in our inability to provide certain products and services to existing or prospective customers. If any governmental sanctions are imposed, or if we do not prevail in any possible civil or criminal litigation or if customers make claims against us for compensation, our business and consolidated financial statements could be harmed. In addition, responding to any action will likely result in a significant diversion of management's attention and resources and an increase in professional fees and costs. Enforcement actions and sanctions could have a significant adverse effect on our business and consolidated financial statements. The effects of COVID-19 on our business, employees and consolidated financial statements are uncertain. We are continuing to conduct business during the COVID-19 pandemic with modifications to our workforce locations. Remote and hybrid access remain the primary means of work for most of our workforce. Remote and hybrid work arrangements may negatively impact our corporate culture, expose us to increased risk of cyber incidents given that employees do not have access to technology as robust as in our offices, or delay work due to reduced or limited access to technologies, equipment or services. The situation surrounding the COVID-19 pandemic remains fluid. The duration and extent of the impact from the COVID-19 pandemic depends on future developments that cannot be accurately predicted at this time, such as the development of virus mutations and variants, timing and effectiveness of vaccination efforts in the markets where we do business, the nature and scope of government economic recovery measures and the extent and effectiveness of containment actions. The impact of the COVID-19 pandemic may also have the effect of heightening many other risks and uncertainties described in this" Risk Factors" section. A catastrophic event or infrastructure failure could result in the loss of business and adverse financial consequences. Our personnel, source code and computer equipment is located in various regions throughout the United States and the world. A natural disaster (including significant disruptions in weather as a result of global climate change), cyberattack, terrorist act, pandemic or other unforeseen catastrophe in any of these areas or a breakdown in our business infrastructure, such as an interruption in power supply, telephone system or information technology systems, could cause disruptions to our sales, operations, services and product development activities. As our sales are generally greater at the end of a quarter, the potential adverse effects resulting from any of these events would be accentuated if they occurred at quarter end. Effective business continuity, disaster recovery and crisis management plans are critical to minimizing the impact of such unplanned or unexpected events. We also face increasing customer certification requirements with respect to such systems. Failure to establish plans that effectively mitigate the impacts of these disruptions or meet customer certification requirements could have a significant adverse effect on our business and consolidated financial statements. See" The effects of COVID-19 on our business, employees and consolidated financial statements are uncertain" portion of this" Risk Factors" section for a description of the risk associated

with the pandemie. Industry Operational Risks Our industry is highly competitive, which could result in downward pressure on

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our prices. We continue to experience competition across all markets for our products and services. Some of our current and
potential competitors have greater financial, technical, marketing and other resources than we do, some could establish
strategic alliances with one another, and some have well- established relationships with our current and potential customers.
Our current and potential competitors also include firms that have competed, or may in the future compete, by means of open
source licensing. Companies we have, or could have, strategic alliances with could reduce or discontinue technical, software
development and marketing relationships with us for competitive purposes. Our If our competitors may offer deep discounts on
certain products or services, or develop products that the marketplace considers more valuable -. If we are unable to provide
products or services that address our customers' needs or preferences, or we are unable to match favorable pricing
offered by our competitors, we could lose customers or fail to attract new customers. Further, we may be required to
lower prices or offer discounts or other favorable terms to compete successfully. Our maintenance products, which include
software license updates and product support fees, are generally priced as a percentage of new software license fees. Our
competitors may offer lower percentage pricing on product updates and support. Some competitors may bundle software
products for promotional purposes or as a long- term pricing strategy or provide guarantees of prices, product implementations
or wider geographical license usage provisions. Any of these practices could, over time, significantly constrain the prices that
we can charge for certain products. Furthermore, if we do not adapt pricing models to reflect changes in customer usage of our
products or changes in customer demand, our software license revenues could decrease. Additionally, increased distribution of
applications through application service providers, including software- as- a- service providers, may reduce the average price or
margin of our products or adversely affect other sales of our products, reducing new software license revenues or profitability.
These competitive pressures may result in decreased sales volumes, price reductions and / or increased operating costs, and
could result in lower revenues, margins and net income. We may not be successful in integrating emerging technologies or
developing and marketing new products to adequately address the rapidly changing technology industry. We operate in an
industry generally characterized by rapidly changing technology and frequent new product introductions. A major factor in our
future success will be our ability to anticipate technological changes and to integrate emerging technologies (including AI) to
develop and introduce, in a timely manner, new products and new ways to deliver them to meet those changes. Our ability to
grow revenue will be dependent on our ability to respond to customer needs in the areas of, among others, AI / ML, next
generation connectivity, autonomous vehicles, IIoT, electrification and sustainability, and to leverage cloud computing and new
computing platforms. In addition, our future success may depend on our ability to continue to develop a systems integrator
ecosystem able to handle integrations and process and application development to address the challenge of the increasingly
complex integration of our products' different functionalities to address customers' requirements. For those customers who
authorize a third- party technology partner to access their data, we do not provide any warranty related to the functionality,
security and integrity of the data transmission or processing. Despite contract provisions to protect us, customers may look to us
to support and provide warranties for the third- party applications, integrations, data and content, even though not developed or
sold by us, which may expose us to potential claims, liabilities and obligations, all of which could harm our business. We devote
substantial resources to research and development, which could cause our operating profits to decline. We devote substantial
resources to research and development. New competitors, technological advances in the software development industry by us or
our competitors, acquisitions, entry into new markets or other competitive factors may require us to invest significantly greater
resources than anticipated. If we are required to invest significantly greater resources than anticipated without a corresponding
increase in revenue, operating profits could decline. In addition, our periodic research and development expenses may be
independent of our level of revenue, which could negatively impact financial results. There can be no assurance that we will be
successful in developing and marketing, on a timely basis, new products or product enhancements or that the new products will
adequately address the changing needs of the marketplace or that we will successfully manage the transition from existing
products. Software products as complex as those we offer may contain undetected errors, defects or vulnerabilities when first
introduced or as new versions are released, and the likelihood of errors, defects or vulnerabilities is increased as a result of our
commitment to the frequency of product releases. There can be no assurance that errors, defects or vulnerabilities will not be
found in any new or enhanced products after the commencement of commercial shipments. The occurrence of any defects or
errors in our products could result in lost or delayed market acceptance and sales of our products, delays in payment to us by
customers, loss of customers or market share, product returns, damage to our reputation, diversion of our resources, increased
service and warranty expenses or financial concessions, increased insurance costs and liability for damages. Company
Operational Risks We are dependent upon our channel partners for a significant percentage of our revenue and usage of channel
partners presents certain heightened compliance risks. We distribute our products through a global network of independent
channel partners, which accounted for 26.1 %, 23.9 %, and 23.7 % and 22.2 % of our revenue during the years ended
December 31, 2023, 2022 <del>, and</del> 2021 <del>and 2020</del>, respectively. Channel partners sell our software products to new and existing
customers, expand installations within the existing customer base, offer consulting services and provide the first line of
technical support. <del>In the <mark>A meaningful amount of our</mark> APAC and EMEA <mark>revenue is from <del>regions, we are highly dependent</del></del></del></mark>
upon our channel partners. Difficulties in ongoing relationships with channel partners, such as failure to meet performance
criteria and differences in handling customer relationships, could adversely affect our performance. Additionally, the loss of any
major channel partner, including a channel partner's decision to sell competing products rather than ours, could result in
reduced revenue. Moreover, our future success will depend substantially on the ability and willingness of our channel partners
to dedicate the resources necessary to understand and promote our expanding portfolio of products and to support a larger
installed base within each of our geographic regions. If the channel partners are unable or unwilling to do so, we may be unable
to sustain revenue growth. Establishing The business relationships with new many of our channel partners are recently
established and could result in additional compliance burdens for us. In addition, these new channel partners may have a less-
established payment history and revenue from these channel partners could come with a higher rate of bad debt expense. Where
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channel partners operate on our behalf to collect and process personal data of customer contacts, failure to comply with relevant data privacy laws in the handling of such personal data could result in liability to us for any fines, civil suits or non-financial performance obligations imposed by regulatory authorities on these partners with respect to our customer data. Certain products require a higher level of sales and support expertise. Failure of our sales channel, particularly the independent channel partners, to obtain this expertise and to sell the new product offerings effectively could have an adverse impact on our sales in future periods. Any of these problems may result in the loss of or delay in customer acceptance, diversion of development resources, damage to our reputation or increased service and warranty costs, any of which could have a significant adverse effect on our business and consolidated financial statements. We may not be able to realize the potential benefit of our acquisitions and such acquisitions could pose risks to our business. We have a track record of acquire acquiring businesses and technology to support our long- term strategic direction. Each acquisition that we complete may present risks, including: difficulty in integrating the management teams, strategies, cultures and operations of the companies or businesses; failing to achieve anticipated synergies, including product synergies, revenue increases or cost savings; difficulty incorporating and integrating the acquired technologies or products with our existing product lines; difficulty with coordinating and integrating sales, distribution and marketing functions; failure to develop new products and services that utilize the technologies and resources of the companies; disruption of our ongoing business and diversion of management's attention to transition or integration issues; liabilities that were not identified during the acquisition process; the loss of our key employees, customers, partners and channel partners or those of the acquired companies or businesses; and cybersecurity and data privacy risks. Future acquisitions may involve the expenditure of significant cash resources; the incurrence of debt, which increases our interest expense and leverage; or the issuance of equity, which could be dilutive to stockholders and may decrease earnings per share. We allocate a portion of the purchase price to goodwill and intangible assets. If we do not realize all the economic benefits of an acquisition, there could be an impairment of goodwill or intangible assets. Furthermore, impairment charges are generally not tax-deductible and will result in an increased effective income tax rate in the period the impairment is recorded. If we do not achieve the anticipated benefits of our acquisitions as rapidly or to the extent anticipated by our management or financial and industry analysts, there could be a significant adverse effect on our stock price, business and consolidated financial statements. The ongoing digital transformation of our operational processes may not achieve the benefits identified. In We are in the process-normal course of our business, we implementing --- implement new processes, tools and technology to transform our business operations and to enable future scalability. While these transformations are anticipated intended to streamline, automate and deliver efficiencies across multiple commercial and operational processes within the business, there is a risk that the systems or processes could be more difficult to implement than anticipated, that the new processes will not be effectively or efficiently used, and that the benefits of such systems and processes could be substantially delayed. There is also a risk that we will have to write off previously capitalized expenditures if the projects are not successful or if implementation decisions regarding the project are modified. Factors that could further delay the timing or impact of benefits realization include : • (i) changes in leadership and project objectives; -(ii) diversion of management's attention to different projects; (iii) additional needs for technical expertise and manpower; and -(iv) longer than anticipated time horizon for employee adoption and mastery. Any of the above could divert efforts of key operational management away from other aspects of the business, including the maintenance of current commercial and business platforms, and result in increased consulting and software costs. These factors could have a significant negative impact on our business and consolidated financial statements. We may be subject to proceedings that could harm our business. We are subject to various investigations, claims and legal proceedings that arise in the ordinary course of business, including commercial disputes, labor and employment matters, tax audits and litigation, alleged infringement of intellectual property rights and other matters. Use or distribution of our products could generate product liability, particularly with respect to new ways of going to market, including offering our products in cloud environments, selling software as a service and licensing or otherwise providing our products as part of a third-party developer ecosystem, or regulatory infraction or similar claims by our customers, end users, channel partners, government entities or other third parties. Sales and marketing activities that impact processing of personal data, as well as measures taken to promote license compliance, may also result in claims by customers and individual employees of customers. Each of these matters is subject to various uncertainties, and it is possible that an unfavorable resolution of one or more of these matters could have a significant adverse effect on our consolidated financial statements as well as cause reputational damage. We may suffer reputational or financial harm if we have product standard or quality issues. We have separate quality systems and registrations under the ISO 9001: 2015 standard in addition to other governmental and industrial regulations. Our continued compliance with quality standards and favorable outcomes in periodic examinations is important to retain current customers and vital to procure new sales. If it was determined that we were not in compliance with various regulatory or ISO 9001 standards, our certificates of registration could be suspended, requiring remedial action and a time- consuming re- registration process. Product quality issues or failures could result in our reputation becoming diminished, resulting in a material adverse impact on our business and consolidated financial statements. Our short- term and long- term sales forecast may not be accurate, which could result in an adverse impact on our business and consolidated financial statements. The software business is generally characterized by long sales cycles. These long sales cycles increase the difficulty of predicting sales for any particular quarter. Many operational and strategic decisions are based upon short- and long- term sales forecasts. Our sales personnel eontinually monitor the status of proposals, including the estimated closing date and the value of the sale, in order to forecast quarterly sales. These forecasts are subject to significant estimation and are impacted by many external factors, including global economic conditions and the performance of our customers. A variation in actual sales activity from that forecasted could cause us to plan or budget incorrectly and, therefore, could have a significant adverse effect on our business and consolidated financial statements. Management also forecasts macroeconomic trends and developments and integrates them through long-range planning into budgets, research and development strategies and a wide variety of general management duties. Global economic conditions, and the effect those

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conditions and any disruptions in global markets have on our customers, may have a significant impact on the accuracy of our
sales forecasts. These conditions may increase the likelihood or the magnitude of variations between actual sales activity and
our sales forecasts and, as a result, our performance may be hindered because of a failure to properly match corporate strategy
with economic conditions. This, in turn, could have a significant adverse effect on our business and consolidated financial
statements. To the extent our forecasts are incorrect and, as a result, we fail to meet analyst expectations regarding financial
performance or miss or reduce the outlook financial guidance we give to investors, our share price may be adversely impacted.
We may not meet our targets and strategies relating to environmental, social and governance considerations, which could expose
us to potential liabilities, increased costs, reputational harm and other adverse effects on our business. We have established
targets and strategies related to our reduction of greenhouse gas emissions. Our ability to achieve any such targets or strategies is
subject to numerous factors and conditions, many of which are outside of our control. Examples of such factors include, but are
not limited to, evolving legal, regulatory and other standards, processes and assumptions, the pace of scientific and technological
developments, increased costs, the availability of requisite financing and changes in carbon markets. Failures or delays (whether
actual or perceived) in achieving our targets or strategies related to climate change and other environmental matters could
adversely affect our business, operations and reputation, and increase risk of litigation. Furthermore, many governments,
regulators, investors, employees, customers and other stakeholders are increasingly focused on environmental, social and
governance considerations relating to businesses, including climate change and greenhouse gas emissions, human capital and
diversity, equity and inclusion. We make statements about our environmental, social and governance (ESG) targets and
strategies through information provided on our website, press statements and other communications, including through our
Corporate Responsibility Report. Responding to these environmental, social and governance considerations and implementation
of these targets and strategies involves risks and uncertainties, including those described under" Note About Forward- Looking
Statements". In addition, some stakeholders may disagree with our targets and strategies and the focus of stakeholders may
change and evolve over time. Stakeholders also may have very different views on where environmental, social and governance
focus should be placed, including differing views of regulators in various jurisdictions in which we operate. Any failure, or
perceived failure, by us to achieve our targets, further our strategies, adhere to public statements, comply with federal, state or
international environmental, social and governance laws and regulations or meet evolving and varied stakeholder expectations
and standards could result in legal and regulatory proceedings against us and materially adversely affect our business, reputation,
results of operations, financial condition and stock price. Additionally, new laws, regulations, policies, and international
accords relating to environmental, social and governance matters, including sustainability, climate change, human
capital and diversity, are being developed and formalized in the United States, Europe and elsewhere, which may
require specific, target- driven frameworks or disclosure requirements. For example, in the United States, the SEC has
proposed rules requiring, among other things, disclosure of public companies' climate- related strategies, costs, impacts
and targets. The California Legislature recently passed two bills that will impose climate- related reporting requirements
for many companies doing business in the state, including Ansys. Standards for reporting ESG metrics, including ESG-
related disclosures that may be required by the SEC or other regulators, are complex and evolving, and the
implementation and oversight of controls to comply with applicable reporting and disclosure standards could impose
significant compliance costs. In addition, such disclosure requirements could result in revisions to our previous ESG-
related disclosures or challenges in meeting evolving and varied regulatory and other stakeholder expectations and
standards, which could expose us to liability or harm our reputation and prospects. Intellectual Property Risks Our success
is highly dependent upon the legal protection of our proprietary technology. We primarily rely upon contracts, copyright, patent,
trademark and trade secrets laws to protect our technology. We maintain intellectual property programs, including applying for
patents, registering trademarks and copyrights, protecting trade secrets, entering into confidentiality agreements with our
employees, customers and partners and limiting access to and distribution of our software, documentation and other proprietary
information. However, software programs are particularly prone to piracy, which is a global phenomenon, and as a result we
may lose revenue from piracy or usage and distribution of unlicensed software. Additionally, patent, copyright, trademark and
trade secret protection do not provide the same coverage in every country in which we sell our products and services and some
forms of contractual protections (including limited licenses," click- wrapped" licenses and online agreement) may not be
adequately enforced. Policing the unauthorized distribution and use of our products is difficult, and software piracy (including
online piracy) is a persistent problem. While we continue to develop better mechanisms to detect and report or investigate
unauthorized use of our software, we are also constrained by data privacy laws that restrict our ability to collect data about
unlawful usage in some countries. We cannot assure that the steps we take to protect our proprietary technology are adequate to
prevent misappropriation of our software by third parties, or that third parties will not copy our technology or develop similar
technology independently to compete with our products. Despite our efforts to prevent such activities, we may nonetheless lose
significant revenue due to illegal use of our software or technology. In the event of a an infringement or misappropriation of
our intellectual property, costly and time- consuming litigation may be necessary to enforce our rights. In addition, third parties
may subject us to infringement claims with respect to their intellectual property rights. Any such litigation could be costly to
defend, damage our reputation and distract our employees from their daily work. Any successful infringement claims asserted
against us could require us to develop technology workarounds for the impacted technologies, products or solutions, which
could be costly, disrupt product development and delay go- to- market activities. Such disruption and delay could negatively
impact our financial results. We may not be able to continue to obtain licenses to third- party software and intellectual property
on reasonable terms or at all, which may disrupt our business and harm our financial results. We license third-party software,
including third- party open source software, and other intellectual property for use in product research and development and, in
some instances, for inclusion in our products. We also license third- party software, including the software of our competitors, to
test the interoperability of our products with other industry products and in connection with our solutions and professional
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services. These licenses may need to be renegotiated or renewed from time to time, or we may need to obtain new licenses in the
future. Third parties may stop adequately supporting or maintaining their technology, or they or their technology may be
acquired by our competitors who elect to terminate our contractual relationship. Furthermore, third parties may challenge our use
of open source software and compliance with the open source software license terms, or we may inadvertently use third- party
open source software in a manner that exposes us to non-compliance claims. We may, additionally, acquire companies that
license third- party software from our competitors or others who may elect to terminate the contractual relationship once the
acquisition is announced. If we are unable to obtain licenses to such third-party software and intellectual property on reasonable
terms or at all, we may not be able to sell the affected products, our customers' usage of the products may be interrupted or our
product development processes and professional services offerings may be disrupted, which could in turn harm our financial
results, our customers' ability to utilize our software and our reputation. Cybersecurity Risks Cyberattacks and security
vulnerabilities could lead to reduced revenue, increased costs, liability claims or harm to our reputation. While we undertake
commercially reasonable efforts to maintain and improve the security and integrity of our products, source code, computer
systems and data with respect to the relative sensitivity of such software, systems and data, the number of computer" hackers"
developing and deploying destructive software programs that attack our products and computer systems continues to increase.
We have incurred and will continue to incur additional costs to enhance our cybersecurity efforts. Because the tactics and tools
used to obtain unauthorized access to networks or to sabotage systems are constantly evolving, we may be unable to implement
adequate preventive measures. Furthermore, employees working from remote work environments could expose us to increased
security risks and attacks. Such attacks could disrupt the proper functioning of our products, cause errors in the output of our
customers' work, or allow unauthorized access to and disclosure of our sensitive, proprietary or confidential information or that
of our customers and employees. In the event of a serious breach of our products or systems, or where a breach occurs due to our
failure to implement reasonable and appropriate safeguards, our reputation may suffer, customers may stop buying products or
may terminate current services, we could face lawsuits and potential civil liability, as well as regulatory fines and non-financial
penalties for any personal data breach and our financial performance could be negatively impacted. There is also a danger of
industrial espionage, cyberattacks (including state-sponsored attacks), misuse, theft of information or assets (including source
code) or damage to assets by people who have gained unauthorized access to our facilities, systems or information. We have in
the past, and may in the future, experience such attacks. This includes access to systems or information through email phishing
attacks on our employees, which has become a very prevalent technique used against companies, often delaying detection
through increasingly complex practices. The objective of these attacks is often to acquire user account credentials in order to
access other computer systems through linked accounts or where users have recycled passwords across systems. The There is
also attack against Solar Winds in 2020, in which hackers inserted malware into a Solar Winds software update, highlights the
growing risk of from the infection of software while it is under assembly, known as a supply chain attack. As a software
provider, there is the risk that we could become a vector for a similar style attack or could ourselves become the subject of a
significant network breach through our usage of compromised third- party software. Similarly, the subversion of popular open
source modules , such as the recently exploited Log4J vulnerability represents -- presents a widespread and ongoing risk across
the software development sector. Increasing use of artificial intelligence may increase these risks. Inadequate security
practices or inadvertent acts or omissions by our employees and partners may also result in unauthorized access to our data.
Employees or third parties may also intentionally compromise our or our customers' security or systems. Such cybersecurity
breaches, misuse of data or other disruptions could lead to loss of or unauthorized disclosure of our source code or other
confidential information, unlicensed use and distribution of our products without compensation, illegal use of our products that
could jeopardize the security of customer information stored in and transmitted through our computer systems and theft.
manipulation and destruction of proprietary data, resulting in defective products, performance downtimes and possible violation
of export laws and other regulatory compliance requirements. Although we actively employ measures to combat such activities,
preventing unauthorized access to our systems and data is inherently difficult. In addition, litigation to either pursue our legal
rights or defend any claims against us could be costly and time- consuming and may divert management's attention and
adversely affect the market's perception of us and our products. We have experienced targeted and non-targeted cybersecurity
attacks and incidents in the past that have resulted in unauthorized persons gaining access to our information and systems, and
we could in the future experience similar attacks. To date, no cybersecurity incident or attack described herein has had a material
impact on our business or consolidated financial statements. A number of our core processes, such as software development,
sales and marketing, customer service and financial transactions, rely on IT infrastructure and applications. We also rely on
third- party service providers and products, which are exposed to various security vulnerabilities outside of our control.
Malicious software, sabotage and other cybersecurity breaches of the types discussed above could cause an outage of our
infrastructure, which could cause short-term disruption in operations or, in the event of a longer disruption, lead to a substantial
denial of service to our customers and ultimately to production downtime, recovery costs and customer claims for breach of
contract, as well as reputational damage and impact to employee morale and productivity. We rely on service providers for
infrastructure and cloud- based products. We use a number of third- party service providers, which we do not control, for key
components of our infrastructure, particularly with respect to development and delivery of our cloud- based products. The
utilization of these service providers gives us greater flexibility in efficiently delivering a more tailored, scalable customer
experience, but also exposes us to additional risks and vulnerabilities. Third- party service providers operate their own platforms
that we access, and we are, therefore, vulnerable to their service interruptions. We may experience interruptions, delays and
outages in service and availability from time to time as a result of problems with our third- party service providers'
infrastructure. Lack of availability of this infrastructure could be due to a number of potential causes including technical failures,
natural disasters (including significant disruptions in weather as a result of global climate change), fraud or security attacks that
we cannot predict or prevent. Such outages could lead to the triggering of our service level agreements and the issuance of
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credits to our cloud- based product customers, which may impact our business and consolidated financial statements. In
addition, those of our products and services that depend upon hosted components are vulnerable to security risks inherent in
web- based technologies, including greater risk of unauthorized access to or use of customers' protected data. Interception of data
transmission, misappropriation or modification of data, corruption of data and attacks by bad actors against our service providers
may also adversely affect our products or product and service delivery. Malicious code, viruses or vulnerabilities that are
undetected by our service providers may disrupt our business operations generally and may have a disproportionate effect on
those of our products that are developed and delivered in the cloud environment. If our security, or that of any of our third-party
service providers, is compromised, our software is unavailable or our customers are unable to use our software within a
reasonable amount of time or at all, then our business and financial statements could be adversely affected. These risks, though
largely outside our control, may impact customer perception of our products, service and support, and may damage our brand.
While we devote resources to maintaining the security and integrity of our products and systems, as well as ensuring adequate
due diligence for our third- party service providers, cloud security and reliability is inherently challenging. In the event of a
material breach of data hosted by our service providers or a serious security incident on behalf of, caused by or experienced by a
service provider, we may experience significant operational and technical difficulties, loss of data including customer data,
diminished competitive position or reputation and loss of customer engagement, which could result in civil liabilities and a
negative impact to financial performance. It is also possible that our customers and potential customers would hold us
accountable for any breach of security affecting a third- party service provider's infrastructure and we may incur significant
liability from those customers and from third parties with respect to any breach affecting these systems. We may not be able to
recover a material portion of our liabilities to our customers and third parties from a third-party cloud provider. Financial Risks
Foreign exchange rate fluctuations may adversely affect our consolidated financial statements. As a result of our significant
international presence, we have revenue, expenses, cash, accounts receivable and payment obligations denominated in foreign
currencies, most notably the Euro and Japanese Yen. Our operating results are adversely affected when the U. S. Dollar
strengthens relative to foreign currencies and are positively affected when the U. S. Dollar weakens relative to foreign
currencies. Additionally, when the U. S. Dollar strengthens relative to other currencies, certain channel partners who pay us in
U. S. Dollars may have trouble paying on time or may have trouble distributing our products due to the impact of the currency
exchange fluctuation on their cash flows. This may impact our ability to distribute our products into certain regions and markets.
We seek to reduce our currency exchange transaction risks primarily through our normal operating and treasury activities,
including derivative instruments, but there can be no assurance that these activities will be successful in reducing these risks. In
addition, we incur transaction fees in the usage of such derivative instruments. Changes in currency exchange rates may
adversely affect or create considerable volatility in our consolidated financial statements. Changes to tax laws, variable tax
estimates and tax authority audits could impact our financial results and operations. Our operations are subject to income and
transaction taxes in the United States and in multiple foreign jurisdictions. A change in the tax law in the jurisdictions in which
we do business, including an increase in tax rates, an adverse change in the treatment of an item of income or expense or a
decrease in tax rates in a jurisdiction in which we have significant deferred tax assets, could result in a material increase in tax
expense. Furthermore, we have recorded significant deferred tax liabilities related to acquired intangible assets that are
generally not deductible for tax purposes. These deferred tax liabilities are based on future statutory tax rates in the locations in
which the intangible assets are recorded. Any future changes in statutory tax rates would be recorded as an adjustment to the
deferred tax liabilities in the period the change is announced and could have a material impact on our effective tax rate during
that period. Additionally, changes in tax laws could impact operating cash flow due to changes in timing of payments required
as well as the overall rate we are required to pay. The Organization for Economic Co-operation and Development ("OECD").
in coordination with the G20, has suggested a number of fundamental changes in as part of an effort to address the global
tax issue of base erosion and profit shifting. In particular, and as a way to address the tax challenges arising from the
digitalization of the economy, the OECD has introduced a two-pillar approach which provides for the allocation of profits
among tax-taxing jurisdictions in which companies do business, and as well as the implementation of a 15 percent global
minimum tax rate (namely the" Pillar One" and "Pillar Two" proposals). The agreement between OECD and G20 members
calls for implementation of the various measures of the Pillar Two rules in 2024 and 2025. Many countries are in the
process of implementing laws based on <mark>the</mark> Pillar Two <del>proposals</del> – <mark>proposal ,</mark> which may adversely <del>impact <mark>affect</mark> our provision</del>
for income taxes, net income , and cash flows depending on the specifics of the laws passed in each jurisdiction. These
proposals also entail significant compliance obligations and if we are unable to successfully transition our business systems,
processes and internal controls, it could impact our ability to meet financial and tax reporting deadlines. We also make
significant estimates in determining our worldwide income tax provision. These estimates involve complex tax regulations in
many jurisdictions and are subject to many transactions and calculations in which the ultimate tax outcome is uncertain. The
outcome of tax matters could be different than the estimates reflected in the historical income tax provision and related accruals.
Such differences could have a material impact on income tax expense and net income in the periods in which such
determinations are made. The amount of income tax we pay is subject to ongoing audits by federal, state and foreign tax
authorities. These audits can result in additional assessments, including interest and penalties. Our estimates for liabilities
associated with uncertain tax positions are highly judgmental and actual future outcomes may result in favorable or unfavorable
adjustments to our estimated tax liabilities, including estimates for uncertain tax positions, in the period the assessments are
made or resolved, audits are closed or when statutes of limitation on potential assessments expire. As a result, our effective tax
rate may fluctuate significantly on a quarterly or annual basis. Our indebtedness could adversely affect our business, financial
condition and results of operations. We have outstanding borrowings of $755.0 million under a term loan facility, which
matures on June 30, 2027. We also have access to a $ 500. 0 million revolving loan facility, which includes a $ 50. 0 million
sublimit for the issuance of letters of credit. The credit agreement governing these loans contains customary representations and
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warranties, affirmative and negative covenants and events of default. The credit agreement also contains a financial covenant requiring us to maintain a consolidated net leverage ratio not in excess of 3. 50 to 1. 00 as of the end of any fiscal quarter (for the four- quarter period ending on such date) with an opportunity for a temporary increase in such consolidated net leverage ratio to 4. 00 to 1. 00 upon the consummation of certain qualified acquisitions for which the aggregate consideration is at least \$ 250. 0 million. Notwithstanding the limits contained in the credit agreement governing our term loan facility and revolving loan facility, we may be able to incur substantial additional debt from time to time to finance working capital, capital expenditures, share repurchases, investments or acquisitions or for other purposes. If we do so, the risks related to our level of debt could intensify. Specifically, our level of debt could: • make it more difficult for us to satisfy our debt obligations and other ongoing business obligations, which may result in defaults; • result in an event of default if we fail to comply with the financial and other covenants contained in the agreement governing our debt, which could result in all of our debt becoming immediately due and payable or require us to negotiate an amendment to financial or other covenants that could cause us to incur additional fees and expenses; • limit our ability to obtain additional financing to fund future working capital, capital expenditures, acquisitions or other general corporate requirements; • reduce the availability of our cash flow to fund working capital, capital expenditures, acquisitions and other general corporate purposes; • increase our vulnerability to the impact of adverse economic and industry conditions; • expose us to the risk of increased interest rates as our borrowings are at variable rates of interest, which can adversely impact our operating cash flow; • limit our flexibility in planning for, or reacting to, and increasing our vulnerability to, changes in our business, the industries in which we operate and the overall economy; • place us at a competitive disadvantage compared to other, less leveraged competitors; • increase our cost of borrowing; and • increase our effective tax rate as interest expense could become non-deductible. Any of the above- listed factors could have an adverse effect on our business, financial condition and results of operations and our ability to meet our payment obligations under our debt agreement.