

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-K**

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

**For the fiscal year ended December 31, 2023
OR**

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

Commission file number: 001-35418



EPAM SYSTEMS, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

**41 University Drive
Newtown**

**Suite 202
Pennsylvania**

(Address of principal executive offices)

22-3536104

(I.R.S. Employer
Identification No.)

18940

(Zip code)

267-759-9000

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

<u>Title of Each Class</u>	<u>Trading Symbol</u>	<u>Name of Each Exchange on which Registered</u>
Common Stock, par value \$0.001 per share	EPAM	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: **None**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☒	Accelerated filer	☐	Emerging growth company	☐
Non-accelerated filer	☐	Smaller reporting company	☐		

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☒

As of June 30, 2023 the aggregate market value of the registrant's common stock held by non-affiliates of the registrant was approximately \$12,606,792,746 based on the closing sale price as reported on the New York Stock Exchange. Solely for purposes of the foregoing calculation, "affiliates" are deemed to consist of each officer and director of the registrant, and each person known to the registrant to own 10% or more of the outstanding voting power of the registrant.

As of February 9, 2024, there were 57,827,498 shares of common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

The registrant intends to file a definitive Proxy Statement for its 2024 annual meeting of stockholders pursuant to Regulation 14A within 120 days of the end of the registrant's fiscal year ended December 31, 2023. Portions of the registrant's Proxy Statement are incorporated by reference into Part III of this Annual Report on Form 10-K. With the exception of the portions of the Proxy Statement expressly incorporated by reference, such document shall not be deemed filed with this Annual Report on Form 10-K.

EPAM SYSTEMS, INC.
FORM 10-K
FOR THE YEAR ENDED DECEMBER 31, 2023
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In this annual report, “EPAM,” “EPAM Systems, Inc.,” the “Company,” “we,” “us” and “our” refer to EPAM Systems, Inc. and its consolidated subsidiaries.

“EPAM” is a trademark of EPAM Systems, Inc. All other trademarks, trade names and service marks used herein are the property of their respective owners.

Unless otherwise indicated, information contained in this annual report concerning our industry and the markets in which we operate, including our general expectations and market position, market opportunity and market share, is based on information from various sources (including industry publications, surveys and forecasts and our internal research), on assumptions that we have made, which we believe are reasonable, based on such data and other similar sources and on our knowledge of the markets for our services. The projections, assumptions and estimates of our future performance and the future performance of the industry in which we operate, are subject to a high degree of uncertainty and risk due to a variety of factors, including those described under “Item 1A. Risk Factors” and elsewhere in this annual report. These and other factors could cause results to differ materially from those expressed in the estimates included in this annual report.

FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains estimates and forward-looking statements, principally in “Item 1. Business,” “Item 1A. Risk Factors” and “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations.” Our estimates and forward-looking statements are mainly based on our current expectations and estimates of future events and trends, which affect or may affect our businesses and operations. Those future events and trends may relate to, among other things, developments relating to the war in Ukraine and escalation of the war in the surrounding region, political and civil unrest or military action in the geographies where we conduct business and operate, difficult conditions in global capital markets, foreign exchange markets and the broader economy, and the effect that these events may have on customer demand, our revenues, operations, access to capital and profitability. Although we believe that these estimates and forward-looking statements are based upon reasonable assumptions, they are subject to several risks, uncertainties and assumptions as to future events that may not prove to be accurate and are made in light of information currently available to us. Important factors, in addition to the factors described in this annual report, may materially and adversely affect our results as indicated in forward-looking statements. You should read this annual report and the documents that we have filed as exhibits hereto completely and with the understanding that our actual future results may be materially different from what we expect.

The words “may,” “will,” “should,” “could,” “expect,” “plan,” “anticipate,” “believe,” “estimate,” “predict,” “intend,” “potential,” “might,” “would,” “continue” or the negative of these terms or other comparable terminology and similar words are intended to identify estimates and forward-looking statements. Estimates and forward-looking statements speak only as of the date they were made and, except to the extent required by law, we undertake no obligation to update, to revise or to review any estimate and/or forward-looking statement because of new information, future events or other factors. Estimates and forward-looking statements involve risks and uncertainties and are not guarantees of future performance. As a result of the risks and uncertainties described above, the estimates and forward-looking statements discussed in this annual report might not occur and our future results, level of activity, performance or achievements may differ materially from those expressed in these forward-looking statements due to, including, but not limited to, the factors mentioned above, and the differences may be material and adverse. Because of these uncertainties, you should not place undue reliance on these forward-looking statements.

PART I

Item 1. Business

Overview

EPAM has used its software engineering expertise to become a leading global provider of digital engineering, cloud and artificial intelligence-enabled transformation services, as well as a leading business and experience consulting partner for global enterprises and ambitious start-ups. We address our clients' transformation challenges by fusing EPAM Continuum's integrated strategy, experience and technology consulting with our 30+ years of engineering execution to speed our clients' time to market and drive greater value from their digital investments.

We deliver business and technology transformation from start to finish, leveraging agile methodologies, proven customer collaboration frameworks, engineering excellence tools, multidisciplinary teams and our award-winning proprietary global delivery platform. We support our customers while enabling them to reimagine their businesses through a digital lens. In a business landscape that is constantly challenged by the pressures of digitization, we focus on building long-term partnerships with our customers through innovative and scalable software solutions, integrated strategy, experience and technology consulting, and a continually evolving mix of advanced capabilities.

Our historical core competencies, which include software development and product engineering services, combined with our work alongside global leaders in enterprise software platforms and emerging technology companies, laid the foundation for the evolution of our other offerings. These include advanced technology software solutions, intelligent enterprise services, and digital engagement. Our strategic acquisitions have expanded our geographic reach and service capabilities and will continue to enable us to offer a broader range of services to our customers from a multitude of locations.

Services

We turn our customers' operations into intelligent enterprise hubs with our proprietary platforms, integrated engineering practices and smart automation. Developing a digital experience or product from end-to-end requires input and expertise from a variety of professionals with a broad range of skills. Our multidisciplinary teams and global delivery framework come together to deliver well-rounded technology solutions that we believe bring a competitive advantage to our customers. In addition to utilizing our dedicated delivery centers, which allow us to deploy key delivery talent, we work closely with leading companies in various industries to enable our customers to better leverage technology and address the simultaneous pressures of driving value for their consumer and offering a more engaging experience.

Our service offerings continuously evolve to provide more customized and integrated solutions to our clients. We combine software engineering with customer experience design, business consulting, strategy, and technology innovation services in areas such as cloud platforms, cybersecurity and artificial intelligence.

Engineering

Our engineering foundation underpins how we architect, build and scale next-generation software solutions and agile delivery teams. Our engineering expertise allows us to build enterprise technologies that improve business processes, offer smarter analytics and result in greater operational excellence through requirements analysis and platform selection, complex customization, cross-platform migration, implementation and integration.

We have deep expertise and the ability to offer a comprehensive set of software product and platform development services including product research, customer experience design and prototyping, program management, component design and integration, full lifecycle software testing, product deployment and end-user customization, performance tuning, product support and maintenance, managed services, as well as cross-platform migration and modernizing legacy platforms.

We use our experience, custom tools and specialized knowledge to integrate our customers' chosen strategy and create custom solutions in order to architect the right solutions with built-in quality and security gates and accomplish the best outcome from the digital modernization efforts.

Cloud

Cloud technology has become the default platform for nearly every digital use. We assist our clients in creating a roadmap to set and refine their IT and business goals while identifying new and emerging cloud opportunities. Cloud technology endows adaptive enterprises with agility and flexibility, paving the way for new business models, cutting-edge products, and the acceleration of dynamic experiences for a faster time-to-market. Our experts have a solid understanding of infrastructure and are skilled at advancing the pace of change. Additionally, we assist our clients with developing and executing optimal cloud technology migration strategies and provide customized cloud solutions.

Data, Analytics and Artificial Intelligence

With deep expertise in data and analytics, business intelligence and cloud platform development, we navigate the complexities of building and scaling new data capabilities necessary for the evolving environment. From migrating data platforms to the cloud to implementing data governance practices across the enterprise, we help our customers unlock data-reliant outcomes for their business, ushering them into the future. Our integrated teams of business and technology experts assess our customers' data ecosystems, build roadmaps and deliver data solutions to the market.

We drive artificial intelligence ("AI") and generative AI strategy, delivery and enablement from a business perspective to ensure meaningful, sustained outcomes. Our hybrid, networked teams of consultants, designers, architects, engineers and trainers have developed numerous proprietary data accelerators, repeatable AI frameworks and methodologies that can be implemented quickly and at scale. With our end-to-end AI capabilities, we uncover opportunities for AI, advise and then build solutions that unlock new business models, enhance productivity, automate operations, and deliver deeper customer and supply chain insights.

Customer Experience

We enable our customers to better leverage technology more effectively, addressing the simultaneous pressures of driving value for their consumers and offering more engaging experiences. We apply innovative design ideas for customers looking to improve user experiences and drive greater customer engagement. We assist them in digitally transforming into adaptive, product-centric organizations that reinvent experiences in real time. Additionally, we specialize in physical experience where we conceive, develop physical products and design spaces for a digital world. Within our customers' organizations, we reshape processes for the workforce through engaging, enabling and empowering experiences. Moreover, we help set up marketing teams and brands to remain relevant in the future.

Cybersecurity

We guide our clients through the process of achieving operational resilience against evolving cybersecurity threats. This requires pervasive security that matches the rapid pace of agile development, ensures regulatory compliance and training, and aligns with business objectives. We help our clients achieve their security objectives through adding security controls into systems and processes and deploying our agile security platform and AI-driven tools that allow for rapid threat responses and attack simulations. We approach enterprise security holistically, extending our services across proactive defense and actionable intelligence to engineer an effective security model. Our specialties within the cybersecurity domain include managed detection and response, digital risk management, cybersecurity advisory, cloud and data security, ransomware protection, zero trust design and implementation, and cyber intelligence and managed incident response services.

Industry Expertise

Strong industry-specific knowledge, backed by extensive experience merging technology with our customers' business processes, enables us to deliver tailored solutions to various industry verticals. Our customers operate in five main industry verticals as well as a number of emerging verticals where we are increasing our presence.

Financial Services. We have significant experience working with global investment banks, commercial and retail lending institutions, credit card and payment solution companies, trading platforms, exchanges and brokerages, capital markets, wealth and investment management institutions, insurers and various other providers of financial services and financial technology. We assist these customers with challenges stemming from new regulations, compliance requirements, customer-based needs and risk management. Our financial services domain experts have been recognized with industry awards for engineering and deploying unique applications and business solutions that facilitate growth, competitiveness, regulatory compliance and customer interaction while driving cost efficiency and digital transformation.

Travel and Consumer. In this vertical, our capabilities span a range of platforms, applications and solutions that consumer goods manufacturers, global, regional and local retailers, online retail brands and marketplaces, distributors and supply chain organizations as well as leading airlines, travel agencies and global hotel brands use to enhance their customers' experience and efficiently manage their operations. We deliver a wide range of services to these customers from complex system modernization, brand strategy and space design, digital marketing, payments and loyalty programs to inventory and order management, leading edge innovations in multi-channel sales and distribution. We have transformed organizations by enabling them to use technology to expand and revolutionize their business models. Our services and high-quality tools directly impact the creation of breakthrough products and compelling brand and employee experiences, helping companies become more adaptive and address market challenges.

Software and Hi-Tech. We offer complex software product development services to address the constant need for innovation and agility among software and technology companies. Some of the most prominent software brands in the world partner with us to build technology consulting, core engineering and full-scale integration capabilities. Through our extensive experience with many industry leaders in Hi-Tech research and development, software engineering and integration, we have established proprietary internal processes, methodologies as well as information technology infrastructure, which give us an edge when it comes to serving customers in the Hi-Tech and Software product markets. Our services span the complete software development lifecycle for software product development, including our comprehensive development methodologies, testing, performance tuning, deployment, maintenance and support.

Business Information and Media. We help our business information and media customers build products and solutions for all modern platforms including web media streaming, mobile information delivery, print to digital transformations and information discovery and search. Our solutions help our customers in developing new revenue sources, accelerating content management, delivery and monetization, and reaching broader audiences. We serve a diverse set of customers in this vertical including entertainment media, news and sports broadcasting companies, financial data and legal information providers, content distributors, educational materials publishers and advertising networks.

Life Sciences and Healthcare. We partner with global pharmaceutical, medical and scientific technology, biotechnology companies and retail pharmacies to deliver sophisticated scientific informatics and innovative enterprise technology solutions. Our Life Sciences experts utilize their extensive technology skill set to provide deep scientific and mathematical knowledge to broad-based initiatives. Our Life Sciences solutions enable customers to speed research and accelerate time-to-market while enhancing collaboration, knowledge management and operational excellence. We help our customers in the Healthcare industry to adapt to changing regulatory environments and improve the quality of care, all while managing the cost of care through integrated health solutions for patients and providers and human-centered design. Our professionals deliver an end-to-end experience that includes strategy, architecture, development and managed services to customers ranging from the traditional healthcare providers to innovative startups.

Emerging Verticals. We also serve the diverse technology needs of customers in the energy, telecommunications, educational, real estate, automotive and various manufacturing industries, as well as government entities. For these customers we develop tools such as plant management platforms, energy saving applications, inventory management mechanisms, and connected vehicle platforms. Additionally, we undertake various industry-specific aspects of intelligent automation and operational efficiency. These customers are included in our Emerging Verticals, which are further discussed in "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part II of this Annual Report on Form 10-K.

Customers

We maintain a geographically diverse client base in multiple industries. Our focus on delivering quality service is reflected in established relationships with many of our customers, with 65.6% and 28.2% of our revenues in 2023 coming from customers that had used our services for at least five and ten years, respectively. We aim to grow our customer portfolios organically and through strategic acquisitions. We continually evaluate potential acquisition targets that can expand our vertical-specific domain expertise, geographic footprint, service portfolio, client base and management expertise.

The following table shows revenues from the top five and ten customers in the respective year as a percentage of revenues for that year:

	% of Revenues for Year Ended December 31,		
	2023	2022	2021
Top five customers	16.6 %	16.4 %	18.2 %
Top ten customers	23.6 %	23.8 %	25.7 %

During the year ended December 31, 2023 the customer concentration remained similar to the levels in the previous year. As we remain committed to diversifying our client base and adding more customers to our client mix, we expect revenue concentration from our top customers to decrease over the long-term.

See “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations” in Part II of this Annual Report on Form 10-K for additional information related to revenues.

See Note 18 “Segment Information” in the notes to our consolidated financial statements in this Annual Report on Form 10-K for information regarding long-lived assets and customer revenues by geographic location as well as financial information related to our reportable segments.

Global Delivery Model

Our global delivery model and centralized support functions, combined with the benefits of scale from the shared use of fixed-cost resources, have created a delivery base whereby our applications, tools, methodologies and infrastructure allow us to seamlessly deliver services and solutions from our global delivery centers to global customers across the world. Over the years we have developed a robust global delivery model that serves as a key competitive advantage, enabling us to better meet our customers’ diverse needs and to provide a compelling value proposition.

We continuously evolve our delivery platform to support our business needs and strategy by engaging personnel with diversified skills in existing and new locations. As of December 31, 2023, we had approximately 47,350 delivery personnel consisting mainly of our core information technology professionals as well as consultants, designers, architects, engineers and trainers.

We serve our customers through on-site, off-site and offshore locations across the world and use strategically located delivery centers to offer a strong, diversified and cost-effective delivery platform. In the normal course of business, we may relocate or assist in relocating our employees as business needs arise, new office geographies are added or customer engagements require teams to be available in particular locations.

Our largest delivery location, measured by the number of delivery professionals, continues to be Ukraine where we have 9,113 delivery professionals as of December 31, 2023. However, the attack on Ukraine and its people by Russian forces beginning on February 24, 2022 shifted the way we operate in this and other locations. Our highest priority is the safety and security of our employees and their families in Ukraine as well as in the broader region, and we have continued to support relocating our employees to lower risk locations, both inside Ukraine and to other countries where we operate. The vast majority of our Ukraine employees are in safe locations and despite the war, our operations in Ukraine have not been materially impacted and our teams remain highly focused on maintaining uninterrupted production.

In response to the war in Ukraine, we continue to execute our business continuity plans and have sustained our hiring efforts across multiple locations in Central and Eastern Europe, Central and Western Asia, India, and Latin America. As of December 31, 2023, we employ delivery professionals in more than 50 countries. Our second and third largest delivery locations are now India and Poland with approximately 7,050 and 5,400 delivery professionals, respectively, as of December 31, 2023. Our global delivery centers in Ukraine and throughout the world have sufficient resources, including infrastructure and capital, to support ongoing operations.

During 2022, a significant number of our employees in Russia and Belarus relocated. On March 4, 2022, we announced our decision to discontinue our services to customers located in Russia and on July 26, 2023, we completed the sale of our remaining holdings in Russia to a third-party. As of December 31, 2023 we no longer have employees or operations in Russia. As of December 31, 2023, we employ approximately 3,500 delivery professionals in Belarus and we expect to continue operating in Belarus.

Human Capital

Our employees are a key factor in our ability to grow our revenues and serve our customers. We believe the quality of our employees serves as a key point of differentiation in how we deliver a superior value proposition to our customers and investors. Therefore, it is critical to our success that we are able to identify, attract, hire and retain delivery professionals who are highly skilled in information technology to execute our services, as well as individuals with appropriate skills to fill our executive, finance, legal, human resources and other key management positions. To attract, retain and motivate our employees, we offer a challenging work environment, a culture that values the individual, ongoing skills development initiatives, attractive career advancement with continuous rotation and promotion opportunities while providing an environment and culture that rewards entrepreneurial initiative and performance. As of December 31, 2023, 2022 and 2021, we had approximately 53,150, 59,300, and 58,800 employees, respectively, of which approximately 47,350, 52,850, and 52,600 were delivery professionals, respectively.

Health, Safety, and Wellness: We invest in programs designed to improve the physical, mental, and social well-being of our employees so we can offer a safe, welcoming, and productive workplace that supports and enhances the work-life balance and wellness of our employees. Our health and safety programs are designed to comply with the regulations in the multiple cities and countries where we operate, but also provide working conditions that are compatible with the necessities of our delivery and administrative operations, whether our employees choose to work remotely or in EPAM's or our customers' offices.

Recruitment, Training and Utilization: As an innovation-driven business in a competitive industry, our success depends on hiring the most talented employees, training and developing that talent, and deploying them to satisfy customer demand. We have dedicated full-time employees who oversee all aspects of our human capital management process including talent acquisition teams to locate and attract qualified and experienced professionals around the world. Our employees are a critical asset, necessary for our continued success and, therefore, we are continuously exploring new geographies, markets, and sources to locate talented personnel and present them with competitive compensation programs and educational opportunities.

We actively monitor how we utilize our delivery professionals and specialists to balance the needs of our customers with the availability, location, and skill sets of our employees and their need for diverse and challenging work. We manage utilization through strategic hiring and efficient staffing of projects for our customers. For the years ended December 31, 2023, 2022 and 2021, the utilization rates of our delivery professionals were approximately 74.3%, 75.8%, and 78.7%, respectively.

EPAM invests significant resources in training and developing our employees through our learning and development programs. Our largest learning and development investment has been directed towards developing our engineering talent, including targeted training programs, innovation labs, and significant internal production projects. Our employees consumed 2.6 million learning hours in 2023. We deliver training and development opportunities and content through our unique learning ecosystem that promotes learning in the daily workflow to improve retention and productivity, and through dedicated events, including our week-long global learning event, which delivered approximately 129 online sessions.

We deliver learning and development content through proprietary platforms that are available to all of our employees. Our digital learning platform provides our employees with a recommendation engine that suggests courses and materials based on employee role, level, location and skills. Our electronic library platform makes books and publications available to all of our employees and we celebrate learning achievements through our recognition portal, where we promote our employees' learning accomplishments and employees can recognize each other for their teamwork, initiative, and unique, valuable skills.

Diversity and Inclusion: EPAM provides our customers with the skills of our talented personnel, which includes people with varied and diverse backgrounds and characteristics, to drive innovation and thought diversity in delivering our services. We believe that innovation comes from the unique perspectives, knowledge, and experiences of our global employees, so we strive to create diversity and inclusivity by supporting employee affinity groups, offering comprehensive language learning programs, highlighting and sharing our varied cultures, and empowering women and underrepresented groups to celebrate their achievements in the workplace.

Increasing diversity in executive and key operational leadership roles is an organizational priority that starts at the top of our organization. Women currently represent approximately 44% of the independent directors on our Board and we have developed programs to identify, retain, mentor, and supply a pipeline of qualified, diverse candidates at all levels of our Company. Our programs include dedicating resources and personnel in our talent acquisition team to identify, recognize, and use diverse and inclusive sources for hiring, including associating with organizations that are focused on promoting underrepresented groups in engineering, IT, and business. Our Emerging Engineers Lab is an internship program for entry-level talent sourced from a variety of diverse technology programs across the U.S., Canada and Mexico. We also supplemented our mandatory annual training and global learning week event with materials geared towards eliminating unconscious bias in our professional interactions and recognizing the value of diversity in organizational success.

We encouraged the creation of employee affinity groups to build an inclusive and supportive culture at EPAM for groups of employees with similar backgrounds, interests, and identities to grow and thrive professionally. Recognizing that improving the number of underrepresented people in the software and technology industries starts with access to science, technology, engineering, and mathematics ("STEM") education, EPAM has created post-secondary STEM education certification programs and is investing in universities that offer degree programs. We also created the EPAM E-KIDS program where our employees volunteer their time to teach elementary school age children of any gender, race, or ethnic identity STEM concepts and introductory software coding skills. As of the end of 2023, we offered the EPAM E-KIDS program in 27 countries.

Employee Engagement and Retention: As a participant in the United Nations Global Compact, we are committed to respecting our employees' fundamental human rights at work. We believe that retaining skilled talent requires substantially more than meeting basic employment and labor rights, and that employees who are fairly compensated, feel supported in their career development, and are engaged with their employer are more likely to remain with that employer. That is why we strive to provide pay and benefits that demonstrate the value of our employees to us, including a competitive salary, flexible work-life balance, paid time off, health coverage, ongoing training programs, relocation options, and recognition opportunities for open-source software contributions.

Our career development programs create detailed and progressive training plans for our employees and help them choose from internal and external training options, mentoring programs, and hands-on opportunities to experience emerging technology areas. We designed our career development programs to enable our employees to develop their engineering skills, influence our culture, develop thought leadership, and introduce them to leaders in our industry. Our career development programs also give our employees opportunities to earn accreditation and relevant expertise in various technology fields, including software and project management certifications and recognition and credentialing from the industry's primary software and cloud services providers.

We focus on retaining and engaging top talent by hiring people with the skill sets our customers need and who also share our values so we can build long-term employee satisfaction, which is supported by our voluntary attrition rate of 8.6%, 13.8%, and 13.3% in 2023, 2022 and 2021, respectively. We endeavor to recruit for careers, not for short-term projects, and actively foster feedback from our employees so we can improve the EPAM employee experience. Receiving and learning from employee feedback plays a critical role in engaging and retaining our employees because it offers us insights on how we can improve our operations and enhance the skills of our employees. Our employees have demonstrated their satisfaction with our approach by giving their highest percentage of positive responses in our 2023 employee survey when asked if they can easily get support from their colleagues (93%), and if they feel that EPAM provides a supportive environment for all employees, regardless of gender, race, background, religion, or other personal traits (90%), and if they get management support (90%). Our focus on our employees' experience is recognized inside and outside of EPAM. In 2023, the employee experience we create was recognized with awards from a number of different organizations in North America, Europe, and Asia, and we were named on Newsweek's list of Top 100 Most Loved Workplaces for the third consecutive year and recognized by Glassdoor as a Best Workplace in 2023 and 2024.

Sales and Marketing

We market and sell our services through our senior management, sales and business development teams, account managers, and professional staff. Our client service professionals and account managers, who maintain direct customer relationships, play an integral role in engaging with current customers to identify and pursue potential business opportunities. This strategy has been effective in promoting repeat business and growth from within our existing customer base and we believe that our reputation as a reliable provider of software engineering solutions drives additional business from inbound requests and referrals. In addition to effective client management, our sales model also utilizes an integrated sales and marketing approach that leverages a dedicated sales team to identify and acquire new accounts.

We maintain a marketing team, which coordinates corporate-level branding efforts such as participation in and the hosting of industry conferences and events as well as sponsorship of programming competitions. We have been recognized by many top global independent research agencies, such as Forrester and Gartner and by publications such as Newsweek, Forbes and Fortune. We are proud to be among the top 15 companies in Information Technology Services in the Fortune 1000 and to be recognized as a leader in the IDC MarketScapes for Worldwide Experience Build Services, Worldwide Experience Design Services and Worldwide Software Engineering Services.

Competition

The markets in which we compete are changing rapidly and we face competition from multiple market participants such as other global technology solutions providers, specialized consulting firms, boutique digital companies and outsourcing companies based primarily in specific geographies with lower cost labor such as Eastern Europe, India and China. We believe that the principal competitive factors in our business include technical expertise and industry knowledge, end-to-end solution offerings, a reputation for and a track record of high-quality and on-time delivery of work, effective employee recruiting, training and retention, responsiveness to customers' business needs, ability to scale, financial stability and price.

We face competition from various technology services providers such as Accenture, Atos, Capgemini, Cognizant Technology Solutions, Deloitte Digital, DXC Technology, Endava, Genpact, GlobalLogic, Globant, Grid Dynamics, HCL Technologies, Infosys, Tata Consultancy Services, and Wipro, among others. Additionally, we compete with numerous smaller local companies in the various geographic markets in which we operate.

We believe that our focus on complex and innovative software product development solutions, our technical employee base, and our development and continuous improvement in process methodologies, applications and tools position us well to compete effectively in the future.

Quality Management and Information Security

We are continuously investing in systems, applications, tools and infrastructure to manage all aspects of our global delivery process in order to manage quality and information security risks, while providing control and visibility across all project lifecycle stages both internally and to our customers. We have developed sophisticated project management techniques and procedures facilitated through our proprietary project management tools, a web-based collaborative environment for software development, which we consider critical for visibility into project deliverables, resource management, team messaging and project-related documents. These tools promote collaboration and effective oversight, reduce work time and costs, and increase quality for our IT management and our customers.

We maintain, monitor, and improve processes and infrastructure to protect our, our customers' and their customers' confidential and sensitive information and allocate internal and external resources to assess and ensure information security, cybersecurity and data privacy. We have made significant investments in the appropriate people, processes and technology to establish and manage information security, confidentiality requirements, and laws and regulations governing our activities, such as the European Union data protection legal framework referred to as the General Data Protection Regulation ("GDPR"), the California Consumer Privacy Act and California Privacy Rights Act, and others.

We maintain a focus on adhering to stringent security, privacy and quality standards as well as internal controls which are compliant with ISO 27001, ISO 27701 and ISO 9001 standards. For certain services, EPAM obtains SOC1, SOC2, and/or SOC3 reports and shares them with our customers. These audits are performed by an independent auditor utilizing globally recognized attestation standards (ISAE 3402 and ISAE 3000). Our SOC reports, along with other certifications we hold, provide our customers with independent third-party assurance and validation of our information security, privacy management, quality management and general controls practices.

Corporate and Social Responsibility and Environmental, Social, and Governance Initiatives

We are committed to integrating positive social, environmental and ethical practices into our business operations, corporate governance, and strategy. This commitment is key to our continual development as a business and drives value for our employees, customers, business partners, the community and other stakeholders. We practice the principles established in our Code of Ethical Conduct by making positive contributions to the communities in which we operate and championing corporate social responsibility efforts.

Through our focused efforts in the areas of Education, Environment, and Community, we are committed to sharing the expertise and attributes of our highly skilled global workforce to effectively support the needs of, and positively add to the world at large and the communities where we work and live. By understanding our impact on local, regional and global communities, we strive to create positive change and opportunities in areas where it is needed most.

We believe responsible stewardship of the environment is critical, and we take this responsibility seriously. We continually strive to improve our environmental performance through implementation of sustainable development and environmental practices including recycling and upcycling electronics and computers, designing and releasing a carbon footprint calculator to our employees and the general public, and building new offices according to the conservation standards of the Leadership in Energy and Environmental Design rating system. EPAM was named one of Barron's 100 Most Sustainable Companies in 2022.

Intellectual Property

Protecting our intellectual property rights is important to our business. We have invested, and will continue to invest, in research and development to enhance our knowledge, create solutions for our customers, and continuously advance our information security. We rely on a combination of intellectual property laws, trade secrets, cybersecurity, and confidentiality obligations to protect our intellectual property. We require our employees, vendors and independent contractors to enter into written agreements upon the commencement of their relationships with us, which assign to us all deliverable intellectual property and work product made, developed or conceived by them in connection with their employment or provision of services and to keep any disclosed information confidential.

We also enter into confidentiality agreements with our customers and suppliers to protect information and maintain information security. Our agreements with our customers cover our use of their software systems and platforms as our customers usually own the intellectual property in the software, products, and solutions we develop for them. Furthermore, we often grant our customers a nonexclusive license to use relevant technologies in our pre-existing intellectual property portfolio, but only to the extent necessary to use the software or systems we develop for them. Our suppliers are generally bound by our supplier code of conduct, which imposes an obligation to protect our and our customers' intangible assets, including confidential information, personal information, and intellectual property, and to protect the security of those assets.

Regulations

Due to the industry and geographic diversity of our operations and services, our operations are subject to a variety of rules and regulations. Several foreign and U.S. federal and state agencies regulate various aspects of our business. See "Item 1A. Risk Factors — Risks Related to Regulation and Legislation and Risks Related to Information Security and Data Protection." We are subject to laws and regulations in the United States and other countries in which we operate, including export restrictions, economic sanctions, the Foreign Corrupt Practices Act ("FCPA") and similar anti-corruption laws and data privacy regulations. Compliance with these laws requires significant resources and non-compliance may result in civil or criminal penalties and other remedial measures.

Corporate Information

EPAM Systems, Inc. was incorporated in the State of Delaware on December 18, 2002. Our predecessor entity was founded in 1993. Our principal executive offices are located at 41 University Drive, Suite 202, Newtown, Pennsylvania 18940 and our telephone number is 267-759-9000. We maintain a website at <https://www.epam.com>. Our website and the information accessible through our website are not incorporated into this Annual Report on Form 10-K.

We make certain filings with the Securities and Exchange Commission ("SEC"), including our Annual Report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and all amendments and exhibits to those reports. These filings are available through the SEC's website at <https://www.sec.gov> which contains reports, proxy and information statements, and other information regarding issuers that file electronically through the SEC's EDGAR System. We also make such filings available free of charge through the Investor Relations section of our website, <https://investors.epam.com>, as soon as reasonably practicable after they are filed with the SEC.

Item 1A. Risk Factors

Our operations and financial results are subject to various risks and uncertainties that could adversely affect our business, financial condition, results of operations, cash flows, and the trading price of our common stock. Listed below, not necessarily in order of importance or probability of occurrence, are the most significant risk factors applicable to us. Additionally, forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified. See “Forward-Looking Statements.”

Risks Related to Geopolitical Events

Instability in geographies where we have significant operations and personnel or where we derive substantial amounts of revenue could have a material adverse effect on our business, customers, service delivery, and financial results.

We have significant operations and personnel in Ukraine and Belarus. Ongoing conflict and disruption in the region following Russia’s invasion of Ukraine in February 2022 has had and could continue to have a material adverse effect on our business, customers, service delivery, and financial results.

Economic, civil, military, energy supply and political uncertainty exists and may increase in many of the regions where we operate and derive our revenues. In particular, as of December 31, 2023, approximately 12,600 of our global delivery, administrative and support personnel were based in Ukraine and Belarus, both of which are involved in or affected by Russia’s invasion of Ukraine. While a significant number of our employees from Belarus and from our former operations in Russia have relocated, and we expect more employees may relocate to our other delivery locations in the future, we expect to continue operating in Ukraine and Belarus and we also have significant operations in bordering countries and in countries allied with Russia in the nearby emerging market economies of Eastern Europe and Central Asia, which currently are, and in the future may be, adversely impacted by regional instability.

In addition to a significant number of personnel and operations in Ukraine, we also own an office building in Kyiv and lease office space in a number of cities in Ukraine, all or some of which may be damaged or destroyed as a result of the continued attacks against Ukraine. Any escalation of the conflict that includes Belarus or its military could jeopardize our personnel, facilities, and operations in Belarus. The impact to Ukraine, as well as actions taken by other countries, including arms shipments and new and stricter sanctions by Canada, the United Kingdom, the European Union and its member countries, the U.S. and other countries and organizations against officials, individuals, regions, and industries in the annexed portions of Ukraine and Belarus, and responses to such shipments, sanctions, tensions, and military actions has had and could continue to have a material adverse effect on our operations.

In order to protect against potential cyberattacks or other information security threats, some of our customers have implemented steps to block internet communications with Ukraine and Belarus, which has had a material adverse effect on our ability to deliver our services from those locations. Our customers have sought and may continue to seek altered terms, conditions, and delivery locations for the performance of services, delay planned work or seek services from alternate providers, or suspend, terminate, fail to renew, or reduce existing contracts or services, all of which could have a material adverse effect on our financial condition. The material adverse effects from the conflict, enhanced sanctions activity, and counter-sanctions may continue to disrupt our delivery of services, has caused us to shift portions of our work occurring in the region to other countries, and may continue to restrict our ability to engage in certain projects or with certain customers.

EPAM is actively monitoring and enhancing the security of our people and the stability of our infrastructure, including communications, physical assets, energy supply, and internet availability. Our business continuity plans are designed to address known contingency scenarios to ensure that we have adequate processes and practices in place to protect the safety of our people and to handle anticipated impacts on our delivery capabilities. Our crisis management procedures, business continuity plans, and disaster recovery capabilities may not be effective at preventing or mitigating the effects of prolonged or multiple crises, such as civil unrest, military conflict, energy instability and a pandemic in a concentrated geographic area or in multiple geographies. We continue to execute our business continuity plans in response to developments as they occur and to protect the safety of our personnel and address potential impacts on our delivery infrastructure. To date we have not experienced any material interruptions in our infrastructure, utility supply or internet connectivity needed to support our customers. We implemented contingency plans to relocate work and/or personnel to other geographies within our global footprint and add new locations, as appropriate. Increased operations, service delivery, and hiring in existing or new geographies, including in more developed economies, has and is likely to continue to increase our expenses, especially compensation expenses for technology professionals in those markets, which could reduce the profitability of our business.

Events in the regions where we operate have and could continue to pose security risks to our people, our facilities, our operations, and our infrastructure, such as utilities and network services, and the further disruption of any or all of them could materially adversely affect our operations and financial results, cause additional volatility in the price of our stock, and reduce our profitability. We have no way to predict the progress or outcome of the war in Ukraine or its impacts in Belarus or the region because the conflict and government reactions are rapidly changing and beyond our control. Whether in these countries or in others in which we operate, prolonged civil unrest, political instability or uncertainty, military activities, broad-based sanctions or counter-sanctions, should they continue for the long-term or escalate, could require us to further rebalance our geographic concentrations and could have a material adverse effect on our personnel, operations, financial results and business outlook.

Risks Related to Our Personnel and Growth

We may be unable to effectively manage our growth or achieve anticipated growth, which could place significant strain on our management, systems, resources, and results of operations.

We have experienced uneven growth and expansion of our business over the past several years. Our growth and expansion has been both organic and through strategic acquisitions and investments and has resulted in part from managing larger and more complex projects for our customers, but consequently requires that we invest substantial amounts of cash in human capital and the infrastructure to support them, including training, administration, and facilities in existing and new geographies. Our growth has significantly slowed at times, particularly during 2023, due to waning customer demand, primarily due to uncertainty resulting from macroeconomic conditions following the COVID-19 pandemic. Rapid growth followed by decreased demand places significant strain on our management and our administrative, operational and financial infrastructure, and creates challenges, including:

- recruiting, training and retaining sufficiently skilled professionals and management personnel and balancing headcount with customer requirements;
- balancing an increase in the number of experienced personnel that have correspondingly higher billing rates due to promotions with hiring, training, and deploying less experienced personnel at the lower rates sought by customers;
- planning and maintaining resource utilization rates consistently and efficiently using on-site, off-site and offshore staffing;
- developing and maintaining close and effective relationships with potential and existing customers in a greater number of industries and locations;
- controlling costs and minimizing cost overruns and project delays in our delivery operations and infrastructure;
- effectively maintaining productivity levels and implementing process improvements across geographies and business units during periods of uneven customer demand; and
- evolving our information security and our internal administrative, operational and financial infrastructure.

If customers do not choose us for large and complex projects or we do not effectively manage those projects, our reputation may be damaged and our business and financial goals will not be realized. We need to generate business and revenues to support new investments and infrastructure projects. We have and will continue to invest in new lines of business, such as software development education, AI, and expanded consulting services. As we introduce new services, enter into new markets and new customer relationships, and take on increasingly large and complex projects, our business will face new risks and challenges. Expansion into direct-to-consumer offerings in the highly regulated education industry and joint venture relationships with our customers could result in increased liability, start-up, and compliance costs. If the challenges associated with expansion and new investments negatively impact our anticipated growth and margins, our business, prospects, financial condition and results of operations could be materially adversely affected.

We must successfully attract, hire, train and retain qualified personnel to service our customers' projects and we must productively utilize those personnel to remain profitable.

Identifying, recruiting, hiring and retaining professionals with skill sets that meet our existing and anticipated demand across our broad geography of operations is critical to maintaining existing engagements and obtaining new business and has become more challenging in the changing economic and labor climate. If we are unable to recruit professionals with the skills required by our business and customers and/or if we do not productively deploy those professionals and use our physical infrastructure and fixed-cost resources productively, our profitability will be significantly impacted. We must manage the utilization levels of the professionals that we hire and train by planning for future needs effectively and staffing projects appropriately while accurately predicting the general economy and our customers' need for our services. If we are unable to attract, hire, train, and retain highly skilled personnel and productively deploy them on customer projects, we will jeopardize our ability to meet our customers' expectations and develop ongoing and future business, which could adversely affect our financial condition and results of operations.

Competition for highly skilled professionals has intensified in the markets where we operate, and we may experience significant employee turnover rates due to such competition. Higher wage expectations driven by wage inflation could also create challenges for our recruiting efforts. If we are unable to retain professionals with specialized skills, our revenues, operating efficiency and profitability will decrease, as will our ability to meet emerging technological challenges. Cost reductions, such as reducing headcount or voluntary departures that result from our failure to retain the professionals we hire, negatively affect our reputation as an employer and our ability to hire personnel to meet our business requirements. Price increases resulting from increasing compensation to retain personnel may be a contributing factor in a decline in demand for our services.

If we are unable to keep pace with the adoption and use of generative AI technology in our business and effectively implement generative AI in our workforce planning and deployment, we could become less competitive in our industry.

We are increasingly incorporating AI, and particularly generative AI, into our products, services, and business, both due to customer demand and because we expect that integrating generative AI into our services is required to remain competitive in a rapidly evolving market. We have made and expect to continue to make significant development and operations investments to build and support AI capabilities, products, and services so that we can meet the needs of our customers and remain competitive in our industry. If we are unable or slow to develop, adopt, and deploy generative AI technologies in our business, our competitiveness against our industry peers will suffer.

Generative AI technologies could disrupt the significant effort we put into identifying, recruiting, hiring, retaining, and efficiently utilizing our professionals and our ability to charge for their services. Our customers have asked, and may come to expect, that we use generative AI to develop software for them at comparatively lower costs than software developed by our human delivery personnel. As we plan, develop, and implement changes to our delivery model to balance those services that can only be performed by humans against those that can be performed by generative AI, we may have insufficient or excess delivery personnel than required to meet customer demand. Customers may be unwilling to pay rates for human delivery personnel if they perceive that the same services can be performed by less expensive generative AI and may seek other service providers or price concessions to retain their business, which could adversely affect our financial results.

There may be adverse tax and employment law consequences if the independent contractor status of some of our personnel or the exempt status of our employees is successfully challenged.

In several countries, certain of our personnel and certain of the personnel of companies that we have acquired are retained as independent contractors. The criteria to determine whether an individual is considered an independent contractor or an employee are typically fact sensitive, vary by jurisdiction, and are subject to change and interpretation. If a government authority changes the applicable laws or a court makes an adverse determination with respect to independent contractors in general or one or more of our independent contractors specifically, we could incur significant costs, including for prior periods, related to tax withholding, social security taxes or payments, workers' compensation and unemployment contributions, and recordkeeping, or we may be required to modify our business model, any of which could materially adversely affect our business, financial condition and results of operations and increase the difficulty of attracting and retaining personnel.

Our success depends substantially on the continuing efforts of our senior executives and other key personnel, and our business may be severely disrupted if we lose their services.

Our future success heavily depends upon the continued services of our senior executives and other key employees. If one or more of our senior executives or key employees are unable or unwilling to continue in their present positions, we may not be able to replace them easily or at all. If any of our senior executives or key personnel joins a competitor or forms a competing company, we may lose customers, suppliers, know-how and other key personnel to those competitors. If we are unable to attract new senior executives or key personnel due to the intense competition for talent in our industry, it could disrupt our business operations and growth.

If we fail to integrate or manage acquired companies efficiently and effectively, or if acquisitions do not perform to our expectations, our overall profitability and growth plans could be materially adversely affected.

Strategic acquisitions are part of our growth strategy, but these transactions involve significant risks. Acquired companies may not advance our business strategy or achieve a satisfactory return on our investment and we may not be able to successfully integrate acquired employees, businesses, company cultures, customer relationships, or operations. In addition, we may need to implement controls, processes, and policies appropriate for a multi-national public company at acquired companies that may have previously lacked such controls, processes, and policies in areas such as cybersecurity, IT, and privacy. Acquisitions divert significant management attention and financial resources from our ongoing business. Furthermore, contracts between our acquired companies and their customers sometimes lack terms and conditions that adequately protect us against the risks associated with the services we provide, and our acquired companies' business operations can expose us to potential liability before integration is complete. If not effectively managed, the disruption of our ongoing business, increases in our expenses, including significant one-time expenses and write-offs, assumption of unknown liabilities, including tax, litigation, cybersecurity, and commercial risks, and difficulty and complexity of effectively integrating acquired operations may adversely affect our overall growth and profitability.

Risks Related to Our Operations

Increases in wages, equity compensation, and other compensation expenses could prevent us from sustaining our competitive advantage, increase our costs, and result in dilution to our stockholders.

Wages for technology professionals in the emerging markets where we have significant operations and delivery centers are lower than comparable wages in more developed countries. However, wages in general, and in the technology industry in emerging markets in particular, have increased at a faster rate than in the past, which will make us less competitive if we are not able to increase the efficiency and productivity of our people. If we increase operations and hiring in more developed economies, our compensation expenses will increase because of the higher wages demanded in those markets. Wage inflation, whether driven by competition for talent, ordinary course pay increases, or broader market forces, all increase our cost of providing services and reduce our profitability when we are not able to pass those costs on to our customers or adjust prices when justified by market demand.

We expect to continue granting equity-based awards under our stock incentive plans and paying other stock-based compensation. There are significant expenses associated with issuing stock-based compensation under our equity incentive plans, but if we reduce the amount or value of equity award grants, we may not be able to attract and retain key personnel. Conversely, if we grant more or higher value equity awards to attract and retain key personnel, our equity compensation expenses could materially adversely affect our results of operations. Regulations restricting equity compensation, volatility in our stock, and dilution to our stockholders diminishes our use and the value of equity-based awards and puts us at a competitive disadvantage or causes us to reconsider our compensation practices.

Our operations in emerging markets subject us to greater economic, financial, and banking risks than we would face in more developed markets.

We have significant operations in emerging market economies in Eastern Europe, Latin and South America, India, and certain other Asian countries, all of which are more vulnerable to market and economic volatility than larger and more developed markets and present risks to our business and operations. A majority of our revenues are generated in North America and Western Europe. However, most of our personnel and delivery centers are located in lower cost locations, including emerging markets. This exposes us to foreign exchange risks relating to revenues, compensation, purchases, capital expenditures, receivables and other balance-sheet items. As we continue to leverage and expand our global delivery model into other emerging markets, a larger portion of our revenues and incurred expenses may be in currencies other than U.S. dollars. Currency exchange volatility caused by economic instability or other factors could materially impact our results. See "Item 7A. Quantitative and Qualitative Disclosures About Market Risk."

The economies of certain emerging market countries where we operate have experienced periods of considerable instability and have been subject to abrupt downturns. We have cash in banks in countries such as Belarus, Ukraine, Kazakhstan, Georgia, Armenia and Uzbekistan, where the banking sector generally does not meet the banking standards of more developed markets, bank deposits made by corporate entities are not insured, and the banking system remains subject to instability and changes in regulations that complicate business transactions. Some of the countries where we operate have sanctioned certain of the banks that we use in the emerging market economies where we also have operations, which has delayed our intercompany payments and could delay or prevent payments to vendors or receipts from customers. Further elongation or escalation of the military conflict in Ukraine could contribute to a banking crisis in Ukraine, Belarus, or the region. A banking crisis, or the bankruptcy or insolvency of banks that receive or hold our funds may result in the loss of our deposits or adversely affect our liquidity and our ability to complete banking transactions in that region. In addition, some countries where we operate may impose regulatory or practical restrictions on the movement of cash and the exchange of foreign currencies within their banking systems, which would limit our ability to use cash across our global operations and increase our exposure to currency fluctuations. Emerging market vulnerability, and especially its impact on currency exchange volatility and banking systems, could have a material adverse effect on our business, financial condition and results of operations.

We face intense and increasing competition for customers and opportunities from onshore and offshore IT services and other consulting companies. If we are unable to compete successfully against competitors, pricing pressures or loss of market share could have a material adverse effect on our business.

The market for our services is highly competitive, and we expect competition to persist and intensify. We face competition from offshore IT services providers in other outsourcing destinations with low wage costs, as well as competition from large, global consulting and outsourcing firms and in-house IT departments of large corporations. Customers tend to engage multiple IT services providers instead of using an exclusive IT services provider, which reduces our revenues and places downward pressure on pricing among competing IT services providers. Customers may prefer service providers that have more locations, more personnel, more experience in a particular country or market, or that are based in countries that are more cost-competitive or have the perception of being more stable than some of the emerging markets in which we operate.

Some of our present and potential competitors have substantially greater financial, marketing or technical resources; therefore, we may be unable to retain our customers or successfully attract new customers. Increased competition, our inability to compete successfully, pricing pressures or loss of market share could have a material adverse effect on our business.

Complying with a wide variety of legal requirements in the jurisdictions where we operate can create risks to our operations and financial condition, including liquidation of the subsidiaries that operate our major delivery centers.

Our global operations require us to comply with a wide variety of foreign laws and regulations, trade and foreign exchange restrictions, sanctions, inflation, unstable civil, political and military situations, labor issues, and legal systems that make it more difficult to enforce intellectual property, contractual, or corporate rights. Certain legal provisions in Belarus and Ukraine, where our local subsidiaries operate important delivery centers and employ a significant number of billable and support professionals, may allow a court to order liquidation of a locally organized legal entity on the basis of its formal noncompliance with certain requirements during formation, reorganization or during its operations. Belarus has authorized government seizures of property and assets or the takeover of management of commercial organizations owned by or affiliated with specified foreign states if those states or their affiliated companies or actors commit actions deemed unfriendly to Belarus. If we fail to comply with certain requirements, including those relating to minimum net assets, governmental or local authorities can impose fines or seek the involuntary liquidation of our local subsidiaries in court, and creditors will have the right to accelerate their claims, demand early performance of legal obligations, and demand compensation for any damages. Involuntary liquidation of any of our subsidiaries could materially adversely affect our financial condition and results of operations.

The focus on environmental, social and governance topics, including commitments and disclosures we have made and may need to make, may result in additional operational costs and negative reputational impacts.

Expectations from our customers, investors, employees, and regulators regarding our environmental, social, and governance, or ESG, strategy and commitments continue to evolve. As investor policy and sentiment changes, and regulations and legislation related to ESG disclosure and climate change initiatives are adopted and implemented regionally and globally, our compliance obligations may not be completely aligned with investor support for ESG investments. Failure to invest in and comply with ESG initiatives and regulations could limit our access to certain markets, result in fines, or cause reputational harm. Changes in policy and laws may require disclosures and commitments that we are not able to meet, and regulations, treaties or initiatives in response to climate change could result in increased operational costs associated with environmental regulations and increased compliance and energy costs, each of which could harm our business and results of operations by increasing our expenses or requiring us to alter our operations. Our processes and controls may not always comply with evolving standards for identifying, measuring, and reporting ESG metrics, including ESG-related disclosures that may be required of public companies by the SEC or other regulatory bodies, and such standards may change over time, which could result in significant revisions to our current goals, reported progress in achieving such goals, or ability to achieve such goals in the future. Additionally, if we are unable to meet our ESG goals and objectives, we could also face scrutiny from certain constituencies related to the scope and nature of those goals or any revisions to those goals, and we may suffer reputational harm with investors, our customers, and current or potential employees.

Our operating results may be negatively impacted by the loss of certain tax benefits provided to companies in our industry by the governments of Belarus and other countries.

In Belarus, one local subsidiary is a member, along with other technology companies, of High-Technologies Park. Members have a full exemption from Belarus income tax and value added tax until 2049 and are taxed at reduced amounts on obligatory social contributions and a variety of other taxes. If the tax policies in Belarus or other countries where we operate are changed, terminated, or not extended or comparable new tax incentives are not introduced, we expect that our operating expenses and/or our effective income tax rate could increase significantly, which could materially adversely affect our financial condition and results of operations. See “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations - Provision for Income Taxes.”

Risks Related to Regulation and Legislation

Existing policy and substantial changes to fiscal, political, regulatory and other federal policies may adversely affect our business and financial results.

Changes in general economic or political conditions in the United States, including a recession, government shutdown, or a sovereign debt default, could adversely affect our business. U.S. policy with respect to a variety of issues, including AI, international trade agreements, conducting business offshore, inflation mitigation, interest rates, import and export regulations, tariffs and customs duties, foreign relations, immigration laws and travel restrictions, antitrust controls and enforcement, and corporate governance laws, could have a positive or negative impact on our business.

The majority of our professionals are offshore. Companies that outsource services to organizations operating in other countries remain a topic of political discussion in many countries, including the United States, which is our largest source of revenues. The U.S. Congress periodically proposes legislation that could impose restrictions on offshore outsourcing and on our ability to deploy employees holding U.S. work visas to customer locations, both of which could adversely impact our business. Such legislative measures could broaden restrictions on outsourcing by federal and state government agencies and contracts and impact private industry with tax disincentives, intellectual property transfer restrictions, and restrictions on the use or availability of certain work visas.

Some of our projects require our personnel to obtain visas to travel and work at customer sites outside of our personnel’s home countries and often in the United States. Our reliance on visas to staff projects with employees who are not citizens of the country where the work is to be performed makes us vulnerable to legislative and administrative changes in the number of visas to be issued in any particular year and other work permit laws and regulations. The process to obtain the required visas and work permits can be lengthy and difficult and variations due to political forces and economic conditions in the number of permitted applications, as well as application and enforcement processes, may cause delays or rejections when trying to obtain visas. Delays in obtaining visas or other work authorizations may result in delays in the ability of our personnel to travel to meet with and provide services to our customers or to continue to provide services on a timely basis. In addition, the availability of a sufficient number of visas without significant additional costs could limit our ability to provide services to our customers on a timely and cost-effective basis or manage our sales and delivery centers as efficiently as we otherwise could. Delays in or the unavailability of visas and work permits could have a material adverse effect on our business, results of operations, financial condition and cash flows.

We are subject to laws and regulations in the United States and other countries in which we operate, including export restrictions, economic sanctions, the FCPA, and similar anti-corruption laws. Compliance with these laws requires significant resources and non-compliance may result in civil or criminal penalties and other remedial measures.

We are subject to many laws and regulations that restrict our international operations, including laws that prohibit activities involving restricted countries, organizations, entities and persons that have been identified as unlawful actors or that are subject to U.S. sanctions. The U.S. Office of Foreign Assets Control, or OFAC, and other international bodies have imposed sanctions that prohibit us from engaging in trade or financial transactions with certain countries, businesses, organizations and individuals. We are also subject to the FCPA and anti-bribery and anti-corruption laws in other countries, all of which prohibit companies and their intermediaries from bribing government officials for the purpose of obtaining or keeping business or otherwise obtaining favorable treatment. We operate in many parts of the world that have experienced government corruption to some degree, and, in certain circumstances, strict compliance with anti-bribery laws may conflict with local customs and practices, although adherence to local customs and practices is generally not a defense under U.S. and other anti-bribery laws.

Our compliance program contains controls and procedures designed to ensure our compliance with the FCPA, OFAC and other sanctions, and laws and regulations. The continuing implementation and ongoing development and monitoring of our compliance program may be time consuming, expensive, and could result in the discovery of compliance issues or violations by us or our employees, independent contractors, subcontractors or agents of which we were previously unaware.

Any violations of these or other laws, regulations and procedures by our employees, independent contractors, subcontractors and agents, including third parties with which we associate or companies we acquire, could expose us to administrative, civil or criminal penalties, fines or business restrictions, which could have a material adverse effect on our results of operations and financial condition and would adversely affect our reputation and the market for shares of our common stock and may require certain of our investors to disclose their investment in us under certain state laws.

Risks Related to Our Industry and Customers

We generally do not have long-term commitments from our customers, our customers may terminate contracts before completion or choose not to renew contracts, and we are not guaranteed payment for services performed under contract. A loss of business or non-payment from significant customers could materially affect our results of operations.

Our ability to maintain continuing relationships with our major customers and successfully obtain payment for our services is essential to the growth and profitability of our business. However, the volume of work performed for any specific customer is likely to vary from year to year, especially since we generally are not our customers' exclusive IT services provider and we generally do not have long-term commitments from customers to purchase our services. We may also fail to assess the creditworthiness of our customers adequately or accurately. Our customers' ability to terminate engagements with or without cause and our customers' inability or unwillingness to pay for services we performed makes our future revenues and profitability uncertain. Although a substantial majority of our revenues are generated from customers who also contributed to our revenues during the prior year, our engagements with our customers are typically for projects that are singular in nature. Therefore, we must seek to obtain new engagements when our current engagements end.

There are a number of factors relating to our customers that are outside of our control, which might lead them to terminate or not renew a contract or project with us, or be unable to pay us, including:

- financial difficulties, including customer insolvency or bankruptcy or increased global inflationary pressures and interest rates;
- corporate restructuring, or mergers and acquisitions activity;
- our inability to complete our contractual commitments and invoice and collect our contracted revenues;
- change in strategic priorities or economic conditions, resulting in elimination of the impetus for the project or a reduced level of technology related spending;
- change in outsourcing strategy resulting in moving more work to the customer's in-house technology departments or to our competitors; and
- replacement of existing software with packaged software supported by licensors.

Termination, non-renewal, or renegotiation of a customer contract or delayed starts to projects could cause us to experience a higher-than-expected number of unassigned employees and thus compress our margins until we are able to reallocate our headcount. Customers that delay payment, request modifications to their payment arrangements, or fail to meet their payment obligations to us could increase our cash collection time, cause us to incur bad debt expense, or cause us to incur expenses in collections actions. The loss of any of our major customers, a significant decrease in the volume of work they outsource to us or price they are willing or able to pay us, if not replaced by new service engagements and revenues, could materially adversely affect our revenues and results of operations.

Our revenues are highly dependent on a limited number of industries, and any decrease in demand for outsourced services in these industries could reduce our revenues and adversely affect our results of operations.

A substantial portion of our customers are concentrated in five specific industry verticals: Financial Services; Software & Hi-Tech; Business Information & Media; Travel & Consumer; and Life Sciences & Healthcare. Our business growth largely depends on continued demand for our services from customers in these five industry verticals and other industries that we target or may target in the future, and also depends on trends in these industries to outsource the type of services we provide.

A downturn in any of our targeted industries, a slowdown or reversal of the trend to outsource IT services in any of these industries or the introduction of regulations that restrict or discourage companies from outsourcing could result in a decrease in the demand for our services and could have a material adverse effect on our business, financial condition and results of operations. Some of our customers in the Software & Hi-Tech industry vertical have experienced lay-offs, depressed stock prices, higher borrowing costs, and lower consumer spending on technology products and services which has resulted in reduced spending on our and other outsourced services. Other developments in the industries in which we operate may increase the demand for lower cost or lower quality IT services and decrease the demand for our services or increase the pressure our customers put on us to reduce pricing. We may not be able to successfully anticipate and prepare for any such changes, which could adversely affect our results of operations.

Furthermore, developments in the industries we serve could shift customer demand to new services, solutions or technology. If our customers demand new services, solutions or technologies, we may be less competitive in these new areas or may need to make significant investments to meet that demand. Additionally, as we expand into serving new industry verticals, our solutions and technology may be used by, or generally affect, a broader base of customers and end users, which may expose us to new business and operational risks.

If our pricing structures are based on inaccurate expectations and assumptions regarding the cost and complexity of performing our work, or if we are not able to maintain favorable pricing for our services, then our contracts could be unprofitable.

We face a number of risks when pricing our contracts and setting terms with our customers. Our pricing is highly dependent on our internal forecasts, assumptions and predictions about our projects, the marketplace, global economic conditions (including foreign exchange volatility and inflation) and the coordination of operations and personnel in multiple locations with different skill sets and competencies. Larger and more complex projects that involve multiple engagements or stages heighten those pricing risks because a customer may choose not to retain us for additional stages or delay forecasted engagements, which disrupts our planned project resource requirements. If our pricing for a project includes dedicated personnel or facilities and the customer were to slow or stop that project, we may not be able to reallocate resources to other customers. Our pricing and cost estimates for the work that we perform may include anticipated long-term cost savings that we expect to achieve and sustain over the life of the contract. Because of such inherent uncertainties, we may underprice our projects, fail to accurately estimate the costs of performing the work or fail to accurately assess the risks associated with potential contracts, such as defined performance goals, service levels, and completion schedules. The risk of underpricing our services or underestimating the costs of performing the work is heightened in fixed-price contracts and in contracts that require our customer to receive a productivity benefit as a result of the services performed under the contract. If we fail to accurately estimate the resources, time or quality levels required to complete such engagements, or if the cost to us of employees, facilities, or technology unexpectedly increases, we could be exposed to cost overruns. Any increased or unexpected costs, delays or failures to achieve anticipated cost savings, or unexpected risks we encounter in connection with the performance of the services, including those caused by factors outside our control, could make these contracts less profitable or unprofitable.

Our industry is sensitive to the economic environment and the industry tends to decline during general economic downturns. Given our significant revenues from North America and Europe, if those economies weaken or enter a recession, pricing for our services may be depressed and our customers may reduce or postpone their technology related spending significantly, which may in turn lower the demand for our services and negatively affect our revenues and profitability.

We face risks associated with having a long selling and implementation cycle for our services that require us to make significant resource commitments prior to realizing revenues for those services.

We have a long selling cycle for our services. Before potential customers commit to use our services, they require us to expend substantial time and resources educating them on the value of our services and our ability to meet their requirements. Therefore, our selling cycle is subject to many risks and delays over which we have little or no control, including our customers' decision to select another service provider or in-house resources to perform the services, the timing of our customers' budget cycles, and customer procurement and approval processes. If our sales cycle unexpectedly lengthens for one or more large projects, it could negatively affect the timing of our revenues and our revenue growth. In certain cases, we may begin work and incur costs prior to executing a contract, which may cause fluctuations in recognizing revenues between periods or jeopardize our ability to collect payment from customers.

Implementing our services also involves a significant commitment of resources over an extended period of time from both our customers and us. Our current and future customers may not be willing or able to invest the time and resources necessary to implement our services, and we may fail to close sales with potential customers despite devoting significant time and resources. Any significant failure to generate revenues or delays in recognizing revenues after incurring costs related to our sales or services processes could have a material adverse effect on our business.

If we are unable to adapt to rapidly changing technologies, methodologies and evolving industry standards, we may lose customers and our business could be materially adversely affected.

Rapidly changing technologies, methodologies and evolving industry standards are inherent in the market for our products and services. Our ability to anticipate developments in our industry, enhance our existing services, develop and introduce new services, provide enhancements and new features for our products, and keep pace with changes and developments are critical to meeting changing customer needs. Developing solutions for our customers is extremely complex and is expected to become increasingly complex and expensive in the future due to the introduction of new platforms, operating systems, technologies and methodologies. Our ability to keep pace with, anticipate or respond to changes and developments is subject to a number of risks, including that:

- we may not be able to develop new, or update existing services, applications, tools and software quickly or inexpensively enough to meet our customers' needs;
- we may find it difficult or costly to make existing software and products work effectively and securely over the internet or with new or changed operating systems;
- we may find it challenging to develop new, or update existing software, services, and products to keep pace with evolving industry standards, methodologies, technologies, and regulatory developments in the industries where our customers operate at a pace and cost that is acceptable to our customers; and
- we may find it difficult to maintain high quality levels with new technologies and methodologies.

We may not be successful in anticipating or responding to these developments in a timely manner, or if we do respond, the services, products, technologies or methodologies we develop or implement may not be successful in the marketplace. Further, services, products, technologies or methodologies that our competitors develop may render our services or products non-competitive or obsolete. Our failure to enhance our existing services and products and to develop and introduce new services and products to promptly address the needs of our customers could have a material adverse effect on our business.

If we cause disruptions to our customers' businesses, provide inadequate service, or breach contractual obligations, our customers may have claims for substantial damages against us and our reputation may be damaged. Our insurance coverage may be inadequate to protect us against such claims.

Errors made by our professionals in the course of delivering services or our failure to meet our contractual obligations to a customer are disruptive to the customer's business and can expose confidential or personally identifiable information to third parties. These events have resulted and could in the future result in a reduction in our revenues, damage to our reputation, and in customers terminating our engagement and making claims for substantial damages against us. Some of our customer agreements do not limit our potential liability for occurrences such as breaches of confidentiality and intellectual property infringement indemnity, and we cannot generally limit liability to third parties with which we do not have a contractual relationship. In some cases, breaches of confidentiality obligations, including obligations to protect personally identifiable information, may entitle the aggrieved party to equitable remedies, including injunctive relief.

Although we maintain professional liability insurance, product liability insurance, cyber incident insurance, commercial general and property insurance, business interruption insurance, workers' compensation coverage, and umbrella insurance for certain of our operations, our insurance coverage does not insure against all risks in our operations or all claims we may receive. Damage claims from customers or third parties brought against us or claims that we initiate due to the disruption of our business, information security systems, litigation, or natural disasters, may not be covered by our insurance, may exceed the limits of our insurance coverage, and may result in substantial costs and diversion of resources even if insured. Some types of insurance are not available on reasonable terms or at all in some countries in which we operate, and we cannot insure against damage to our reputation. The assertion of one or more large claims against us, whether or not successful and whether or not insured, could materially adversely affect our reputation, business, financial condition and results of operations.

A significant failure in our systems, telecommunications or IT infrastructure could harm our service model, which could result in a reduction of our revenues and otherwise disrupt our business.

Our service model relies on maintaining active and stable utility connections, voice and data communications, online resource management, financial and operational record management, customer service and data processing systems between our customer sites, our delivery centers and our customer management locations. Our business activities may be materially disrupted in the event of a partial or complete failure of any of these technologies or systems, which could be due to software malfunction, computer virus attacks, conversion errors due to system upgrades, damage from fire, earthquake, power loss, military action, telecommunications failure, unauthorized entry, government shutdowns, demands placed on internet infrastructure by growing numbers of users, increased bandwidth requirements or other events beyond our control. Our crisis management procedures, business continuity, and disaster recovery plans may not be effective at preventing or mitigating the effects of such disruptions, particularly in the case of multiple or catastrophic events. Loss of all or part of the infrastructure or systems for a period of time could hinder our performance or our ability to complete customer projects on time which, in turn, could lead to a reduction of our revenues or otherwise materially adversely affect our business and business reputation.

Our ability to generate and retain business could depend on our reputation in the marketplace.

Our services are marketed to customers and prospective customers based on a number of factors, including reputation. Our corporate reputation is a significant factor in our customers' evaluation of whether to engage our services. Our customers' perception of our ability to add value through our services is critical to the profitability of our engagements. We believe the EPAM brand name and our reputation are important corporate assets that help distinguish our services from those of our competitors and contribute to our efforts to recruit and retain talented employees.

Our corporate reputation is susceptible to damage by actions or statements made by current or former customers and employees, competitors, vendors, adversaries in legal proceedings, government regulators, as well as members of the investment community and the media. There is a risk that negative information about us, even if untrue, could adversely affect our business, could cause damage to our reputation and be challenging to repair, could make potential or existing customers reluctant to select us for new engagements, and could adversely affect our recruitment and retention efforts. Damage to our reputation could also reduce the value and effectiveness of the EPAM brand name and could reduce investor confidence in us.

We may not be able to prevent unauthorized use of our intellectual property, and our intellectual property rights may not be adequate to protect our business and competitive position.

We rely on a combination of copyright, trademark, patent, unfair competition and trade secret laws, as well as intellectual property assignment and confidentiality agreements and other methods to protect our intellectual property rights. Protection of intellectual property rights and confidentiality in some countries in which we operate may not be as effective as in other countries with more developed intellectual property protections.

We require our employees and independent contractors to assign to us all intellectual property and work product they create in connection with their employment or engagement. These assignment agreements also obligate our personnel to keep proprietary information confidential. If these agreements are not enforceable in any of the jurisdictions in which we operate, or are breached, we cannot ensure that we will solely own the intellectual property they create or that our proprietary information will not be disclosed. Our customers and certain vendors are generally obligated to keep our information confidential, but if these contractual obligations are not entered, or are breached or deemed unenforceable, our trade secrets, know-how or other proprietary information may be subject to unauthorized use, misappropriation or disclosure. Reverse engineering, unauthorized copying or other misappropriation of our and our customers' proprietary technologies, tools and applications could enable unauthorized parties to benefit from our or our customers' technologies, tools and applications without payment and may make us liable to our customers for damages and compensation, which could harm our business and competitive position.

We rely on our trademarks, trade names, service marks and brand names to distinguish our services and solutions from the services of our competitors. We have registered or applied to register many of these trademarks. Third parties may oppose our trademark applications, or otherwise challenge our use of our trademarks. In the event that our trademarks are successfully challenged, we could be forced to rebrand our services and solutions, which could result in loss of brand recognition, and could require us to devote additional resources to advertising and marketing new brands. Further, we cannot provide assurance that competitors will not infringe our trademarks, or that we will have adequate knowledge of infringement or resources to enforce our trademarks. If we do enforce our trademarks and our other intellectual property rights through litigation, we may not be successful and the litigation may result in substantial costs and diversion of resources and management attention.

We may face intellectual property infringement claims that could be time-consuming and costly to defend. If we fail to defend ourselves against such claims, we may lose significant intellectual property rights and may be unable to continue providing our existing services.

Our success largely depends on our ability to use and develop our technology, tools, code, methodologies, products, and services without infringing the intellectual property rights, including patents, copyrights, trade secrets and trademarks, of third parties. We may be unaware of intellectual property rights relating to our products or services that may give rise to potential infringement claims against us, including the extensive litigation related to ownership of intellectual property rights associated with the images and text used to train generative AI software. Authors and other copyright holders seek to hold developers of generative AI software liable for using their copyrighted materials without permission and may seek to hold us or our customers liable for contributing to the infringement of their copyrighted materials. If those intellectual property rights are relevant to our service offerings, we may need to license those rights on commercially reasonable terms in order to continue to use the applicable technology. There may also be technologies licensed to and relied on by us that if subject to infringement or misappropriation claims by third parties, may become unavailable to us if such third parties obtain an injunction to prevent us from delivering our services or using technology involving the allegedly infringing intellectual property.

If we are unable to license technologies needed for our business, we typically indemnify customers who purchase our products, services and solutions against potential infringement of third-party intellectual property rights, which subjects us to the risk and cost of defending the underlying infringement claims. These claims require us to initiate or defend litigation, which may be costly and protracted, on behalf of our customers, regardless of the merits of these claims, and our indemnification obligations are often not subject to liability limits or exclusion of consequential, indirect or punitive damages. Intellectual property litigation could also divert our management's attention from our business and existing or potential customers could defer or limit their purchase or use of our software product development services or solutions until we resolve such litigation. If any of these claims succeed, we may be forced to pay damages on behalf of our customers, redesign or cease offering our allegedly infringing products, services, or solutions, or obtain licenses for the intellectual property that such services or solutions allegedly infringe. If we cannot obtain all necessary licenses on commercially reasonable terms, our customers may be forced to stop using our services or solutions.

In addition, the existence and ownership of intellectual property rights created by generative AI technologies is currently subject to judicial and legislative review, and many jurisdictions do not recognize the existence of any protectable intellectual property rights in materials created by generative AI. If we are unable to meet our customers' expectations relating to the ownership of the intellectual property underlying software deliverables, we may face legal liability. We believe AI software developers occasionally indemnify their licensees against intellectual property claims, but we think it is unlikely such indemnification obligations would cover our potential damages, if any.

Any of these actions, regardless of the outcome of licensing negotiations, litigation, or merits of the claim, could damage our reputation and materially adversely affect our business, financial condition and results of operations.

Risks Related to Information Security and Data Protection

Security breach and other disruption to our network security that compromise our information will expose us to liability and would cause our business and reputation to suffer.

In the ordinary course of business, we collect, store, process, transmit, and view sensitive or confidential data, including intellectual property, proprietary business information and personally identifiable information belonging to us, our customers, our respective employees, and other end users. This information is stored in our data centers and networks or in the data centers and networks of third-party providers. Physical security and the secure storage, processing, maintenance and transmission of this information is critical to our operations and business strategy. Our internal technology infrastructure or the technology infrastructure of our third-party providers on which our information security depends may be subject to disruptions or may otherwise fail to operate properly or become disabled or damaged as a result of a number of factors, including events that are wholly or partially beyond our control and that could adversely affect our ability to provide services or keep our information secure. Such events include IT attacks or failures, threats to physical security, electrical or telecommunications outages, damaging weather or other acts of nature, or employee or contractor error or malfeasance.

Our employees and contractors and our vendors, software and hardware suppliers, and other third parties in our information security supply chain, as well as sophisticated individual or collective groups of hackers, such as state-sponsored organizations, all pose threats to our information security. These individual, group, and organized actors have a variety of methods at their disposal, including deploying malicious software, exploiting vulnerabilities in hardware, software, or infrastructure, using social engineering or deceptive techniques to obtain information or gain access to our or our customers' data, exploiting remote working connectivity and security susceptibilities, and executing coordinated attacks to compromise our services, disrupt our operations or gain access to our communications, networks and data centers.

We have in the past experienced cybersecurity incidents and expect to continue to be the target of malicious attacks. Threats to information security evolve constantly and are increasingly sophisticated and complex, which makes detecting and successfully defending against them more difficult. Undetected vulnerabilities that persist in our network environment over long periods of time could spread within our networks or into the networks and systems of our other suppliers and customers. An attack may be viewed as immaterial or isolated at the time of its occurrence but later viewed as material or part of a larger and coordinated effort at a later date. We frequently update and improve our information security environment and assess and adopt new methods, devices, and technologies, but our policies and information security controls may not keep pace or be designed to detect emerging threats and our response to incidents may not be adequate, may fail to accurately assess the severity of an incident, may not be fast enough to prevent or limit harm, or may fail to sufficiently remediate an incident.

Our ability to monitor our third-party suppliers' information security systems is limited and we are not able to detect vulnerabilities in their systems until we are notified of the existence of those vulnerabilities. There have been and will continue to be attacks on our and third parties' information security supply chains. We cannot guarantee that our information security supply chain has not been breached and does not contain exploitable defects, bugs, or vulnerabilities that could result in an incident, breach, or other disruption to our system or the systems of our customers or suppliers.

Despite our multiple security measures, any breach of our facilities, network, or information security defenses compromises the information stored in those locations and allows the accessed information to be held for ransom, publicly disclosed, misappropriated, lost or stolen. Such a breach, misappropriation, or disruption, or the perception that we are vulnerable to a breach, could also disrupt our operations and the services we provide to customers, and any actual, alleged, or perceived breach of network or information security that we, our suppliers, our customers, or our industry suffer could damage our reputation, and cause a loss of confidence in our products and services, as well as require us to expend significant resources, which may not be covered by insurance, to protect against further breaches and to rectify problems caused by these events. Any such access, disclosure or other loss of information could result in legal claims or proceedings, liability under applicable laws, regulatory penalties or enforcement actions, and could adversely affect our business, revenues and competitive position.

Development and deployment of measures to protect our information security or that of our customers may be inadequate and could adversely affect our results of operations.

To defend against information security threats internally, at our third-party providers, and on our customers' systems, we must continuously engineer or purchase more secure products and services, enhance security and reliability features, improve deployment and compliance with software updates, assess and develop mitigation strategies and technologies to help secure information, hire information security specialists, and maintain a security infrastructure that protects our network, products, and services, and the software we build for our customers. Some of our customers seek additional assurances for the protection of their sensitive information, including personally identifiable information, and attempt to hold us liable, through contractual indemnification clauses or directly, for any losses or damages in the event that their sensitive information is disclosed. At times, to achieve commercial objectives, we agree to greater liability exposure to such customers. In addition, government regulators have sought and may continue to seek to impose fines, penalties, and other civil or criminal consequences for real or suspected security breaches and perceived inadequate information security. Our customers, particularly those in the Financial Services and Life Sciences & Healthcare industry verticals, may have enhanced or particular security requirements which we must address in our engineering and development services. Other parties, such as our customers' customers, who have a private right of action, will seek damages for any information security or privacy breach on an individual or collective basis, and our customers have in the past, and may in the future, request to be indemnified against such claims. We must also educate our employees, contractors, and customers about the need to effectively use security measures.

The cost of information security measures, either to protect our information or the information of our customers, and the cost of complying with privacy and information security disclosure regulations, reduces our profitability. Actual or perceived security vulnerabilities in our software and services, even if those vulnerabilities are the result of hardware or software developed by third parties, harm our reputation and lead customers to use our competitors, reduce or delay future purchases of our services, or seek compensation or damages.

Changes in privacy and data protection regulations could expose us to risks of noncompliance and costs associated with compliance.

EPAM is subject to the GDPR, the substantially similar U.K. GDPR, the privacy laws of California and other U.S. states, and the privacy laws of the countries where we operate, each of which imposes significant restrictions and requirements relating to the processing of personal data and can include significant financial penalties for non-compliance. These and other state, national and international data protection laws that are or will soon be effective are more burdensome than historical privacy standards, especially in the United States. California's privacy laws, the U.K. GDPR, and GDPR each established complex legal obligations that organizations must follow with respect to the processing of personal data, including a prohibition on the transfer of personal information to third parties or to other countries, and the imposition of additional notification, security and other control measures. Recent developments in privacy regulations, including the new EU-U.S. Trans-Atlantic Data Privacy Framework, that are designed to secure the transfer of data from the EU to the United States have created significant regulatory uncertainty for businesses transferring data globally. This uncertainty results in increased compliance costs, as well as the risk of regulatory enforcement actions, which can result in significant financial penalties, private lawsuits, reputational damage, blockage of international data transfers, disruption to business, and loss of customers.

Enforcement actions taken by data protection authorities, as well as audits, investigations, or lawsuits by one or more individuals, organizations, or foreign government agencies often result in penalties and fines for non-compliance or claims against us seeking damages as a result of a breach of these regulations. The burden of compliance with additional data protection requirements results in significant additional costs, complexity and risk in our services and customers attempt to shift the risks resulting from the implementation of data privacy legislation to us. We are required to establish processes and change certain operations in relation to the processing of personal data as a result of privacy laws, which involves substantial expense and distraction from other aspects of our business.

Undetected software design defects, errors or failures may result in loss of business or in liabilities that could materially adversely affect our business.

Our software development solutions involve a high degree of technological complexity, have unique specifications and could contain design defects or software errors that are difficult to detect or correct, including as a result of the introduction of new and emerging technologies such as AI. Errors or defects in design, execution, or quality inspections may result in the loss of current customers, revenues, market share, or customer data, a failure to attract new customers or achieve market acceptance and could divert development resources and increase support or service costs. We cannot provide assurance that, despite testing by our customers and us, errors will not be found in the software products we develop or the services we perform. Any such errors could result in disruptions to the proper functioning of the software we build, cause disruptions in our customers' business, and allow unauthorized access to our or our customers' proprietary information, resulting in claims for damages against us, litigation, and reputational harm that could materially adversely affect our business.

General Risk Factors

Our stock price is volatile.

Our common stock has experienced substantial price volatility as a result of variations between our actual and anticipated financial results, announcements by our competitors, third parties, or us, projections or speculation about our business or that of our competitors or industry by the media or investment analysts, geopolitical events or uncertainty about inflation or other current global economic conditions. The stock market, as a whole, has experienced price and volume fluctuations that have affected the market price of many technology companies in ways that may have been unrelated to these companies' operating performance. Furthermore, we believe our stock price should reflect future growth and profitability expectations and, if we fail to meet these expectations, our stock price may significantly decline.

Expense related to our liability-classified restricted stock units, which are subject to mark-to-market accounting, and the calculation of the weighted average diluted shares outstanding in accordance with the treasury method are both affected by our stock price. Any fluctuations in the price of our stock will affect our future operating results.

We may need additional capital, and a failure to raise additional capital on terms favorable to us, or at all, could limit our ability to grow our business and develop or enhance our service offerings to respond to market demand or competitive challenges.

We believe that our current cash, cash flow from operations and revolving line of credit are sufficient to meet our anticipated cash needs for at least the next twelve months. We may, however, require additional cash resources due to changed business conditions or other future developments, including any investments or acquisitions that we may decide to pursue. If these resources are insufficient to satisfy our cash requirements, we may seek to sell additional equity or debt securities or obtain another credit facility, and we cannot be certain that such additional financing would be available on terms acceptable to us or at all. The sale of additional equity securities could result in dilution to our stockholders, and additional indebtedness would result in increased debt service costs and obligations and could impose operating and financial covenants that would further restrict our operations.

Our hedging program is subject to counterparty default risk.

We enter into foreign currency forward contracts with a number of counterparties. As a result, we are subject to the risk that the counterparty to one or more of these contracts defaults on its performance under the contract. During an economic downturn, the counterparty's financial condition may deteriorate rapidly and with little notice and we may be unable to take action to protect our exposure. In the event of a counterparty default, we could incur significant losses, which may harm our business and financial condition. In the event that one or more of our counterparties becomes insolvent or files for bankruptcy, our ability to eventually recover any losses suffered as a result of that counterparty's default may be limited by the liquidity of the counterparty.

War, terrorism, other acts of violence or natural or man-made disasters may affect the markets in which we operate, our customers, and our service delivery.

Our business may be negatively affected by instability, disruption or destruction in the geographic regions where we operate. War, terrorism, riot, civil insurrection or social unrest; man-made and natural disasters, the severity and frequency of which have increased due to climate change, and include famine, flood, fire, earthquake, pandemics and other regional or global health crises, storm or disease, may cause customers to delay their decisions on spending for the services we provide and give rise to sudden significant changes in regional and global economic conditions and cycles. Our crisis management procedures, business continuity, and disaster recovery plans may not be effective at preventing or mitigating the effects of such disasters, particularly in the case of simultaneous or catastrophic events. These events pose significant security risks to our people, the facilities where they work, our operations, electricity and other utilities, communications, travel, and network services, and the disruption of any or all of them could materially adversely affect our financial results. Travel restrictions resulting from natural or man-made disruptions, pandemics or other public health events, and political or social conflict increase the difficulty of obtaining and retaining highly skilled and qualified professionals and could unexpectedly increase our labor costs and expenses, both of which could also adversely affect our ability to serve our customers.

Our effective tax rate could be materially adversely affected by several factors.

We conduct business globally and file income tax returns in multiple jurisdictions. Our effective tax rate could be materially adversely affected by several factors, including changes in the amount of income taxed by or allocated to the various jurisdictions in which we operate that have differing statutory tax rates; changing tax laws, treaties, regulations and interpretations of such rules in one or more jurisdictions, including the global implementation of a 15% minimum tax under Pillar Two of the OECD Base Erosion and Profit Shifting initiative; and the resolution of issues arising from tax audits or examinations and any related interest or penalties. The determination of our provision for income taxes and other tax liabilities requires estimation, judgment and calculations where the ultimate tax determination may not be certain. Our determination of tax liability is always subject to review or examination by authorities in various jurisdictions. If a tax authority in any jurisdiction reviews any of our tax returns and proposes an adjustment, including, but not limited to, a determination that the transfer prices and terms we have applied are not appropriate, such an adjustment could have a negative impact on our results of operations, business, and profitability.

Item 1B. Unresolved Staff Comments

None.

Item 1C. Cybersecurity

Our Cybersecurity Risk Management Program

We believe cybersecurity is a critical element in our business and in enabling digital transformation for our customers. EPAM and our customers and suppliers all face risks from cybersecurity threats and a cybersecurity incident impacting any or all of us could materially adversely affect our operations, performance and results of operations. For these reasons, EPAM maintains a cybersecurity risk management program designed to identify, assess, manage, mitigate, and respond to cybersecurity threats. Our cybersecurity risk management program includes periodic reviews of our risks and responses as well as company-wide risk assessments by internal and external cyber risk professionals and is designed to address risks related to both EPAM's corporate information technology network and our cybersecurity services.

Cybersecurity Risk Governance

Several of the members of our Board of Directors have extensive experience in the information technology and information security industries, so our entire Board of Directors oversees EPAM's cybersecurity risk exposure and our management's processes for identifying, monitoring, and mitigating cybersecurity risks. Our Chief Information Security Officer and our Head of Global Operations brief the Board of Directors on our cybersecurity and information security programs and risks, both as a regular, standalone topic and as part of EPAM's enterprise risk management program, where it remains rated as a high priority risk that has been integrated into our regular enterprise risk management assessments. The Board of Directors or its leadership, as well as designated members of functional areas such as legal and communications, are also informed of cybersecurity incidents with the potential to have a business impact on EPAM, even if they are not material to EPAM.

Our information security programs are led by our Chief Information Security Officer and our Head of Global Operations and encompass our overall information security strategy, policy, operations, and threat detection and response management. Our information security leadership has more than 50 years of combined experience in software product engineering, security, and IT services, with extensive operational, cybersecurity, and global management experience in our or other corporate information security roles and organizations. Our information security leadership is also responsible for notifying our management and Board of Directors about cybersecurity threats and incidents. Our information security team reports to our information security leadership and selects, deploys, and operates cybersecurity technologies, initiatives, and processes across our global footprint and develops and monitors government, public, and private threat intelligence sources to continually enhance our enterprise security structure and system resilience. Our personnel and end-users who are not assigned to our information security organization also contribute to our cybersecurity defense matrix by engaging in various learning modules and events, including simulations, tabletop exercises, and mandatory annual compliance and threat awareness training. The results and feedback from our exercises and training programs are subsequently incorporated into our evolving cybersecurity strategy. We built a security operations center to constantly monitor our global information security posture and to receive threat notifications and coordinate the investigation and remediation of alerts. In the event of an incident, we have developed detailed incident response playbooks that outline the identification, assessment, remediation, and prevention steps that we follow when responding to a cybersecurity threat.

Cybersecurity Risk Management

The governance structure, controls, and processes of our information security programs are based on industry best practices, our own practices and frameworks, and codified cybersecurity and information technology standards, including compliance with the International Organization Standardization/International Electrotechnical Commission 27001:2002 Information Security Management Systems standard, the International Standard on Assurance Engagements 3402 standard, as well as applicable laws and regulations. We are regularly subject to evaluations, assessments, audits, tests, and compliance inspections by customers and third-party auditors that we or our customers engage to evaluate and test our cybersecurity risk management processes.

In addition to internal and external assessments of our own preparedness, we also seek to evaluate cybersecurity risks arising from our vendors and other third-party service providers. We review third-party cybersecurity controls through questionnaires, audits, and contract reviews, including adding security and privacy addenda to our contracts where applicable, and generally receive or commission system and organization controls reports, if available. We also generally require that our vendors report cybersecurity incidents to us so that we can assess the impact of an incident if it occurs. Vendors that are unable to provide adequate reporting or that have access to sensitive data generally have their cybersecurity processes and procedures reviewed and our relationship with that vendor is further assessed on the basis of those reviews. Our assessment of risks associated with use of third-party providers is part of our overall cybersecurity risk management framework.

We face a number of cybersecurity risks in connection with our business and we have, from time to time, experienced threats to and breaches of our data and systems and expect to continue to experience cybersecurity incidents and threats in connection with our business. Prior cybersecurity incidents have not had a material effect on our business, financial condition, results of operations, or cash flows but we cannot provide assurances that there will not be material cybersecurity incidents in the future. We have incurred and may continue to incur costs or other financial impacts from cybersecurity events that may not be covered by, or may exceed the coverage limits of, our cyber liability insurance. For more information about the cybersecurity risks we face, see the risk factor entitled “Security breaches and other disruptions to our network security that compromise our information will expose us to liability and would cause our business and reputation to suffer.” in Item 1A – Risk Factors.

Item 2. Properties

Our corporate headquarters are located in Newtown, Pennsylvania. We own and lease office buildings used as delivery centers, client management locations and space for administrative and support functions. These facilities are located in numerous cities worldwide and are strategically positioned in relation to our talent sources and key in-market locations to align with the needs of our operations. We believe that our existing properties are adequate to meet the current requirements of our business, and that suitable additional or substitute space will be available, if necessary. We actively monitor the spaces we occupy and adjust the leased capacity and geographical locations of offices as our operational needs change. During 2023, we continued to operate under a hybrid work model and we believe our existing facilities, both owned and leased, are in good operating condition and suitable for the conduct of our business. Our facilities are used interchangeably among our segments.

See Note 18 “Segment Information” in the notes to our consolidated financial statements in this Annual Report on Form 10-K for information regarding the geographical locations and values of our long-lived assets. See Note 7 “Property and Equipment, Net” in the notes to our consolidated financial statements in this Annual Report on Form 10-K for information regarding our long-lived assets and buildings we own. See Note 9 “Leases” in the notes to our consolidated financial statements in this Annual Report on Form 10-K for information regarding our leased assets. See Note 2 “Impact of the Invasion of Ukraine” in the notes to our consolidated financial statements in this Annual Report on Form 10-K for more information regarding our assets in Ukraine.

Item 3. Legal Proceedings

From time to time, we are involved in litigation and claims arising out of our business and operations in the normal course of business. We are not currently a party to any material legal proceeding, nor are we aware of any material legal or governmental proceedings pending or contemplated to be brought against us.

Item 4. Mine Safety Disclosures

None.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market Information

Our common stock is traded on the New York Stock Exchange ("NYSE") under the symbol "EPAM."

Number of Holders

As of February 9, 2024, we had approximately 15 stockholders of record of our common stock. The number of record holders does not include holders of shares in "street name" or persons, partnerships, associations, corporations or other entities identified in security position listings maintained by depositories.

Dividend Policy

We have not declared or paid any cash dividends on our common stock and currently do not anticipate paying any cash dividends in the foreseeable future. Instead, we intend to retain all available funds and any future earnings for use in the operation and expansion of our business, and to repurchase our common stock. In addition, our revolving credit facility restricts our ability to make or pay dividends (other than certain intercompany dividends) unless no potential or actual event of default has occurred or would be triggered thereby. Any future determination relating to our dividend policy will be made at the discretion of our Board of Directors and will depend on our future earnings, capital requirements, financial condition, future prospects, applicable Delaware law, which provides that dividends are only payable out of surplus or current net profits, and other factors that our Board of Directors deems relevant.

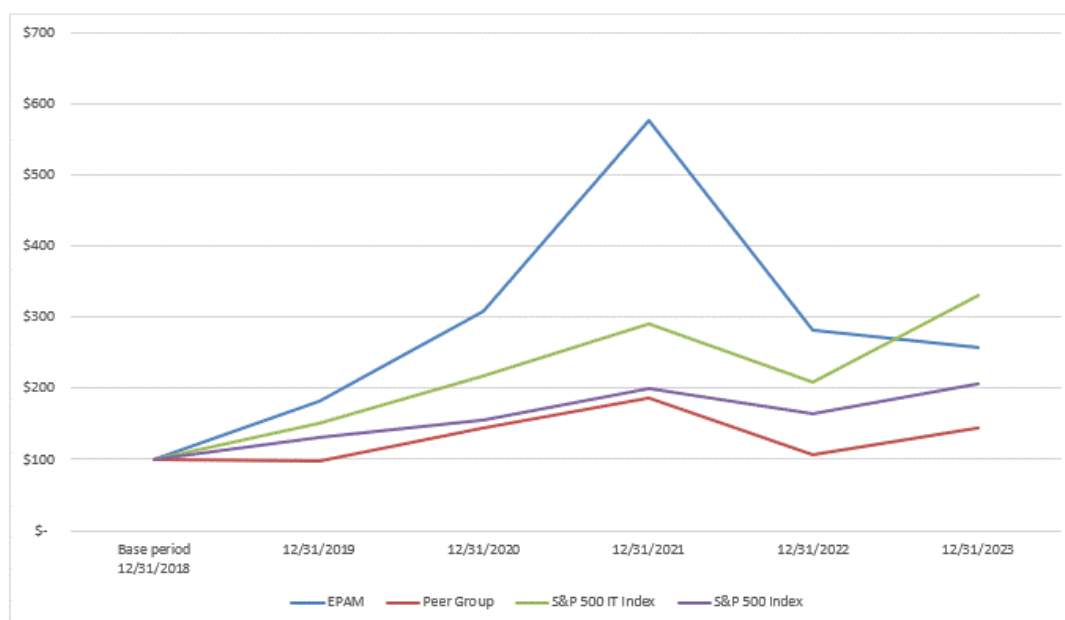
Securities Authorized for Issuance under Equity Compensation Plans

See "Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters" in Part III of this Annual Report on Form 10-K for our equity compensation plan information.

Performance Graph

The following graph compares the cumulative total stockholder return on our common stock with the cumulative total return on a Peer Group (capitalization weighted), the S&P 500 Information Technology Index and the S&P 500 Index for the period beginning December 31, 2018, and ending December 31, 2023. The stock performance shown on the graph below is not indicative of future price performance. The following performance graph and related information shall not be deemed “soliciting material” or to be “filed” with the SEC, nor shall information be incorporated by reference into any future filing under the Securities Act of 1933 or Securities Exchange Act of 1934, each as amended, except to the extent that we specifically incorporate it by reference into such filing.

COMPARISON OF CUMULATIVE TOTAL RETURN ⁽¹⁾⁽²⁾ Among EPAM, a Peer Group ⁽³⁾, S&P 500 IT Index⁽⁴⁾ and the S&P 500 Index



Company/Index	Base period 12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023
EPAM Systems, Inc.	\$ 100.00	\$ 182.88	\$ 308.90	\$ 576.20	\$ 282.51	\$ 256.31
Peer Group ⁽³⁾	\$ 100.00	\$ 97.94	\$ 144.66	\$ 185.71	\$ 106.06	\$ 143.67
S&P 500 IT Index ⁽⁴⁾	\$ 100.00	\$ 150.29	\$ 216.25	\$ 290.92	\$ 208.90	\$ 329.73
S&P 500 Index	\$ 100.00	\$ 131.49	\$ 155.68	\$ 200.37	\$ 164.08	\$ 207.21

(1) Graph assumes \$100 invested on December 31, 2018 in our common stock, a Peer Group, the S&P 500 IT Index and the S&P 500 Index.

(2) Cumulative total return assumes reinvestment of dividends.

(3) The Peer Group includes Cognizant Technology Solutions Corp. (NASDAQ:CTSH), DXC Technology Company (NYSE:DXC), Endava plc (NYSE:DAVA), Globant S.A. (NYSE:GLOB), Infosys Ltd. (NYSE:INFY), Perficient, Inc. (NASDAQ:PRFT), and Wipro Limited (NYSE:WIT).

(4) Beginning in 2023, we have elected to replace the Peer Group with the S&P Information Technology Index because we believe the new index represents a more diversified group of companies across the technology industry in which we operate and is more aligned with a comparable peer group. This index will replace our Peer Group in future filings, however, in this transition year both measures are included in the performance graph.

Unregistered Sales of Equity Securities

On October 25, 2023, in connection with the Company's acquisition of all of the outstanding equity of S4N Holding, Inc. ("S4N"), a Panamanian corporation reported as one of the Other 2021 Acquisitions (see Note 3 "Acquisitions"), the Company issued 14 thousand shares of common stock to the S4N sellers under the terms of the purchase agreement and following achievement of certain performance metrics set forth under the purchase agreement. All of the shares of common stock issued in connection with this issuance are restricted securities (as defined in Rule 144 of the Securities Act of 1933, as amended (the "Securities Act")). No underwriter was involved in this issuance and no underwriting commissions were paid. The transaction was exempt from the registration requirements of Section 4(a)(2) of the Securities Act, since the transaction did not involve any public offering.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

On February 13, 2023, the Board of Directors authorized a repurchase program for up to \$500.0 million of our outstanding common stock. EPAM may repurchase shares of its common stock on a discretionary basis from time to time through open market purchases, privately negotiated transactions or other means, including through the use of trading plans intended to qualify under Rule 10b5-1 under the Securities Exchange Act of 1934, as amended. The share repurchase program has a term of 24 months, may be suspended or discontinued at any time, and does not obligate the company to acquire any amount of common stock.

Share repurchase activity during the three months ended December 31, 2023 was as follows:

Period	Total Number of Shares Purchased	Average Price Paid per Share ⁽¹⁾	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs
(in thousands, except per share amounts)				
October 1, 2023 to October 31, 2023	—	\$ —	—	\$ 371,566
November 1, 2023 to November 30, 2023	80	\$ 241.94	80	\$ 352,240
December 1, 2023 to December 31, 2023	63	\$ 273.81	63	\$ 335,076
Total	143		143	

⁽¹⁾ Average price paid per share in the period includes commission.

Under our equity-based compensation plans, the Company withholds a number of shares of vested stock as payment to satisfy tax withholding obligations arising on the date of vesting of stock-based compensation awards. The number of shares of stock to be withheld is calculated based on the closing price of the Company's common stock on the vesting date. During the three months ended December 31, 2023, the Company purchased 8 thousand shares. During 2023, the Company purchased an aggregate of 103 thousand shares. These shares were not acquired pursuant to our securities repurchase program.

Item 6.

Reserved.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

You should read the following discussion and analysis of our financial condition and results of operations together with our audited consolidated financial statements and the related notes included elsewhere in this annual report. In addition to historical information, this discussion contains forward-looking statements that involve risks, uncertainties and assumptions that could cause actual results to differ materially from management's expectations. Factors that could cause such differences are discussed in the sections entitled "Forward-Looking Statements" and "Part I. Item 1A. Risk Factors." We assume no obligation to update any of these forward-looking statements.

Executive Summary

We have used our software engineering expertise to become a leading global provider of digital engineering, cloud and AI-enabled transformation services, as well as a leading business and experience consulting partner for global enterprises and ambitious startups. We address our clients' transformation challenges by fusing EPAM Continuum's integrated strategy, experience and technology consulting with our 30+ years of engineering execution to speed our clients' time to market and drive greater value from their digital investments.

Through increased specialization in focused verticals and a continued emphasis on strategic partnerships, we are able to deliver technology transformation from start to finish, leveraging agile methodologies, proven customer collaboration frameworks, engineering excellence tools, hybrid teams and our award-winning proprietary global delivery platform.

Our customers depend on us to solve their complex technical challenges and rely on our expertise in core engineering, advanced technologies, digital design and intelligent enterprise development. We combine our software engineering heritage with strategic business and innovation consulting, design thinking, and physical-digital capabilities to deliver end-to-end digital transformation services for our customers. We focus on building long-term partnerships with our customers in a market that is constantly challenged by the pressures of digitization through our innovative strategy and scalable software solutions, integrated advisory, business consulting and experience design, and a continually evolving mix of advanced capabilities.

Our global delivery model and centralized support functions, combined with the benefits of scale from the shared use of fixed-cost resources, enhance our productivity levels and enable us to better manage the efficiency of our global operations. As a result, we have created a delivery base whereby our applications, tools, methodologies and infrastructure allow us to seamlessly deliver services and solutions from our global delivery centers to our customers across the world. Our teams of consultants, designers, architects, engineers and trainers have the capabilities and skill sets to deliver business results.

Business Update Regarding the War in Ukraine

On February 24, 2022, Russian forces attacked Ukraine and its people and EPAM has repeatedly called for an immediate end to this unlawful and unconscionable attack. EPAM's highest priority is the safety and security of its employees and their families in Ukraine as well as the broader region, and we have continued to support relocating our employees to lower risk locations, both in Ukraine and to other countries where we operate. The vast majority of our Ukraine employees are in safe locations and operating at levels of productivity consistent with those achieved prior to the attack. As of December 31, 2023, Ukraine remains our largest delivery location with the most delivery professionals. Furthermore, we have maintained our \$100 million humanitarian aid commitment to our people in Ukraine in addition to our other donations and volunteer efforts.

Prior to the attack in February 2022, Russia was our third largest delivery location as measured by the number of delivery professionals. In April 2022, the Company announced the beginning of a phased exit of our operations in Russia in close collaboration with our employees, contractors, and customers. We discontinued services to certain customers located in Russia and on July 26, 2023, we completed the sale of our remaining holdings in Russia to a third party.

The impact of Russia's invasion of Ukraine on our operations, personnel, and physical assets in Ukraine has had, and, along with any escalation of the war that includes Belarus' territory or military, could continue to have a material adverse effect on our operations. Actions taken by other countries, including new and stricter sanctions by Canada, the United Kingdom, the European Union, the U.S. and other companies and organizations against officials, individuals, regions, and industries in Belarus, and Belarus' responses to those sanctions, including counter-sanctions and other actions, have had and could continue to have a material adverse effect on our operations. Customers have and may continue to seek altered terms, conditions, and delivery locations for the performance of services, delay planned work or seek services from alternate providers, or suspend, terminate, fail to renew, or reduce existing contracts or services, which could have a material adverse effect on our financial condition. Some of our customers have implemented steps to block internet communications with Ukraine and Belarus to protect against potential cyberattacks or other information security threats, which has caused a material adverse effect on our ability to deliver our services to these customers from those locations. Such material adverse effects disrupt our delivery of services, cause us to shift all or portions of our work occurring in the region to other countries, restrict our ability to engage in certain projects in the region and serve certain customers in or from the region, and could negatively impact our personnel, operations, financial results and business outlook. Our Board of Directors continues its oversight of our strategic, geopolitical, and cybersecurity risks and the risks related to our geographic expansion. Our Board has received updates from management during both regular and special meetings, while also providing oversight of the risks associated with Russia's invasion of Ukraine and other strategic areas of importance related to the war.

Moving Forward

We continue to execute our business continuity plans and adapt to developments as they occur to protect the safety of our people and address impacts on our delivery infrastructure, including reallocating work to other geographies within our global footprint. We have engaged both our personnel and our customers to meet their needs and to mitigate delivery challenges. EPAM continues to operate productively in more than 50 countries and provides consistent high-quality delivery to our customers. Our global delivery centers have sufficient resources, including infrastructure and capital, to support ongoing operations. We continue to rapidly respond to the difficult conditions in Ukraine while maintaining a focus on our customers and long-term growth.

Implementation and execution of our business continuity plans, relocation costs, our humanitarian commitment to our people in Ukraine, and the cost of our phased exit from Russia resulted in materially increased expenses during 2022 and these expenses continued to be incurred in 2023. We expect some of those expenses will continue to occur in subsequent quarters for some time in the future.

We have no way to predict the progress or outcome of the war in Ukraine because the conflict and government reactions change quickly and are beyond our control. Prolonged military activities, broad-based sanctions and counter-sanctions, or escalation of the war that includes Belarus' territory or military could have a material adverse effect on our operations and financial condition. The information contained in this section is accurate as of the date hereof but may become outdated due to changing circumstances beyond our control or present awareness.

For additional information on the various risks posed by the attack against Ukraine and the impact in the region as well as other disruptors to our business, please read "Part I. Item 1A. Risk Factors" included in this Annual Report on Form 10-K.

Critical Accounting Policies

We prepare our consolidated financial statements in accordance with U.S. generally accepted accounting principles ("GAAP"), which require us to make judgments, estimates and assumptions that affect: (i) the reported amounts of assets and liabilities, (ii) the disclosure of contingent assets and liabilities at the end of each reporting period and (iii) the reported amounts of revenues and expenses during each reporting period. We evaluate these estimates and assumptions based on historical experience, knowledge and assessment of current business and other conditions, and expectations regarding the future based on available information and reasonable assumptions, which together form a basis for making judgments about matters not readily apparent from other sources. Since the use of estimates is an integral component of the financial reporting process, actual results could differ from those estimates. Some of our accounting policies require higher degrees of judgment than others in their application. When reviewing our audited consolidated financial statements, you should consider (i) our selection of critical accounting policies, (ii) the judgment and other uncertainties affecting the application of such policies and (iii) the sensitivity of reported results to changes in conditions and assumptions. We consider the policies discussed below to be critical to an understanding of our consolidated financial statements as their application places significant demands on the judgment of our management.

An accounting policy is considered critical if it requires an accounting estimate to be made based on assumptions about matters that are highly uncertain at the time the estimate is made, and if different estimates that reasonably could have been used, or changes in the accounting estimates that are reasonably likely to occur periodically, could materially impact the consolidated financial statements. We believe that the following critical accounting policies are the most sensitive and require more significant estimates and assumptions used in the preparation of our consolidated financial statements. You should read the following descriptions of critical accounting policies, judgments and estimates in conjunction with our audited consolidated financial statements and other disclosures included elsewhere in this annual report. Additional information on our policies is in Note 1 “Organization and Summary of Significant Accounting Policies” in the notes to our consolidated financial statements in this Annual Report on Form 10-K.

Revenues — We recognize revenues when control of goods or services is passed to a customer in an amount that reflects the consideration we expect to be entitled to in exchange for those goods or services. Such control may be transferred over time or at a point in time depending on satisfaction of obligations stipulated by the contract. Consideration expected to be received may consist of both fixed and variable components and is allocated to each separately identifiable performance obligation based on the performance obligation’s relative standalone selling price. Variable consideration usually takes the form of volume-based discounts, service level credits, price concessions or incentives. Determining the estimated amount of such variable consideration involves assumptions and judgment that can have an impact on the amount of revenues reported.

We derive revenues from a variety of service arrangements, which have been evolving to provide more customized and integrated solutions to customers by combining software engineering with customer experience design, business consulting and technology innovation services. Fees for these contracts may be in the form of time-and-materials or fixed-price arrangements. We generate the majority of our revenues under time-and-material contracts, which are billed using hourly, daily or monthly rates to determine the amounts to be charged directly to the customer. We apply a practical expedient and revenues related to time-and-material contracts are recognized based on the right to invoice for services performed.

Fixed-price contracts include maintenance and support arrangements, which may exceed one year in duration. Maintenance and support arrangements generally relate to the provision of ongoing services and revenues for such contracts are recognized ratably over the expected service period. Fixed-price contracts also include application development arrangements, where progress towards satisfaction of the performance obligation is measured using input or output methods and input methods are used only when there is a direct correlation between hours incurred and the end product delivered. Assumptions, risks and uncertainties inherent in the estimates used to measure progress could affect the amount of revenues, receivables and deferred revenues at each reporting period.

Revenues from licenses which have significant stand-alone functionality are recognized at a point in time when control of the license is transferred to the customer. Revenues from licenses which do not have stand-alone functionality are recognized over time. If there is an uncertainty about the receipt of payment for the services, revenue recognition is deferred until the uncertainty is sufficiently resolved. We apply a practical expedient and do not assess the existence of a significant financing component if the period between transfer of the service to a customer and when the customer pays for that service is one year or less.

We report gross reimbursable “out-of-pocket” expenses incurred as both revenues and cost of revenues in the consolidated statements of income.

Business Combinations — We account for business combinations using the acquisition method which requires us to estimate the fair value of identifiable assets acquired and liabilities assumed, including any contingent consideration, to properly allocate purchase price to the individual assets acquired and liabilities assumed. A substantial portion of the purchase price is typically allocated to goodwill and other intangible assets, which typically include customer relationships, software, trade names, non-competition agreements, and assembled workforce. The allocation of the purchase price utilizes significant estimates in determining the fair values of identifiable assets acquired and liabilities assumed, especially with respect to intangible assets. The significant estimates and assumptions used include the timing and amount of forecasted revenues and cash flows, anticipated growth rates, customer attrition rates, the discount rate reflecting the risk inherent in future cash flows, and the useful lives for finite-lived assets. There are different valuation models for each component, the selection of which requires considerable judgment. These determinations will affect the amount of amortization expense recognized in future periods. We base our fair value estimates on assumptions we believe are reasonable but recognize that the assumptions are inherently uncertain.

We determine the fair value of contingent consideration using Monte Carlo simulations (which involve a simulation of future revenues and earnings during the earn-out period using management's best estimates) or probability-weighted expected return methods. Changes in financial projections, market risk assumptions, discount rates or probability assumptions related to achieving the various earn-out criteria would result in a change in the fair value of contingent consideration. Such changes, if any, are recorded within Interest and other income/(loss), net in the Company's consolidated statements of income.

If the initial accounting for the business combination has not been completed by the end of the reporting period in which the business combination occurs, provisional amounts are reported to present information about facts and circumstances that existed as of the acquisition date. Once the measurement period ends, which in no case extends beyond one year from the acquisition date, revisions to the accounting for the business combination are recorded in earnings.

Recent Accounting Pronouncements

See Note 1 "Organization and Summary of Significant Accounting Policies" in the notes to our consolidated financial statements in this Annual Report on Form 10-K for information regarding recent accounting pronouncements.

Results of Operations

The following table sets forth a summary of our consolidated results of operations for the periods indicated. This information should be read together with our consolidated financial statements and related notes included elsewhere in this annual report. The operating results in any period are not necessarily indicative of the results that may be expected for any future period.

	Year Ended December 31,					
	2023		2022		2021	
	% of revenues		% of revenues		% of revenues	
	(in thousands, except percentages and per share data)					
Revenues	\$4,690,540	100.0 %	\$4,824,698	100.0 %	\$3,758,144	100.0 %
Operating expenses:						
Cost of revenues (exclusive of depreciation and amortization) ⁽¹⁾	3,256,514	69.4	3,286,683	68.1	2,483,697	66.1
Selling, general and administrative expenses ⁽²⁾	815,065	17.4	872,777	18.1	648,736	17.3
Depreciation and amortization expense	91,800	1.9	92,272	1.9	83,395	2.2
Loss on sale of business	25,922	0.6	—	—	—	—
Income from operations	501,239	10.7	572,966	11.9	542,316	14.4
Interest and other income/(loss), net	51,124	1.0	10,025	0.2	(1,727)	—
Foreign exchange loss	(15,778)	(0.3)	(75,733)	(1.6)	(7,197)	(0.2)
Income before provision for income taxes	536,585	11.4	507,258	10.5	533,392	14.2
Provision for income taxes	119,502	2.5	87,842	1.8	51,740	1.4
Net income	\$ 417,083	8.9 %	\$ 419,416	8.7 %	\$ 481,652	12.8 %
Effective tax rate	22.3 %		17.3 %		9.7 %	
Diluted earnings per share	\$7.06		\$7.09		\$8.15	

(1) Includes \$68,797, \$47,470 and \$51,580 of stock-based compensation expense for the years ended December 31, 2023, 2022 and 2021, respectively.

(2) Includes \$78,933, \$52,439 and \$60,075 of stock-based compensation expense for the years ended December 31, 2023, 2022 and 2021, respectively.

Revenues

We continue to diversify our presence across multiple geographies and verticals, both organically and through strategic acquisitions. During the year ended December 31, 2023, our total revenues decreased 2.8% from the previous year to \$4.691 billion. Revenues have been negatively impacted by reduced demand for our services as our customers took action to reduce spending, in light of the uncertain economic environment and to reduce their geographic exposure to the region impacted by the war in Ukraine, and our decision to exit Russia and discontinue services to customers there, which contributed 1.0% to the year-over-year decline. Revenues have been positively impacted by fluctuations in foreign currency exchange rates which partially offset our revenue decline by 0.6% during the year ended December 31, 2023 as compared to the previous year. During the year ended December 31, 2023 we experienced similar customer concentration in our top customer groups as a percentage of total revenues as compared to the previous year.

We discuss below the breakdown of our revenues by vertical, customer location, service arrangement type, and customer concentration.

Revenues by Vertical

We assign our customers into one of our five main vertical markets or a group of various industries where we are increasing our presence, which we label as “Emerging Verticals.” Emerging Verticals include customers in multiple industries such as energy, utilities, manufacturing, automotive, telecommunications and several others.

The following table presents our revenues by vertical and revenues as a percentage of total revenues by vertical for the periods indicated:

	Year Ended December 31,								
	2023		2022		2021				
	(in thousands, except percentages)								
Travel & Consumer	\$	1,072,950	22.9 %	\$	1,092,224	22.7 %	\$	741,128	19.7 %
Financial Services		1,018,433	21.7		1,026,686	21.3		848,370	22.6
Business Information & Media		753,981	16.1		809,952	16.8		666,941	17.7
Software & Hi-Tech		707,720	15.1		793,261	16.4		664,597	17.7
Life Sciences & Healthcare		489,914	10.4		507,367	10.5		391,309	10.4
Emerging Verticals		647,542	13.8		595,208	12.3		445,799	11.9
Revenues	\$	4,690,540	100.0 %	\$	4,824,698	100.0 %	\$	3,758,144	100.0 %

Travel & Consumer remained our largest vertical during 2023, comprising 22.9% of total revenues. Except for Emerging Verticals, which grew at a rate of 8.8% in 2023 over the prior year, all of our verticals experienced revenue declines in 2023 from the prior year.

Revenues by Customer Location

Our revenues are sourced from multiple countries, which we assign into four geographic markets identified as Americas, EMEA, APAC, and CEE. We present and discuss our revenues by customer location based on the location of the specific customer site that we serve, irrespective of the location of the headquarters of the customer or the location of the delivery center where the work is performed. Revenues by customer location differ from revenues by reportable segment in our consolidated financial statements included elsewhere in this annual report. Segments are not based on the geographic location of the customers, but rather they are based on the location of the Company’s management responsible for a particular customer.

The following table sets forth revenues by customer location by amount and as a percentage of our revenues for the periods indicated:

	Year Ended December 31,								
	2023		2022		2021				
	(in thousands, except percentages)								
Americas ⁽¹⁾	\$	2,742,662	58.4 %	\$	2,887,204	59.9 %	\$	2,226,830	59.3 %
EMEA ⁽²⁾		1,822,782	38.9		1,737,919	36.0		1,259,717	33.4
APAC ⁽³⁾		102,138	2.2		120,370	2.5		103,559	2.8
CEE ⁽⁴⁾		22,958	0.5		79,205	1.6		168,038	4.5
Revenues	\$	4,690,540	100.0 %	\$	4,824,698	100.0 %	\$	3,758,144	100.0 %

(1) Americas includes revenues from customers in North, Central and South America.

(2) EMEA includes revenues from customers in Western Europe and the Middle East.

(3) APAC, or Asia Pacific, includes revenues from customers in East Asia, Southeast Asia and Australia.

(4) CEE includes revenues from customers in Belarus, Georgia, Kazakhstan, Russia, Ukraine and Uzbekistan. On July 26, 2023, the Company completed the sale of its remaining holdings in Russia to a third-party.

During the year ended December 31, 2023, revenues in the Americas, our largest geography, were \$2.743 billion, decreasing \$144.5 million, or 5.0%, from \$2.887 billion reported for the year ended December 31, 2022, largely due to a ramp down initiated in the fourth quarter of 2022 of a large transformation program at a customer that was previously in our top 10 customers as well as reduced spending at certain other large accounts and generally slower growth in revenues across a range of customers in the geography. Revenues from this geography accounted for 58.4% of total revenues in 2023, a decrease from 59.9% in the prior year. The United States continued to be our largest customer location contributing revenues of \$2.634 billion in 2023 compared to \$2.761 billion in 2022.

Revenues in our EMEA geography were \$1.823 billion, an increase of \$84.9 million, or 4.9%, over \$1.738 billion in the previous year. Revenues in this geography accounted for 38.9% of consolidated revenues in 2023 as compared to 36.0% in the previous year. The top three revenue contributing customer location countries in EMEA were the United Kingdom, Switzerland and the Netherlands generating revenues of \$585.2 million, \$367.1 million and \$236.3 million in 2023, respectively, compared to \$619.3 million, \$323.4 million and \$215.4 million in 2022, respectively. Fluctuations in foreign currency exchange rates with the U.S. dollar, particularly the euro, Swiss franc and the British pound, during 2023 compared to the same period in the prior year positively impacted revenue growth in the EMEA geography by 2.0%. Revenues in the region benefited from acquisitions which contributed \$1.9 million to revenue growth in 2023.

During 2023, revenues in our CEE geography decreased \$56.2 million, or 71.0%, from the previous year. In 2023, revenues in CEE included \$13.3 million of revenues from customers in Russia, compared to \$64.7 million in 2022. On March 4, 2022, we announced our decision to discontinue our services to customers located in Russia and on July 26, 2023, we completed the sale of our remaining holdings in Russia to a third-party. As a result of this sale, the revenues from this geography are expected to dissipate in the future.

Revenues from customers in locations in our APAC region comprised 2.2% of total revenues in 2023, a level consistent with the prior year.

Discussion of revenues from 2022 as compared to 2021 is included in “Part II. Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations — Results of Operations” of our Annual Report on Form 10-K for the year ended December 31, 2022.

Revenues by Customer Concentration

We have long-standing relationships with many of our customers and we seek to grow revenues from our existing customers by continually expanding the scope and size of our engagements. Revenues derived from these customers may fluctuate as these accounts mature, upon beginning or completion of multi-year projects or due to external economic environment trends. We believe there is a significant potential for future growth as we expand our capabilities and offerings within existing customers. In addition, we remain committed to diversifying our client base and adding more customers to our client mix through organic growth and strategic acquisitions, and over the long-term, we expect revenue concentration from our top customers to decrease.

The following table presents revenues contributed by our customers by amount and as a percentage of our revenues for the periods indicated:

	Year Ended December 31,								
	2023		2022		2021				
	(in thousands, except percentages)								
Top five customers	\$	780,606	16.6 %	\$	793,603	16.4 %	\$	682,147	18.2 %
Top ten customers	\$	1,109,033	23.6 %	\$	1,149,966	23.8 %	\$	966,486	25.7 %
Top twenty customers	\$	1,660,174	35.4 %	\$	1,698,916	35.2 %	\$	1,394,546	37.1 %
Customers below top twenty	\$	3,030,366	64.6 %	\$	3,125,782	64.8 %	\$	2,363,598	62.9 %

The following table shows the number of customers grouped by revenues recognized by the Company for each year presented:

	Year Ended December 31,		
	2023	2022	2021
Over \$20 Million	44	49	40
\$10 - \$20 Million	56	51	38
\$5 - \$10 Million	76	85	63
\$1 - \$5 Million	305	303	271
\$0.5 - \$1 Million	175	185	133

Revenues by Service Offering

Our service arrangements have been evolving to provide more customized and integrated solutions to our customers where we combine software engineering with customer experience design, business consulting and technology innovation services. We are continually expanding our service capabilities, moving beyond traditional services into business consulting, design and physical product development.

The following table shows revenues by service offering as an amount and as a percentage of our revenues for the years indicated:

	Year Ended December 31,					
	2023		2022		2021	
	(in thousands, except percentages)					
Professional services	\$	4,661,733	99.4 %	\$	4,800,047	99.5 %
Licensing and other revenues		28,807	0.6 %		24,651	0.5 %
Revenues	\$	4,690,540	100.0 %	\$	4,824,698	100.0 %

See Note 13 “Revenues” in the notes to our consolidated financial statements in this Annual Report on Form 10-K for more information regarding our contract types and related revenue recognition policies.

Cost of Revenues (Exclusive of Depreciation and Amortization)

The principal components of our cost of revenues (exclusive of depreciation and amortization) are salaries, bonuses, fringe benefits, stock-based compensation, project-related travel costs and fees for subcontractors who are assigned to customer projects. Salaries and other compensation expenses of our delivery professionals are reported as cost of revenues regardless of whether the employees are actually performing services for customers during a given period. Our employees are a critical asset, necessary for our continued success and therefore we expect to continue hiring talented employees and providing them with competitive compensation programs.

We manage the utilization levels of our delivery professionals through strategic hiring practices, dynamic management of staff, and efficient staffing of projects. Some of these professionals are hired and trained to work for specific customers or on specific projects and some of our offshore development centers are dedicated to specific customers or projects. Our staff utilization also depends on the general economy and its effect on our customers and their business decisions regarding the use of our services.

During the year ended December 31, 2023, cost of revenues (exclusive of depreciation and amortization) was \$3.257 billion, representing a decrease of 0.9% from \$3.287 billion reported last year. The decrease during the year ended December 31, 2023 compared to 2022, was primarily due to a decrease in compensation costs, other than stock-based compensation expense, resulting from a reduction in variable compensation expense attributable to a lower level of financial performance for the year, a 5.0% decline in the average number of production professionals and the impact from the Cost Optimization Program initiated in the third quarter of 2023. See Note 12 “Cost Optimization Program” for more information regarding the Company’s restructuring program. Other drivers that contributed to the year-over-year decrease were a decline in costs associated with our humanitarian efforts for Ukraine of \$17.7 million and our unbilled business continuity resources of \$5.3 million. The decreases were partially offset by higher expenses due to the impact of salary increases and promotions for existing delivery professionals, the relocation of employees to higher cost geographies, a \$21.3 million increase in stock-based compensation expense, and a 1.2% unfavorable impact from changes in foreign currency exchange rates.

Expressed as a percentage of revenues, cost of revenues (exclusive of depreciation and amortization) was 69.4% and 68.1% during the years ended December 31, 2023 and 2022, respectively. The year-over-year increase is primarily due to lower utilization attributable to uneven demand for our services, a higher level of stock-based compensation expense, partially offset by the reduction in variable compensation expense attributable to a lower level of financial performance for the year, a decline in costs associated with our humanitarian efforts for Ukraine and unbilled business continuity resources.

Discussion of cost of revenues (exclusive of depreciation and amortization) from 2022 as compared to 2021 is included in “Part II. Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations — Results of Operations” of our Annual Report on Form 10-K for the year ended December 31, 2022.

Selling, General and Administrative Expenses

Selling, general and administrative expenses represent expenditures associated with promoting and selling our services and general and administrative functions of our business. These expenses include the costs of salaries, bonuses, fringe benefits, stock-based compensation, severance, bad debt, travel, legal and accounting services, insurance, facilities including operating leases, advertising, and other promotional activities. Additionally, selling, general and administrative expenses contain costs of relocating our employees and various one-time and unusual expenses such as impairment charges.

During the year ended December 31, 2023, selling, general and administrative expenses were \$815.1 million, representing a decrease of 6.6% as compared to \$872.8 million reported last year. The decrease in selling, general and administrative expenses during 2023 compared to 2022 was primarily due to a \$34.7 million decrease in personnel-related costs, other than stock-based compensation and severance expenses, resulting from a reduction in variable compensation expense attributable to a lower level of financial performance for the year and decreases in headcount, partially offset by the impacts from salary increases and promotions for existing professionals and relocation of employees to higher cost geographies. Other drivers that contributed to the year over year decrease were a \$36.9 million decrease of expenses associated with our geographic repositioning of our workforce, and a \$9.7 million decrease of expenses associated with our humanitarian efforts for Ukraine. The decreases were partially offset by a \$26.5 million increase in stock-based compensation expense and a \$29.0 million of employee separation costs incurred as part of the Cost Optimization Program initiated during the year ended December 31, 2023, See Note 12 “Cost Optimization Program” for more information regarding the Company’s restructuring program. Additionally, selling, general and administrative expenses for the year 2022 were impacted by the recognition of \$19.6 million of impairment charges related to our long-lived assets in Russia, \$17.1 million of charges related to employee separation costs in Russia, and \$5.1 million of bad debt expense attributable to customers located in Russia.

Expressed as a percentage of revenues, selling, general and administrative expenses decreased 0.7% to 17.4% for the year ended December 31, 2023 as compared to the prior year primarily driven by reductions in Russia-related impairment charges, expenses associated with the geographic repositioning of our workforce, costs related to our humanitarian efforts for Ukraine, and variable compensation expense.

Discussion of selling, general and administrative expenses from 2022 as compared to 2021 is included in “Part II. Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations — Results of Operations” of our Annual Report on Form 10-K for the year ended December 31, 2022.

Depreciation and Amortization Expense

Depreciation and amortization expense includes depreciation of physical assets used in the operation of our business such as computer equipment, software, buildings we purchased, leasehold improvements as well as various office furniture and equipment. Depreciation and amortization expense also includes amortization of acquired finite-lived intangible assets.

During the year ended December 31, 2023, depreciation and amortization expense was \$91.8 million, representing a decrease of \$0.5 million from \$92.3 million reported in the prior year. The decrease in depreciation and amortization expense was primarily the result of lower depreciation on furniture, fixtures, other equipment and computer hardware, partially offset by increased depreciation on software licenses and increased amortization of acquired finite-lived intangible assets. Expressed as a percentage of revenues, depreciation and amortization expense remained the same at 1.9% during the year ended December 31, 2023, as compared to 2022.

Discussion of depreciation and amortization expense from 2022 as compared to 2021 is included in “Part II. Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations — Results of Operations” of our Annual Report on Form 10-K for the year ended December 31, 2022.

Loss on Sale of Business

On July 26, 2023, the Company completed the sale of its remaining holdings in Russia to a third-party. The Company recorded a loss on sale of \$25.9 million during the year ended December 31, 2023, including the recognition of the accumulated currency translation loss related to this foreign entity that was previously included in Accumulated other comprehensive loss.

Interest and Other Income/(Loss), Net

Interest and other income/(loss), net includes interest earned on cash and cash equivalents, short-term investments, gains and losses from certain financial instruments, interest expense related to our borrowings, government grant income, and changes in the fair value of contingent consideration. Interest and other income/(loss), net increased from \$10.0 million during the year ended December 31, 2022 to \$51.1 million during the year ended December 31, 2023. This increase was largely driven by a \$40.7 million increase in interest income from our cash and cash equivalents and short-term investments resulting from improved interest rates, and by an \$8.3 million decrease in loss due to the change in fair value of contingent consideration, partially offset by a \$3.2 million decrease in government grant income and a \$2.6 million increase in interest expense.

Discussion of Interest and other income/(loss), net from 2022 as compared to 2021 is included in “Part II. Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations — Results of Operations” of our Annual Report on Form 10-K for the year ended December 31, 2022.

Provision for Income Taxes

Determining the consolidated provision for income tax expense, deferred income tax assets and liabilities and any potential related valuation allowances involves judgment. We consider factors that may contribute, favorably or unfavorably, to the overall annual effective tax rate in the current year as well as the future. These factors include statutory tax rates and tax law changes in the countries where we operate and excess tax benefits upon vesting or exercise of equity awards as well as consideration of any significant or unusual items.

As a global company, we are required to calculate and provide for income taxes in each of the jurisdictions in which we operate. During 2023, 2022 and 2021, we had \$325.7 million, \$428.7 million and \$404.9 million, respectively, in income before provision for income taxes attributed to our foreign jurisdictions. Changes in the geographic mix or level of annual pre-tax income can also affect our overall effective income tax rate.

Our provision for income taxes includes the impact of provisions established for uncertain income tax positions, as well as the related net interest and penalty expense. Tax exposures can involve complex issues and may require an extended period to resolve. Although we believe we have adequately reserved for our uncertain tax positions, we cannot provide assurance that the final tax outcome of these matters will not be different from our current estimates. We adjust these reserves after consideration of changes in facts and circumstances, such as the closing of a tax audit, statute of limitation lapse or the refinement of an estimate. To the extent that the final tax outcome of these matters differs from the amounts recorded, such differences will impact the provision for income taxes in the period in which such determination is made.

The provision for income taxes was \$119.5 million in 2023 and \$87.8 million in 2022. The increase was primarily driven by a significant decrease in excess tax benefits recorded upon vesting or exercise of stock-based awards which were \$19.8 million in 2023 compared to \$35.1 million in 2022, as well as an increase in pre-tax income and U.S. state tax. The effective tax rate increased from 17.3% in 2022 to 22.3% in 2023 primarily due to the decrease in excess tax benefits recorded upon vesting or exercise of stock-based awards, as well as an increase in U.S. state tax and losses in certain foreign jurisdictions with no corresponding tax benefit.

Discussion of the provision for income taxes from 2022 as compared to 2021 is included in “Part II. Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations — Results of Operations” of our Annual Report on Form 10-K for the year ended December 31, 2022.

Foreign Exchange Loss

For discussion of the impact of foreign exchange fluctuations see “Item 7A. Quantitative and Qualitative Disclosures About Market Risk — Foreign Exchange Risk.”

Results by Business Segment

Our operations consist of three reportable segments: North America, Europe, and Russia. The segments represent components of EPAM for which separate financial information is available and used on a regular basis by our chief executive officer, who is also our chief operating decision maker (“CODM”), to determine how to allocate resources and evaluate performance. Our CODM makes business decisions based on segment revenues and segment operating profits. Segment operating profit is defined as income from operations before unallocated costs. Expenses included in segment operating profit consist principally of direct selling and delivery costs as well as an allocation of certain shared services expenses. Certain corporate expenses are not allocated to specific segments as these expenses are not controllable at the segment level. Such expenses include certain types of professional fees, certain taxes included in operating expenses, compensation to non-employee directors and certain other general and administrative expenses, including compensation of specific groups of non-production employees. In addition, the Company does not allocate stock-based compensation, amortization of intangible assets acquired through business combinations, goodwill and other asset impairment charges, acquisition-related costs and certain other one-time charges and benefits. These unallocated amounts are combined with total segment operating profit to arrive at consolidated income from operations.

We manage our business primarily based on the managerial responsibility for the client base and market. As managerial responsibility for a particular customer relationship generally correlates with the customer’s geographic location, there is a high degree of similarity between customer locations and the geographic boundaries of our reportable segments. In some cases, managerial responsibility for a particular customer is assigned to a management team in another region and is usually based on the strength of the relationship between customer executives and particular members of EPAM’s senior management team. In such cases, the customer’s activity would be reported through the respective management team member’s reportable segment. Our Europe segment includes our business in the APAC region, which is managed by the same management team.

On July 26, 2023, we completed the sale of our remaining holdings in Russia to a third party. As a result of this sale, we no longer have operations associated with this segment. See Note 2 “Impact of the Invasion of Ukraine” for more information.

Revenues from external customers and operating profit/(loss), before unallocated expenses, by reportable segments for the years ended December 31, 2023, 2022 and 2021 were as follows:

	Year Ended December 31,		
	2023	2022	2021
	(in thousands)		
Segment revenues:			
North America	\$ 2,765,022	\$ 2,898,554	\$ 2,242,248
Europe	1,909,443	1,853,056	1,350,484
Russia	16,075	73,088	165,412
Total segment revenues	\$ 4,690,540	\$ 4,824,698	\$ 3,758,144
Segment operating profit/(loss):			
North America	\$ 520,945	\$ 589,412	\$ 462,798
Europe	250,634	223,276	233,727
Russia	(5,866)	(13,460)	32,547
Total segment operating profit	\$ 765,713	\$ 799,228	\$ 729,072

North America Segment

During 2023, North America segment revenues decreased \$133.5 million, or 4.6%, from the previous year. Revenues from our North America segment represented 58.9% of total segment revenues, a decrease from 60.1% reported in the corresponding period of 2022. Acquisitions contributed \$8.2 million to North America segment revenues during 2023. During 2023 as compared to 2022, North America segment operating profits decreased \$68.5 million, or 11.6%, to \$520.9 million. Expressed as a percentage of revenue, North America segment operating profit decreased to 18.8% in 2023 as compared to 20.3% in 2022. This decrease is primarily attributable to lower utilization, partially offset by a decrease in variable compensation expense as a percentage of segment revenues during 2023 compared to 2022.

The following table presents North America segment revenues by industry vertical for the periods indicated:

Industry Vertical	Year Ended December 31,		Change	
	2023	2022	Dollars	Percentage
	(in thousands, except percentages)			
Software & Hi-Tech	\$ 552,492	\$ 655,122	\$ (102,630)	(15.7) %
Financial Services	538,837	522,970	15,867	3.0 %
Travel & Consumer	472,350	505,227	(32,877)	(6.5) %
Business Information & Media	429,800	467,664	(37,864)	(8.1) %
Life Sciences & Healthcare	429,245	454,102	(24,857)	(5.5) %
Emerging Verticals	342,298	293,469	48,829	16.6 %
Revenues	\$ 2,765,022	\$ 2,898,554	\$ (133,532)	(4.6) %

During the year ended December 31, 2023, Software & Hi-Tech remained the largest industry vertical in the North America segment which was a result of the continued focus on engaging with our technology customers. However, a reduction in revenues from a former top 20 customer and overall declines in the technology sector in the U.S. during 2023 impacted the revenues in this vertical. Financial services grew 3.0% in 2023 compared to the prior year primarily due to growth in demand from a group of wealth management and insurance customers. Travel and Consumer declined 6.5% during 2023 compared to the prior year primarily due to declines from customers in the retail industry, partially offset by growth from our travel customers. During the year ended December 31, 2023, revenues from the Business Information & Media vertical experienced a decrease of 8.1% primarily due to declines from customers in the information providing and credit reporting sectors. Life Sciences & Healthcare declined 5.5% during 2023 compared to the prior year primarily due to a ramp down of a large transformation program at a customer that was previously one of our top 10 customers. Emerging Verticals experienced 16.6% growth during 2023 compared to the prior year due to growth from various customers in industries such as energy, education, manufacturing and automotive.

Europe Segment

During 2023, Europe segment revenues were \$1.909 billion, reflecting an increase of \$56.4 million, or 3.0%, from last year. Acquisitions contributed \$2.2 million to Europe segment revenues during 2023. Revenues were positively impacted by changes in foreign currency exchange rates during 2023. Had our Europe segment revenues been expressed in constant currency terms using the exchange rates in effect during 2022, we would have reported revenue growth of 1.1%. Revenues from our Europe segment represent 40.7% and 38.4% of total segment revenues during 2023 and 2022, respectively.

During 2023, Europe segment operating profits increased \$27.4 million, or 12.3% as compared to last year, to \$250.6 million. Europe segment operating profit represented 13.1% of Europe segment revenues as compared to 12.0% in 2022. Europe segment operating profit was positively impacted by changes in foreign currency exchange rates and a decrease in variable compensation expense, partially offset by lower utilization during 2023 compared to 2022.

The following table presents Europe segment revenues by industry vertical for the periods indicated:

Industry Vertical	Year Ended December 31,		Change	
	2023	2022	Dollars	Percentage
	(in thousands, except percentages)			
Travel & Consumer	\$ 596,830	\$ 571,437	\$ 25,393	4.4 %
Financial Services	472,146	460,858	11,288	2.4 %
Business Information & Media	323,985	341,344	(17,359)	(5.1) %
Software & Hi-Tech	153,683	136,273	17,410	12.8 %
Life Sciences & Healthcare	60,549	52,465	8,084	15.4 %
Emerging Verticals	302,250	290,679	11,571	4.0 %
Revenues	\$ 1,909,443	\$ 1,853,056	\$ 56,387	3.0 %

Travel & Consumer remained the largest industry vertical in the Europe segment during the year ended December 31, 2023. The Europe segment benefited from 4.4% growth in Travel & Consumer during the year ended December 31, 2023, as compared to 2022, primarily due to increased demand from customers in the retail and distribution industries. During the year ended December 31, 2023, revenues in Financial Services experienced 2.4% growth primarily driven by increased revenues from insurance customers as well as customers who provide other financial services. Revenues in Business Information & Media decreased during 2023 primarily due to decreased demand from one of our top 10 customers. Revenue growth in Software & Hi-Tech during the year ended December 31, 2023, as compared to 2022, was largely attributable to the expansion of services provided to one of our top 20 customers as well as growth in customers outside of our top 100 customers. Revenues in Emerging Verticals grew 4.0% during 2023, with growth experienced from customers in the energy and automotive industries, and partially offset by declines from customers in the telecommunications industry.

Russia Segment

On March 4, 2022, we announced that we would discontinue services to customers located in Russia and would provide transition support for customers in this market. In April 2022, we began the process of a phased exit of our operations in Russia and on July 26, 2023, we completed the sale of our remaining holdings in Russia to a third party. As a result of this sale, the Company no longer has operations associated with this segment. See Note 2 “Impact of the Invasion of Ukraine” for more information regarding our decisions to no longer serve customers in Russia and exit our operations in Russia.

During the year ended December 31, 2023, revenues from our Russia segment decreased \$57.0 million, or 78.0%, as compared to the corresponding period of 2022 and accounted for 0.3% of total segment revenues. During the year ended December 31, 2023, segment operating loss from the Russia segment was \$5.9 million, representing an improvement of \$7.6 million, as compared to a segment operating loss of \$13.5 million in the corresponding period last year largely driven by higher costs incurred in the prior year related to Russia’s invasion of Ukraine and the Company’s decision to exit Russia. As a percentage of Russia segment revenues, the Russia segment’s operating loss increased to 36.5% during the year ended December 31, 2023, from 18.4% in the corresponding period of 2022 as we continued to decrease our revenues in the Russia segment.

Discussion of segment results from 2022 as compared to 2021 is included in “Part II. Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations — Results of Operations” of our Annual Report on Form 10-K for the year ended December 31, 2022.

Effects of Inflation

Economies in many countries where we operate have periodically experienced high rates of inflation, including during 2023. Periods of higher inflation may affect various economic sectors in those countries and increase our cost of doing business there. We do not believe that inflation has had a material impact on our business, results of operations or financial condition to date. We continue to track the impact of inflation, particularly on wages, while attempting to minimize its effects through pricing and cost management strategies. A higher-than-normal rate of inflation in the future could adversely affect our operations and financial condition.

Liquidity and Capital Resources

Capital Resources

Our cash generated from operations has been our primary source of liquidity to fund operations, investments to support the growth of our business and share repurchases. As of December 31, 2023, our principal sources of liquidity were cash and cash equivalents totaling \$2.036 billion, short-term investments totaling \$60.7 million as well as \$675.0 million of available borrowings under our revolving credit facility. See Note 10 “Debt” in the notes to our consolidated financial statements in this Annual Report on Form 10-K for information regarding the terms of our revolving credit facility and information about debt.

Cash Flows

The following table summarizes our cash flows for the periods indicated:

	For the Years Ended December 31,		
	2023	2022	2021
	(in thousands)		
Consolidated Statements of Cash Flow Data:			
Net cash provided by operating activities	\$ 562,634	\$ 464,104	\$ 572,327
Net cash used in investing activities	(66,768)	(182,927)	(368,924)
Net cash used in financing activities	(165,773)	(2,021)	(59,557)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	29,379	(44,867)	(18,032)
Net increase in cash, cash equivalents and restricted cash	\$ 359,472	\$ 234,289	\$ 125,814
Cash, cash equivalents and restricted cash, beginning of period	1,683,636	1,449,347	1,323,533
Cash, cash equivalents and restricted cash, end of period	\$ 2,043,108	\$ 1,683,636	\$ 1,449,347

Operating Activities

Our largest source of cash provided by operating activities is cash generated from our professional services that we provide to our customers. Our primary uses of cash from operating activities include compensation to our employees and related costs, payments for leased facilities, various general corporate expenditures and income tax payments. Since the invasion of Ukraine in 2022, our operating activities included using cash on humanitarian efforts for Ukraine and geographic repositioning of our workforce.

Cash provided by operating activities in 2023 was primarily driven by the Company's cash collections from customer contracts, which was partially offset by variable compensation payments, severance payments related to the Cost Optimization Program and other working capital outflows. Cash provided by operating activities in 2022 was primarily driven by the Company's cash collections from customer contracts, which were partially offset by variable compensation payments and EPAM's humanitarian efforts for Ukraine and geographic repositioning.

Investing Activities

Our primary uses of cash from investing activities consist of purchases of computer hardware, software and office equipment, as well as investments into office buildings and new businesses. We also use cash for short-term investments and time deposits, and receive cash upon maturity of these deposits. Most of our investments are typically short-term and cash equivalent in nature but we may invest in longer term deposits if the terms are favorable. The cash used in investing activities during 2023 was primarily attributable to \$28.4 million used for capital expenditures and \$24.8 million used for the acquisitions of businesses, net of cash acquired. The cash used in investing activities during 2022 was primarily attributable to \$81.6 million used for capital expenditures, an investment of \$60.0 million in time deposits and \$10.6 million used for the acquisitions of businesses, net of cash acquired.

Financing Activities

Cash used in financing activities mainly consists of repurchasing shares of EPAM common stock under a share repurchase program announced in 2023, payments of withholding taxes related to net share settlements of restricted stock units, repayments of debt, and settlements of the acquisition-date fair value of contingent consideration related to acquisitions of businesses. Cash provided by financing activities mainly consists of the proceeds from the purchases of shares under our ESPP and exercises of stock options issued under our long-term incentive plans as well as proceeds from debt. We typically do not rely on debt to supplement our cash flows. Net cash used in financing activities increased from 2022 to 2023 primarily due to \$164.9 million of payments to repurchase our common stock.

Discussion of the comparison of the cash flows between 2022 and 2021 is included in "Part II. Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations — Liquidity and Capital Resources" of our Annual Report on Form 10-K for the year ended December 31, 2022.

Future Capital Requirements

We believe that our existing cash, cash equivalents and short-term investments, combined with our expected cash flow from operations will be sufficient to meet our projected operating and capital expenditure requirements for at least the next twelve months and that we possess the financial flexibility to execute our strategic objectives, including the ability to make acquisitions and strategic investments in the foreseeable future. However, the invasion of Ukraine, other various geopolitical events, and the related measures to contain their impact, have caused and may continue to cause material disruptions in financial markets and economies. These disruptions may increase our costs of capital, decrease returns on investment, and otherwise adversely affect our business, results of operations, financial condition and liquidity.

Our ability to generate cash is subject to our performance, general economic conditions, industry trends and other factors including the impact of the invasion of Ukraine, as described elsewhere in this Management's Discussion and Analysis of Financial Condition and Results of Operations. We may require additional cash resources due to changed business conditions or other future developments, including any investments or acquisitions we may decide to pursue. To the extent that existing cash, cash equivalents, short-term investments, and operating cash flows are insufficient to fund our future activities and requirements, we may need to raise additional funds through public or private equity or debt financing. If we issue equity securities in order to raise additional funds, substantial dilution to existing stockholders may occur. If we raise cash through the issuance of additional indebtedness, we may be subject to additional contractual restrictions on our business and there is no assurance that we would be able to raise additional funds on favorable terms or at all. Our ability to expand and grow our business in accordance with current plans and to meet our long-term capital requirements will depend on many factors, including the rate at which our cash flows increase or decrease and the availability of public and private debt and equity financing.

See Note 9 "Leases", Note 10 "Debt", Note 17 "Commitments and Contingencies" in the notes to our consolidated financial statements in this Annual Report on Form 10-K for information regarding our various contractual obligations and capital expenditure requirements.

Off-Balance Sheet Commitments and Arrangements

We do not have any material obligations under guarantee contracts or other contractual arrangements other than as disclosed in Note 17 "Commitments and Contingencies" in the notes to our consolidated financial statements in this Annual Report on Form 10-K. We have not entered into any transactions with unconsolidated entities where we have financial guarantees, subordinated retained interests, derivative instruments, or other contingent arrangements that expose us to material continuing risks, contingent liabilities, or any other obligation under a variable interest in an unconsolidated entity that provides financing, liquidity, market risk, or credit risk support to us, or engages in leasing, hedging, or research and development services with us.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

We are exposed to certain market risks in the ordinary course of our business. These risks primarily result from changes in concentration of credit risks, foreign currency exchange rates and interest rates. In addition, our global operations are subject to risks related to differing economic conditions, civil unrest, political instability or uncertainty, military activities, broad-based sanctions, differing tax structures, and other regulations and restrictions.

Concentration of Credit and Other Credit Risks

Financial instruments that potentially subject us to significant concentrations of credit risk consist primarily of cash, cash equivalents, short-term investments and trade receivables.

We maintain our cash, cash equivalents and short-term investments with financial institutions. We believe that our credit policies reflect normal industry terms and business risk. We do not anticipate non-performance by the counterparties.

We have cash in several countries, including Ukraine and Belarus, where the banking sector remains subject to periodic instability; banking and other financial systems in these countries generally do not meet the banking standards of more developed markets; and bank deposits made by corporate entities are not insured. As of December 31, 2023, we had \$45.8 million of cash and cash equivalents in banks in Ukraine and \$38.3 million of cash and cash equivalents in banks in Belarus. Cash in Ukraine and Belarus is used for the operational needs of the local entities and cash balances change with the expected operating needs of these entities. We regularly monitor cash held in these countries and, to the extent the cash held exceeds amounts required to support our operations in these countries, we distribute the excess funds into markets with more developed banking sectors to the extent it is possible to do so. We place our cash and cash equivalents with financial institutions considered stable in the region, limit the amount of credit exposure with any one financial institution and conduct ongoing evaluations of the credit worthiness of the financial institutions with which we do business. However, a banking crisis, bankruptcy or insolvency of banks that process or hold our funds, or sanctions may result in the loss of our deposits or adversely affect our ability to complete banking transactions, which could adversely affect our business and financial condition.

Trade receivables are generally dispersed across many customers operating in different industries; therefore, concentration of credit risk is limited and we do not believe significant credit risks existed as of December 31, 2023. Though our results of operations depend on our ability to successfully collect payment from our customers for work performed, historically, credit losses and write-offs of trade receivables have not been material to our consolidated financial statements. If any of our customers enter bankruptcy protection or otherwise take steps to alleviate their financial distress, our credit losses and write-offs of trade receivables could increase, which would negatively impact our results of operations.

Interest Rate Risk

We are exposed to market risk from changes in interest rates. Exposure to interest rate risk results primarily from variable rates related to cash and cash equivalent deposits, short-term investments, and our borrowings, mainly under our 2021 Credit Agreement, which is subject to a variety of rates depending on the currency and timing of funds borrowed. We do not believe we are exposed to material direct risks associated with changes in interest rates related to these deposits, investments and borrowings.

Foreign Exchange Risk

Our global operations are conducted predominantly in U.S. dollars. Other than U.S. dollars, the Company generates revenues in various currencies, principally, euros, British pounds, Swiss francs, Canadian dollars, and, prior to our exit from Russia, Russian rubles and incurs expenditures principally in euros, Polish zlotys, Indian rupees, British pounds, Swiss francs, Hungarian forints, Mexican pesos, Colombian pesos, Canadian dollars, Chinese yuan renminbi, and, prior to our exit from Russia, Russian rubles. As a result, currency fluctuations, specifically the depreciation of the euro, British pound, and Canadian dollar and the appreciation of the Hungarian forint, Polish zloty, Indian rupee and Chinese yuan renminbi relative to the U.S. dollar, could negatively impact our results of operations. During the year ended December 31, 2023, approximately 34.2% of consolidated revenues and 58.6% of operating expenses were denominated in currencies other than the U.S. dollar.

Prior to March 4, 2022, when EPAM announced it would discontinue services to customers located in Russia in response to the attacks on Ukraine, the Russian ruble was one of our significant currencies in which we generated revenues and incurred expenses and it had a significant foreign exchange impact on our operations. After the announcement, our revenues, expenses, assets, liabilities and equity denominated in Russian rubles began to decrease and on July 26, 2023, we completed the sale of our remaining holdings in Russia to a third-party. We recorded a loss on sale of \$25.9 million during the year ended December 31, 2023, including the recognition of the accumulated currency translation loss related to this foreign entity that was previously included in Accumulated other comprehensive loss in the consolidated financial statements.

During the year ended December 31, 2023, our foreign exchange loss was \$15.8 million compared to a \$75.7 million loss reported last year. Foreign exchange loss for the year 2022 was primarily driven by the impact of appreciation of the Russian ruble on the Company's intercompany payables denominated in Russian rubles and U.S. dollar denominated assets held by our subsidiaries in Russia, and losses from our foreign exchange forward contracts associated with the Russian ruble during the first quarter of 2022.

To manage the risk of fluctuations in foreign currency exchange rates and hedge a portion of our forecasted foreign currency denominated operating expenses in the normal course of business, we implemented a hedging program through which we enter into a series of foreign exchange forward contracts with durations of twelve months or less that are designated as cash flow hedges of forecasted Polish zloty, Indian rupee, and Hungarian forint transactions. As of December 31, 2023, all of our foreign exchange forward contracts, were designated as hedges and there is no financial collateral (including cash collateral) required to be posted related to the foreign exchange forward contracts. As of December 31, 2023, the net unrealized gain from these hedges was \$10.2 million.

During the first quarter of 2022, in response to the invasion of Ukraine, we de-designated our Russian ruble foreign exchange forward contracts as hedges and entered into offsetting foreign exchange forward contracts with the same counterparty. We determined it was probable the underlying forecasted foreign currency transactions which were hedged would not occur and reclassified the accumulated loss of \$43.9 million on the underlying hedge into income which is classified as foreign exchange loss in the consolidated statement of income.

Management supplements results reported in accordance with United States generally accepted accounting principles, referred to as GAAP, with non-GAAP financial measures. Management believes these measures help illustrate underlying trends in our business and uses the measures to establish budgets and operational goals, communicated internally and externally, for managing our business and evaluating its performance. When important to management's analysis, operating results are compared on the basis of "constant currency," which is a non-GAAP financial measure. This measure excludes the effect of foreign currency exchange rate fluctuations by translating the current period revenues and expenses into U.S. dollars at the weighted average exchange rates of the prior period of comparison.

During the year ended December 31, 2023, we reported a revenue decrease of 2.8% compared to the prior year. Had our consolidated revenues been expressed in constant currency terms using the exchange rates in effect during 2022, we would have reported revenue decline of 3.4%. During 2023, our revenues were positively impacted mainly by the appreciation of the euro, Swiss franc and British pound, partially offset by the depreciation of the Canadian dollar relative to the U.S. dollar. During the year ended December 31, 2023, we reported a decrease in income from operations of 12.5% as compared to the previous year. Had our consolidated results been expressed in constant currency terms using the exchange rates in effect during 2022, we would have reported a decrease in income from operations of 9.5%. Income from operations was negatively impacted by the appreciation of the Mexican peso, Polish zloty and the Armenian dram, and positively impacted by the appreciation of the euro, British pound and the Swiss franc and depreciation of the Indian rupee relative to the U.S. dollar during the year ended December 31, 2023 compared to 2022.

Item 8. Financial Statements and Supplementary Data

The information required is included in this Annual Report on Form 10-K beginning on page F-1.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures

Based on management's evaluation, with the participation of our Chief Executive Officer and Chief Financial Officer, as of the end of the period covered by this report, these officers have concluded that our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), are effective to provide reasonable assurance that information required to be disclosed by us in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms, and is accumulated and communicated to management, including our principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosure.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting during the quarter ended December 31, 2023 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. generally accepted accounting principles.

Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the criteria established in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

Based on this assessment, management concluded that our internal control over financial reporting was effective as of December 31, 2023 to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. generally accepted accounting principles.

The effectiveness of our internal control over financial reporting as of December 31, 2023 has been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report, which appears in “Part IV. Item 15 Exhibits, Financial Statement Schedule” of this Annual Report on Form 10-K.

Inherent Limitations on Effectiveness of Controls

Our management, including the CEO and CFO, does not expect that our disclosure controls or our internal control over financial reporting will prevent or detect all errors and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system’s objectives will be met. The design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Further, because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud, if any, have been detected. The design of any system of controls is based in part on certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Projections of any evaluation of the effectiveness of controls to future periods are subject to risks. Over time, controls may become inadequate because of changes in conditions or deterioration in the degree of compliance with policies or procedures.

Item 9B. Other Information

None.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

We incorporate by reference the information required by this Item from the information set forth under the captions “Board of Directors”, “Corporate Governance”, and “Our Executive Officers” in our definitive proxy statement for our 2024 annual meeting of stockholders, to be filed within 120 days after the end of the year covered by this Annual Report on Form 10-K, pursuant to Regulation 14A under the Exchange Act (our “2024 Proxy Statement”).

Item 11. Executive Compensation

We incorporate by reference the information required by this Item from the information set forth under the captions “Executive Compensation” and “Compensation Committee Interlocks and Insider Participation” in our 2024 Proxy Statement.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

We incorporate by reference the information required by this Item from the information set forth under the caption “Security Ownership of Certain Beneficial Owners and Management” in our 2024 Proxy Statement.

Securities Authorized for Issuance under Equity Compensation Plans

The following table provides information about the Company’s common stock that may be issued upon exercise of options and rights under the 2015 Long-Term Incentive Plan (the “2015 Plan”), the 2012 Long-Term Incentive Plan (the “2012 Plan”), the 2022 Non-Employee Directors Compensation Plan (the “2022 Directors Plan”), the 2012 Non-Employee Directors Compensation Plan (the “2012 Directors Plan”) and the 2021 Employee Stock Purchase Plan (“ESPP”) as of December 31, 2023:

December 31, 2020

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in the first column)
	(in thousands, except dollar amounts)		
Equity compensation plans approved by security holders	2,716 ⁽¹⁾	\$ 156.11 ⁽²⁾	4,078 ⁽³⁾
Equity compensation plans not approved by security holders	—	\$ —	—
Total	2,716	\$ 156.11	4,078

(1) Includes the number of shares of common stock to be issued under the 2015 Plan, the 2012 Plan, the 2022 Directors Plan and the 2012 Directors Plan. See Note 14 “Stockholders' Equity” for more information regarding our plans and awards.

(2) Represents the weighted average exercise price of stock options only.

(3) Represents the number of shares available for future issuances under the 2015 Plan, the 2022 Directors Plan and the ESPP.

Item 13. Certain Relationships and Related Transactions, and Director Independence

We incorporate by reference the information required by this Item from the information set forth under the caption “Certain Relationships and Related Transactions and Director Independence” in our 2024 Proxy Statement.

Item 14. Principal Accountant Fees and Services

We incorporate by reference the information required by this Item from the information set forth under the caption “Independent Registered Public Accounting Firm” in our 2024 Proxy Statement.

PART IV

Item 15. Exhibits, Financial Statement Schedules

(a) We have filed the following documents as part of this annual report:

1. Audited Consolidated Financial Statements

Reference is made to the Index to Consolidated Financial Statements on Page F-1

2. Financial Statement Schedules

Reference is made to the Index to Consolidated Financial Statements on Page F-1

Schedule II Valuation and Qualifying Accounts is filed as part of this Annual Report on Form 10-K and should be read in conjunction with our audited consolidated financial statements and the related notes.

3. Exhibits

A list of exhibits required to be filed as part of this Annual Report on Form 10-K is set forth below:

Exhibit Number	Description
3.1	Certificate of Incorporation (incorporated herein by reference to Exhibit 3.1 to the Company's Form 10-K for the fiscal year ended December 31, 2011, SEC File No. 001-35418, filed March 30, 2012)
3.2	Amended and Restated Bylaws (incorporated by reference to Exhibit 3.2 to the Company's Current Report on Form 8-K filed July 5, 2023, SEC file No. 001-35418)
4.1	Form of Common Stock Certificate (incorporated herein by reference to Exhibit 4.1 to Amendment No. 6 to Form S-1, SEC File No. 333-174827, filed January 23, 2012 ("Amendment No. 6"))
4.2*	Description of the Registrant's Securities Registered Under Section 12 of the Securities Exchange Act of 1934
10.1†	EPAM Systems, Inc. 2012 Long-Term Incentive Plan (incorporated herein by reference to Exhibit 10.12 to Amendment No. 6)
10.2†	Form of Senior Management Non-Qualified Stock Option Award Agreement (under the EPAM Systems, Inc. 2012 Long-Term Incentive Plan) (incorporated herein by reference to Exhibit 10.13 to Amendment No. 6)
10.3†	Restricted Stock Award Agreement by and between Karl Robb and EPAM Systems, Inc. dated January 16, 2012 (incorporated herein by reference to Exhibit 10.14 to Amendment No. 6)
10.4†	Form of Chief Executive Officer Restricted Stock Unit Award Agreement (under the EPAM Systems, Inc. 2012 Long-Term Incentive Plan) (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2014, SEC File No. 001-35418, filed May 7, 2014 (the "Q1 2014 Form 10-Q"))
10.5†	Form of Senior Management Restricted Stock Unit Award Agreement (under the EPAM Systems, Inc. 2012 Long-Term Incentive Plan) (incorporated by reference to Exhibit 10.2 to the Q1 2014 Form 10-Q)
10.6†	Form of Chief Executive Officer Non-Qualified Stock Option Award Agreement (under the EPAM Systems, Inc. 2012 Long-Term Incentive Plan) (incorporated by reference to Exhibit 10.3 to the Q1 2014 Form 10-Q)
10.7†	Form of Chief Executive Officer Restricted Stock Unit Award Agreement (under the EPAM Systems, Inc. 2012 Long-Term Incentive Plan) (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2015, SEC File No. 001-35418, filed May 7, 2015 (the "Q1 2015 Form 10-Q"))
10.8†	Form of Senior Management Restricted Stock Unit Award Agreement (under the EPAM Systems, Inc. 2012 Long-Term Incentive Plan) (incorporated by reference to Exhibit 10.2 to the Q1 2015 Form 10-Q)
10.9†	EPAM Systems, Inc. 2015 Long-Term Incentive Plan (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2021 SEC File No. 001-35418, filed May 6, 2021 (the "Q1 2021 10-Q"))
10.10†	Form of Chief Executive Officer Non-Qualified Stock Option Award Agreement (incorporated by reference to Exhibit 10.1 to the Company's Form 10-Q for the quarter ended March 31, 2023 (SEC File No. 001-35418, filed May 5, 2023 (the "Q1 2023 10-Q"))
10.11†	Form of Chief Executive Officer Restricted Stock Unit Award Agreement (incorporated by reference to Exhibit 10.3 to the Q1 2023 10-Q)
10.12†	Form of Global Non-Qualified Stock Option Award Agreement for Senior Managers (incorporated by reference to Exhibit 10.2 to the Q1 2023 10-Q)
10.13†	Form of Global Restricted Stock Unit Award Agreement for Senior Managers (incorporated by reference to Exhibit 10.4 to the Q1 2023 10-Q)
10.14†	2022 Amended and Restated EPAM Systems, Inc. Non-Employee Directors Compensation Plan (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed on June 3, 2022, SEC File No. 001-35418)
10.15†	Form of Non-Employee Director Restricted Stock Award Agreement (under the EPAM Systems, Inc. 2012 Non-Employee Directors Compensation Plan) (incorporated herein by reference to Exhibit 10.16 to Amendment No. 6)
10.16†	Form of Director Offer Letter (incorporated herein by reference to Exhibit 10.18 to Amendment No. 6)
10.17†	Executive Employment Agreement by and between Arkadiy Dobkin and EPAM Systems, Inc. dated January 20, 2006 (expired except with respect to Section 8) (incorporated herein by reference to Exhibit 10.19 to Amendment No. 6)
10.18†	Employment Contract by and between Balazs Fejes and EPAM Systems (Switzerland) GmbH, dated June 15, 2009 (incorporated herein by reference to Exhibit 10.21 to Amendment No. 6)

10.19†	Consultancy Agreement by and between Landmark Business Development Limited, Balazs Fejes and EPAM Systems, Inc. dated January 20, 2006 (expired except with respect to Section 8) (incorporated herein by reference to Exhibit 10.22 to Amendment No. 6)
10.20†	Form of nondisclosure, noncompete and nonsolicitation agreement (incorporated herein by reference to Exhibit 10.24 to Amendment No. 6)
10.21†	Form of Indemnification Agreement (incorporated herein by reference to Exhibit 10.25 to Amendment No. 6)
10.22†	Offer Letter by and between Boris Shnayder and EPAM Systems, Inc. dated June 20, 2015 (incorporated by reference to Exhibit 10.28 to the Company's Form 10-K for the year ended December 31, 2016 (the "2016 10-K"))
10.23†	Offer Letter by and between Jason Peterson and EPAM Systems, Inc. dated March 16, 2017 (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed March 29, 2017, SEC file No. 001-35418)
10.24†	EPAM Systems, Inc. Amended Non-Employee Directors Compensation Policy (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report for the quarter ended March 31, 2017, SEC File No., 001-35418, filed May 8, 2017 (the "Q1 2017 Form 10-Q"))
10.25†*	Amended Non-Employee Director Compensation Policy (effective January 1, 2024)
10.26†	EPAM Systems, Inc. 2017 Non-Employee Directors Deferral Plan (incorporated by reference to Exhibit 10.2 to the Q1 2017 Form 10-Q)
10.27†	Form of Non-Employee Director Restricted Stock Unit Award Agreement (incorporated by reference to Exhibit 10.3 to the Q1 2017 Form 10-Q)
10.28†	Form of Director Deferral Election Form (incorporated by reference to Exhibit 10.4 to the Q1 2017 Form 10-Q)
10.29†	EPAM Systems, Inc. 2021 Employee Stock Purchase Plan (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on June 10, 2021, SEC File No., 001-35418)
10.30	Amended and Restated Credit Agreement dated as of October 21, 2021 by and among EPAM Systems, Inc. (as borrower), the lenders and guarantors party thereto, and PNC Bank, National Association, as Administrative Agent, Swingline Loan Lender and Issuing Lender (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on October 25, 2021, SEC File No. 001-35418)
19.1	EPAM Insider Trading Policy (incorporated by reference to Exhibit 99.1 to the Company's Annual Report on Form 10-K filed on February 24, 2023, SEC File No. 001-35418)
21.1*	Subsidiaries of the Registrant
23.1*	Consent of Independent Registered Public Accounting Firm
31.1*	Certification of the Chief Executive Officer pursuant to Rule 13a-14(a)/15d-14(a) of the Securities Exchange Act of 1934
31.2*	Certification of the Chief Financial Officer pursuant to Rule 13a-14(a)/15d-14(a) of the Securities Exchange Act of 1934
32.1*	Certification of the Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32.2*	Certification of the Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
97.1*	EPAM Systems, Inc. Compensation Recoupment Policy
101.INS	XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File - (formatted as Inline XBRL and contained in Exhibit 101)
†	Indicates management contracts or compensatory plans or arrangements
*	Exhibits filed herewith

Item 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Date: February 22, 2024

EPAM SYSTEMS, INC.

By: /s/ Arkadiy Dobkin
Name: Arkadiy Dobkin
Title: Chairman, Chief Executive Officer and President
(principal executive officer)

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
<u>/s/ Arkadiy Dobkin</u> Arkadiy Dobkin	Chairman, Chief Executive Officer and President (principal executive officer)	February 22, 2024
<u>/s/ Jason Peterson</u> Jason Peterson	Senior Vice President, Chief Financial Officer and Treasurer (principal financial officer)	February 22, 2024
<u>/s/ Gary Abrahams</u> Gary Abrahams	Vice President, Corporate Controller, Chief Accounting Officer (principal accounting officer)	February 22, 2024
<u>/s/ Chandra McMahon</u> Chandra McMahon	Director	February 22, 2024
<u>/s/ DeAnne Aguirre</u> DeAnne Aguirre	Director	February 22, 2024
<u>/s/ Eugene Roman</u> Eugene Roman	Director	February 22, 2024
<u>/s/ Helen Shan</u> Helen Shan	Director	February 22, 2024
<u>/s/ Jill B. Smart</u> Jill B. Smart	Director	February 22, 2024
<u>/s/ Karl Robb</u> Karl Robb	Director	February 22, 2024
<u>/s/ Richard Michael Mayoras</u> Richard Michael Mayoras	Director	February 22, 2024
<u>/s/ Robert E. Segert</u> Robert E. Segert	Director	February 22, 2024

/s/ Ronald P. Vargo

Ronald P. Vargo

Director

February 22, 2024

EPAM SYSTEMS, INC.
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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of EPAM Systems, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of EPAM Systems, Inc. and subsidiaries (the "Company") as of December 31, 2023 and 2022, the related consolidated statements of income, comprehensive income, changes in equity, and cash flows, for each of the three years in the period ended December 31, 2023, and the related notes and the schedule listed in the Index at Item 15 (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2023 and 2022, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2023, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2023, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 22, 2024, expressed an unqualified opinion on the Company's internal control over financial reporting.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current-period audit of the financial statements that was communicated or required to be communicated to the audit committee and that (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Revenues — Refer to Notes 1 and 13 to the financial statements

Critical Audit Matter Description

The Company recognizes revenue when control of goods or services is passed to a customer in an amount that reflects the consideration the Company expects to be entitled to in exchange for those goods or services. Such control may be transferred over time or at a point in time depending on satisfaction of obligations stipulated by the contract. Although the Company generates the majority of its revenues under time-and-materials contracts, the Company also generates revenues from fixed-price contracts, which may exceed one year in duration. As the Company derives revenues from a variety of service arrangements, auditing revenue was challenging due to the extent of audit effort required to evaluate whether revenue was recorded in accordance with the terms of the contracts with the Company's customers.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to whether revenue was recorded in accordance with the terms of the contracts with the Company's customers included the following, among others:

- We tested the effectiveness of controls over revenue, including management's controls over (1) the determination of whether an arrangement with a customer meets the criteria to be considered a contract under ASC 606 and (2) the inputs used in and the mathematical accuracy of the contract revenue calculations and the terms of the related customer contracts.
- We selected a sample of recorded revenue transactions and (1) tested whether the underlying arrangement with the customer met the criteria to be considered a contract under ASC 606 as of the date the revenue was recorded and (2) recalculated the amount using the terms of the customer contract.
- We selected a sample of hours charged by the Company's employees in the Company's internal time tracking system, obtained support for whether such hours represented services provided to a customer, and tested whether the hours had been properly evaluated for inclusion in the Company's revenue calculations.

/s/ DELOITTE & TOUCHE LLP

Philadelphia, Pennsylvania
February 22, 2024

We have served as the Company's auditor since 2006.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of EPAM Systems, Inc.

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of EPAM Systems, Inc. and subsidiaries (the “Company”) as of December 31, 2023, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2023, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2023, of the Company and our report dated February 22, 2024, expressed an unqualified opinion on those financial statements.

Basis for Opinion

The Company’s management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying *Management’s Report on Internal Control Over Financial Reporting*. Our responsibility is to express an opinion on the Company’s internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company’s internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company’s internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company’s assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ DELOITTE & TOUCHE LLP

Philadelphia, Pennsylvania
February 22, 2024

EPAM SYSTEMS, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(In thousands, except par value)

	As of December 31, 2023	As of December 31, 2022
Assets		
Current assets		
Cash and cash equivalents	\$ 2,036,235	\$ 1,681,344
Trade receivables and contract assets, net of allowance of \$11,864 and \$15,310, respectively	897,032	932,626
Short-term investments	60,739	60,336
Prepaid and other current assets	97,355	85,319
Total current assets	3,091,361	2,759,625
Property and equipment, net	235,053	273,348
Operating lease right-of-use assets, net	134,898	148,780
Intangible assets, net	71,118	77,652
Goodwill	562,459	529,072
Deferred tax assets	197,901	172,797
Other noncurrent assets	59,575	47,877
Total assets	\$ 4,352,365	\$ 4,009,151
Liabilities		
Current liabilities		
Accounts payable	\$ 31,992	\$ 30,852
Accrued compensation and benefits expenses	412,747	475,871
Accrued expenses and other current liabilities	124,823	154,339
Income taxes payable, current	38,812	46,069
Operating lease liabilities, current	36,558	40,352
Total current liabilities	644,932	747,483
Long-term debt	26,126	27,693
Operating lease liabilities, noncurrent	109,261	122,317
Other noncurrent liabilities	100,576	108,648
Total liabilities	880,895	1,006,141
Commitments and contingencies (Note 17)		
Equity		
Stockholders' equity		
Common stock, \$0.001 par value; 160,000 authorized; 57,787 and 57,668 shares issued, 57,787 and 57,655 shares outstanding at December 31, 2023 and December 31, 2022, respectively	58	58
Additional paid-in capital	1,008,766	847,965
Retained earnings	2,501,107	2,248,948
Treasury stock	—	(118)
Accumulated other comprehensive loss	(39,040)	(95,321)
Total EPAM Systems Inc. stockholders' equity	3,470,891	3,001,532
Noncontrolling interest in consolidated subsidiaries	579	1,478
Total equity	3,471,470	3,003,010
Total liabilities and equity	\$ 4,352,365	\$ 4,009,151

The accompanying notes are an integral part of the consolidated financial statements.

EPAM SYSTEMS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF INCOME
(In thousands, except per share data)

	For the Years Ended December 31,		
	2023	2022	2021
Revenues	\$ 4,690,540	\$ 4,824,698	\$ 3,758,144
Operating expenses:			
Cost of revenues (exclusive of depreciation and amortization)	3,256,514	3,286,683	2,483,697
Selling, general and administrative expenses	815,065	872,777	648,736
Depreciation and amortization expense	91,800	92,272	83,395
Loss on sale of business	25,922	—	—
Income from operations	501,239	572,966	542,316
Interest and other income/(loss), net	51,124	10,025	(1,727)
Foreign exchange loss	(15,778)	(75,733)	(7,197)
Income before provision for income taxes	536,585	507,258	533,392
Provision for income taxes	119,502	87,842	51,740
Net income	\$ 417,083	\$ 419,416	\$ 481,652
Net income per share:			
Basic	\$ 7.21	\$ 7.32	\$ 8.52
Diluted	\$ 7.06	\$ 7.09	\$ 8.15
Shares used in calculation of net income per share:			
Basic	57,829	57,291	56,511
Diluted	59,085	59,169	59,064

The accompanying notes are an integral part of the consolidated financial statements.

EPAM SYSTEMS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(In thousands)

	For the Years Ended December 31,		
	2023	2022	2021
Net income	\$ 417,083	\$ 419,416	\$ 481,652
Other comprehensive income/(loss):			
Change in foreign currency translation adjustments, net of tax	58,179	(49,033)	(24,579)
Change in unrealized (loss)/gain on hedging instruments, net of tax	(487)	11,723	(7,059)
Defined benefit pension plans - actuarial (loss)/gain, net of tax	(1,411)	(3,804)	2,943
Other comprehensive income/(loss)	56,281	(41,114)	(28,695)
Comprehensive income	\$ 473,364	\$ 378,302	\$ 452,957

The accompanying notes are an integral part of the consolidated financial statements.

EPAM SYSTEMS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY
(In thousands)

	Common Stock		Additional Paid-in Capital	Retained Earnings	Treasury Stock		Accumulated Other Comprehensive (Loss)/Income	Non-controlling interest	Total Equity
	Shares	Amount			Shares	Amount			
Balance, January 1, 2021	56,108	\$ 56	\$ 660,771	\$ 1,347,880	20	\$ (177)	\$ (25,512)	\$ —	\$ 1,983,018
Restricted stock units vested	311	—	—	—	—	—	—	—	—
Equity withheld for employee taxes	(106)	—	(45,070)	—	—	—	—	—	(45,070)
Stock-based compensation expense	—	—	69,899	—	—	—	—	—	69,899
Exercise of stock options	536	1	26,312	—	—	—	—	—	26,313
Noncontrolling interests acquired in business combination	—	—	—	—	—	—	—	10,469	10,469
Purchase of subsidiary shares from noncontrolling interest	—	—	—	—	—	—	—	(1,749)	(1,749)
Other comprehensive loss	—	—	—	—	—	—	(28,695)	—	(28,695)
Net income	—	—	—	481,652	—	—	—	—	481,652
Balance, December 31, 2021	56,849	\$ 57	\$ 711,912	\$ 1,829,532	20	(177)	(54,207)	8,720	2,495,837
Restricted stock units vested	252	—	—	—	—	—	—	—	—
Equity withheld for employee taxes	(83)	—	(23,650)	—	—	—	—	—	(23,650)
Stock issued in connection with Other 2021 acquisitions (Note 3)	6	—	1,941	—	(6)	59	—	—	2,000
Stock-based compensation expense	—	—	107,513	—	—	—	—	—	107,513
Exercise of stock options	511	1	21,850	—	—	—	—	—	21,851
Issuance of common stock from employee stock purchase plan	120	—	28,350	—	—	—	—	—	28,350
Purchase of subsidiary shares from noncontrolling interest	—	—	49	—	—	—	—	(7,315)	(7,266)
Contributions from noncontrolling interest	—	—	—	—	—	—	—	73	73
Other comprehensive loss	—	—	—	—	—	—	(41,114)	—	(41,114)
Net income	—	—	—	419,416	—	—	—	—	419,416
Balance, December 31, 2022	57,655	\$ 58	\$ 847,965	\$ 2,248,948	14	(118)	(95,321)	1,478	\$ 3,003,010
Restricted stock units vested	336	—	—	—	—	—	—	—	—
Equity withheld for employee taxes	(103)	—	(29,301)	—	—	—	—	—	(29,301)
Stock issued in connection with Other 2021 acquisitions (Note 3)	14	—	2,882	—	(14)	118	—	—	3,000
Stock-based compensation expense	—	—	135,500	—	—	—	—	—	135,500
Exercise of stock options	398	—	15,513	—	—	—	—	—	15,513
Issuance of common stock from employee stock purchase plan	173	—	36,255	—	—	—	—	—	36,255
Repurchase of common stock	(686)	—	—	(164,924)	—	—	—	—	(164,924)
Purchase of subsidiary shares from noncontrolling interest	—	—	(48)	—	—	—	—	(1,405)	(1,453)
Contributions to consolidated subsidiary from noncontrolling interest	—	—	—	—	—	—	—	506	506
Other comprehensive income	—	—	—	—	—	—	56,281	—	56,281
Net income	—	—	—	417,083	—	—	—	—	417,083
Balance, December 31, 2023	57,787	\$ 58	\$ 1,008,766	\$ 2,501,107	—	\$ —	\$ (39,040)	\$ 579	\$ 3,471,470

The accompanying notes are an integral part of the consolidated financial statements.

EPAM SYSTEMS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	For the Years Ended December 31,		
	2023	2022	2021
Cash flows from operating activities:			
Net income	\$ 417,083	\$ 419,416	\$ 481,652
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization expense	91,800	92,272	83,401
Operating lease right-of-use assets amortization expense	40,902	47,777	61,750
Bad debt expense	4,047	12,394	2,488
Deferred taxes	(37,194)	(42,164)	(46,900)
Stock-based compensation expense	147,730	99,909	111,655
Unrealized (gain)/ loss on derivative instruments	(7,904)	7,904	—
Impairment charges	6,019	23,619	144
Loss on sale of business	25,922	—	—
Other	(599)	32,806	12,993
Changes in assets and liabilities:			
Trade receivables and contract assets	32,356	(192,712)	(211,684)
Prepaid and other assets	8,409	(12,140)	(16,182)
Accounts payable	154	(2,934)	(2,403)
Accrued expenses and other liabilities	(84,610)	26,025	155,657
Operating lease liabilities	(48,093)	(51,668)	(63,812)
Income taxes payable	(33,388)	3,600	3,568
Net cash provided by operating activities	562,634	464,104	572,327
Cash flows from investing activities:			
Purchases of property and equipment	(28,415)	(81,629)	(111,501)
Purchases of short-term investments	(11,169)	(60,000)	—
Proceeds from short-term investments	10,865	—	60,000
Acquisition of businesses, net of cash acquired (Note 3)	(24,817)	(10,644)	(314,958)
Cash sold as part of sale of business, net of proceeds	(2,169)	—	—
Purchases of non-marketable securities	(3,296)	(1,625)	(2,544)
Other investing activities, net	(7,767)	(29,029)	79
Net cash used in investing activities	(66,768)	(182,927)	(368,924)
Cash flows from financing activities:			
Proceeds from issuance of stock under the employee incentive programs	51,636	50,660	26,286
Payments of withholding taxes related to net share settlements of restricted stock units	(29,102)	(26,556)	(41,598)
Proceeds from debt	825	1,763	31,109
Repayment of debt	(2,969)	(15,542)	(31,054)
Repurchase of common stock	(164,924)	—	—
Payment of contingent consideration for previously acquired businesses	(10,235)	(6,626)	(40,227)
Purchase of subsidiary shares from noncontrolling interest	(1,972)	(2,254)	(1,749)
Payment of deferred consideration for asset acquisitions	(4,979)	—	—
Other financing activities, net	(4,053)	(3,466)	(2,324)
Net cash used in financing activities	(165,773)	(2,021)	(59,557)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	29,379	(44,867)	(18,032)
Net increase in cash, cash equivalents and restricted cash	359,472	234,289	125,814
Cash, cash equivalents and restricted cash, beginning of period	1,683,636	1,449,347	1,323,533
Cash, cash equivalents and restricted cash, end of period	\$ 2,043,108	\$ 1,683,636	\$ 1,449,347

EPAM SYSTEMS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)
(Continued)

	For the Years Ended December 31,		
	2023	2022	2021
Supplemental disclosure of cash flow information:			
Cash paid during the year for:			
Income taxes, net of refunds	\$ 177,426	\$ 113,188	\$ 87,317
Interest	\$ 4,698	\$ 1,659	\$ 413
Supplemental disclosure of non-cash investing and financing activities:			
Acquisition-date fair value of contingent consideration issued for acquisition of businesses	\$ 14,850	\$ 2,645	\$ 57,249
Capital expenditures incurred but not yet paid	\$ 23,986	\$ 57,114	\$ 7,738

The following table provides a reconciliation of cash, cash equivalents and restricted cash reported within the consolidated balance sheets:

	As of December 31, 2023	As of December 31, 2022	As of December 31, 2021
Balance sheet classification			
Cash and cash equivalents	\$ 2,036,235	\$ 1,681,344	\$ 1,446,625
Restricted cash in Prepaid and other current assets	5,294	430	495
Restricted cash in Other noncurrent assets	1,579	1,862	2,227
Total restricted cash	6,873	2,292	2,722
Total cash, cash equivalents and restricted cash	\$ 2,043,108	\$ 1,683,636	\$ 1,449,347

The accompanying notes are an integral part of the consolidated financial statements.

EPAM SYSTEMS, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(In thousands, except per share data and as otherwise disclosed)

1. ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

EPAM Systems, Inc. (the “Company” or “EPAM”) is a leading digital transformation services and product engineering company, providing digital platform engineering and software development services to customers across six continents. In a business landscape that is constantly challenged by the pressures of digitization, EPAM focuses on building long-term partnerships with customers in various industries through innovative and scalable software solutions, integrated strategy, experience and technology consulting, and a continually evolving mix of advanced capabilities. The Company is incorporated in Delaware with headquarters in Newtown, Pennsylvania.

Principles of Consolidation — The consolidated financial statements include the financial statements of EPAM and its subsidiaries. All intercompany balances and transactions have been eliminated.

Use of Estimates — The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions. These estimates and assumptions affect reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements, as well as revenues and expenses during the reporting period. The Company bases its estimates and judgments on historical experience, knowledge of current conditions and its beliefs of what could occur in the future, given available information. Actual results could differ from those estimates, and such differences may be material to the financial statements.

Cash and Cash Equivalents — Cash equivalents are short-term, highly liquid investments and deposits that are readily convertible into cash, with maturities of three months or less at the date acquired. Highly liquid investments with maturities greater than three months at the date acquired are reported separately from cash equivalents.

Trade Receivables and Contract Assets — The Company classifies its right to consideration in exchange for deliverables as either a trade receivable or a contract asset. A trade receivable is a right to consideration that is unconditional (i.e., only the passage of time is required before payment is due) regardless of whether the amounts have been billed. Trade receivables are stated net of allowance for doubtful accounts. Outstanding trade receivables are reviewed periodically and allowances are provided for the estimated amount of receivables that may not be collected. The allowance for doubtful accounts is determined based on historical experience and management’s evaluation of trade receivables. A contract asset is a right to consideration that is conditional upon factors other than the passage of time. Contract assets primarily relate to unbilled amounts on fixed-price contracts. Contract assets are recorded when services have been provided but the Company does not have an unconditional right to receive consideration. The Company recognizes an impairment loss when the contract carrying amount is greater than the remaining consideration receivable, less directly related costs to be incurred.

Property and Equipment — Property and equipment acquired in the ordinary course of the Company’s operations are stated at cost, net of accumulated depreciation. Depreciation is calculated on a straight-line basis over the estimated useful lives of the assets generally ranging from two to fifty years. Leasehold improvements are amortized on a straight-line basis over the shorter of the term of the lease or the estimated useful life of the improvement. Maintenance and repairs are expensed as incurred.

Business Combinations — The Company accounts for business combinations using the acquisition method which requires it to estimate the fair value of identifiable assets acquired and liabilities assumed, including any contingent consideration, to properly allocate the purchase price to the individual assets acquired and liabilities assumed in accordance with the Financial Accounting Standards Board (“FASB”) Accounting Standards Codification (“ASC”) Topic 805, *Business Combinations*. A substantial portion of the purchase price is typically allocated to goodwill and other intangible assets, which usually include customer relationships, software, trade names, and assembled workforce. The allocation of the purchase price utilizes significant estimates in determining the fair values of identifiable assets acquired and liabilities assumed, especially with respect to intangible assets. The significant estimates and assumptions used include the timing and amount of forecasted revenues and cash flows, anticipated growth rates, customer attrition rates, the discount rate reflecting the risk inherent in future cash flows and the useful lives for finite-lived assets. There are different valuation models for each component, the selection of which requires considerable judgment. These determinations will affect the amount of amortization expense recognized in future periods. The Company bases its fair value estimates on assumptions it believes are reasonable but recognizes that the assumptions are inherently uncertain.

If the initial accounting for the business combination has not been completed by the end of the reporting period in which the business combination occurs, provisional amounts are reported to present information about facts and circumstances that existed as of the acquisition date. Once the measurement period ends, which in no case extends beyond one year from the acquisition date, revisions to the accounting for the business combination are recorded in earnings.

In some business combinations, the Company agrees to contingent consideration arrangements and the Company determines the fair value of contingent consideration using Monte Carlo simulations (which involve a simulation of future revenues and earnings during the earn-out period using management's best estimates) or probability-weighted expected return methods. Changes in financial projections, market risk assumptions, discount rates or probability assumptions related to achieving the various earn-out criteria would result in a change in the fair value of contingent consideration. Such changes in the fair value of contingent consideration arrangements that are not measurement period adjustments are recorded within Interest and other income/(loss), net in the Company's consolidated statements of income.

All acquisition-related costs, other than the costs to issue debt or equity securities, are accounted for as expenses in the period in which they are incurred.

Long-Lived Assets — Long-lived assets, such as property and equipment and finite-lived intangible assets, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. When the carrying value of an asset is more than the sum of the undiscounted expected future cash flows, an impairment is recognized. An impairment loss is measured as the excess of the asset's carrying amount over its fair value. Intangible assets that have finite useful lives are amortized over their estimated useful lives on a straight-line basis.

Goodwill and Other Indefinite-Lived Intangible Assets — Goodwill and other intangible assets that have indefinite useful lives are accounted for in accordance with FASB ASC 350, *Intangibles — Goodwill and Other*. The Company conducts its evaluation of goodwill impairment at the reporting unit level on an annual basis as of October 31st, and more frequently if events or circumstances indicate that the carrying value of a reporting unit exceeds its fair value. A reporting unit is an operating segment or one level below. The Company does not have intangible assets other than goodwill that have indefinite useful lives.

Derivative Financial Instruments — The Company enters into derivative financial instruments to manage exposure to fluctuations in certain foreign currencies. The Company measures these foreign currency derivative contracts at fair value on a recurring basis utilizing Level 2 inputs and recognizes them as either assets or liabilities in its consolidated balance sheets. The Company records changes in the fair value of these hedges in accumulated other comprehensive loss until the forecasted transaction occurs. When the forecasted transaction occurs, the Company reclassifies the related gain or loss on the cash flow hedge to cost of revenues (exclusive of depreciation and amortization). In the event the underlying forecasted transaction does not occur, or it becomes probable that it will not occur, the Company reclassifies the gain or loss on the underlying hedge into income. If the Company does not elect hedge accounting, or the contract does not qualify for hedge accounting treatment, the changes in fair value from period to period are recorded in income. The cash flow impact of derivatives identified as hedging instruments is reflected as cash flows from operating activities. The cash flow impact of derivatives not identified as hedging instruments is reflected as cash flows from investing activities.

Fair Value of Financial Instruments — The Company makes assumptions about fair values of its financial assets and liabilities in accordance with FASB ASC Topic 820, *Fair Value Measurement*, and utilizes the following fair value hierarchy in determining inputs used for valuation:

Level 1 — Quoted prices for identical assets or liabilities in active markets.

Level 2 — Inputs other than quoted prices within Level 1 that are observable either directly or indirectly, including quoted prices in markets that are not active, quoted prices in active markets for similar assets or liabilities, and observable inputs other than quoted prices such as interest rates or yield curves.

Level 3 — Unobservable inputs reflecting management's view about the assumptions that market participants would use in pricing the asset or liability.

Where the fair values of financial assets and liabilities recorded in the consolidated balance sheets cannot be derived from an active market, they are determined using a variety of valuation techniques. These valuation techniques include a net present value technique, comparison to similar instruments with market observable inputs, option pricing models and other relevant valuation models. To the extent possible, observable market data is used as inputs into these models but when it is not feasible, a degree of judgment is required to establish fair values.

Changes in the fair value of liabilities could cause a material impact to, and volatility in the Company's operating results. See Note 5 "Fair Value Measurements."

Leases — The Company determines if an arrangement is a lease or contains a lease at inception. The Company performs an assessment and classifies the lease as either an operating lease or a financing lease at the lease commencement date with a right-of-use asset and a lease liability recognized in the consolidated balance sheet under both classifications. The Company does not have finance leases that are material to the Company's consolidated financial statements.

Lease liabilities are initially measured at the present value of lease payments not yet paid. The present value is determined by applying the readily determinable rate implicit in the lease or, if not available, the incremental borrowing rate of the lessee. The Company determines the incremental borrowing rate of the lessee on a lease-by-lease basis by developing an estimated centralized U.S. dollar borrowing rate for a fully collateralized obligation with a term similar to the lease term and adjusts the rate to reflect the incremental risk associated with the foreign currency in which the lease is denominated. The development of this estimate includes the use of recovery rates, U.S. risk-free rates, foreign currency/country base rate yields, and a synthetic corporate credit rating of the Company developed using regression analysis. Lease agreements of the Company may include options to extend or terminate the lease and the Company includes such options in the lease term when it is reasonably certain that the Company will exercise that option. Right-of-use assets are recognized based on the initial measurement of the lease liabilities plus initial direct costs less lease incentives and, according to the guidance for long-lived assets, right-of-use assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Lease expense for operating leases is recognized on a straight-line basis over the lease term.

The Company elected a practical expedient to account for lease and non-lease components together as a single lease component. The Company also elected the short-term lease recognition exemption for all classes of lease assets with an original term of twelve months or less.

Accumulated Other Comprehensive Loss — Accumulated other comprehensive loss consists of changes in the cumulative foreign currency translation adjustments and actuarial gains and losses on defined benefit pension plans. In addition, the Company enters into foreign currency exchange contracts, which are designated as cash flow hedges in accordance with FASB ASC Topic 815, *Derivatives and Hedging*. Changes in the fair values of these foreign currency exchange contracts are recognized in Accumulated other comprehensive loss on the Company's consolidated balance sheets until the settlement of those contracts.

Revenue Recognition — The Company recognizes revenue in accordance with ASC 606 which requires entities to recognize revenue to depict the transfer of promised goods or services in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services as well as requires additional disclosure about the nature, amount, timing and uncertainty of revenues and cash flows arising from customer contracts, including significant judgments and changes in judgments.

The Company recognizes revenues when control of goods or services is passed to a customer in an amount that reflects the consideration the Company expects to be entitled to in exchange for those goods or services. Such control may be transferred over time or at a point in time depending on satisfaction of obligations stipulated by the contract. Consideration expected to be received may consist of both fixed and variable components and is allocated to each separately identifiable performance obligation based on the performance obligation's relative standalone selling price. Variable consideration usually takes the form of volume-based discounts, service level credits, price concessions or incentives. Determining the estimated amount of such variable consideration involves assumptions and judgment that can have an impact on the amount of revenues reported.

The Company derives revenues from a variety of service arrangements, which have been evolving to provide more customized and integrated solutions to customers by combining software engineering with customer experience design, business consulting and technology innovation services. Fees for these contracts may be in the form of time-and-materials or fixed-price arrangements. The Company generates the majority of its revenues under time-and-material contracts, which are billed using hourly, daily or monthly rates to determine the amounts to be charged directly to the customer. The Company applies a practical expedient and revenues related to time-and-material contracts are recognized based on the right to invoice for services performed.

Fixed-price contracts include maintenance and support arrangements which may exceed one year in duration. Maintenance and support arrangements generally relate to the provision of ongoing services and revenues for such contracts are recognized ratably over the expected service period. Fixed-price contracts also include application development arrangements, where progress towards satisfaction of the performance obligation is measured using input or output methods and input methods are used only when there is a direct correlation between hours incurred and the end product delivered. Assumptions, risks and uncertainties inherent in the estimates used to measure progress could affect the amount of revenues, receivables and deferred revenues at each reporting period.

Revenues from licenses which have significant stand-alone functionality are recognized at a point in time when control of the license is transferred to the customer. Revenues from licenses which do not have stand-alone functionality are recognized over time.

If there is an uncertainty about the receipt of payment for the services, revenue recognition is deferred until the uncertainty is sufficiently resolved. The Company applies a practical expedient and does not assess the existence of a significant financing component if the period between transfer of the service to a customer and when the customer pays for that service is one year or less.

The Company reports gross reimbursable “out-of-pocket” expenses incurred as both revenues and cost of revenues in the consolidated statements of income and comprehensive income.

Revenues are sourced from four geographic markets: Americas, EMEA, APAC, and CEE. Americas includes revenues from customers in North, Central and South America; EMEA includes revenues from customers in Western Europe and the Middle East; APAC includes revenues from customers in East Asia, Southeast Asia and Australia; and CEE includes revenues from customers in Eastern Europe and Central Asia.

Cost of Revenues (Exclusive of Depreciation and Amortization) — Consists principally of salaries, bonuses, fringe benefits, stock-based compensation, project related travel costs and fees for subcontractors that are assigned to customer projects. Salaries and other compensation expenses of the Company’s delivery professionals are reported as cost of revenues regardless of whether the employees are actually performing customer services during a given period.

Selling, General and Administrative Expenses — Consists of expenses associated with promoting and selling the Company’s services and general and administrative functions of the business. These expenses include the costs of salaries, bonuses, fringe benefits, stock-based compensation, severance, bad debt, travel, legal and accounting services, insurance, facilities including operating leases, advertising and other promotional activities, and certain non-income taxes.

Stock-Based Compensation — The Company recognizes the cost of its equity settled stock-based incentive awards based on the fair value of the award at the date of grant, net of estimated forfeitures. The fair value of these awards at the date of grant is generally based on the grant-date price of the company's shares. The grant date fair value for stock options and stock purchase rights under the Employee Stock Purchase Plan (“ESPP”) is estimated using the Black-Scholes option-pricing valuation model. The cost is generally expensed evenly over the service period, unless otherwise specified by the award agreement. The service period is the period over which the employee performs the related services, which is normally the same as the vesting period. Equity-based awards that do not require future service are expensed immediately. For awards with performance conditions, the amount of compensation cost we recognize over the requisite service period is based on the actual or expected achievement of the performance condition. Quarterly, the forfeiture assumption is adjusted to reflect actual forfeitures and such adjustment may affect the timing of recognition of the total amount of expense recognized over the vesting period. Stock-based awards that do not meet the criteria for equity classification are recorded as liabilities and adjusted to fair value at the end of each reporting period.

Income Taxes — The provision for income taxes includes federal, state, local and foreign taxes. Deferred tax assets and liabilities are recognized for the estimated future tax consequences of temporary differences between the financial statement carrying amounts and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the year in which the temporary differences are expected to be reversed. Changes to enacted tax rates would result in either increases or decreases in the provision for income taxes in the period of changes.

The realizability of deferred tax assets is primarily dependent on future earnings. The Company evaluates the realizability of deferred tax assets and recognizes a valuation allowance when it is more likely than not that all, or a portion of, deferred tax assets will not be realized. A reduction in estimated forecasted results may require that we record valuation allowances against deferred tax assets. Once a valuation allowance has been established, it will be maintained until there is sufficient positive evidence to conclude that it is more likely than not that the deferred tax assets will be realized. A pattern of sustained profitability will generally be considered as sufficient positive evidence to reverse a valuation allowance. If the allowance is reversed in a future period, the income tax provision will be correspondingly reduced. Accordingly, the increase and decrease of valuation allowances could have a significant negative or positive impact on future earnings.

The United States subjects corporations to taxes on Global Intangible Low-Taxed Income (“GILTI”) earned by certain foreign subsidiaries. The Company elected to provide for the tax expense related to GILTI in the year the tax is incurred.

Earnings per Share (“EPS”) — Basic EPS is computed by dividing income available to common shareholders by the weighted average number of shares of common stock outstanding during the period. Diluted earnings per share is computed by dividing income available to common shareholders by the weighted average number of shares of common stock outstanding during the period, increased by the number of additional shares of common stock that would have been outstanding if the potentially dilutive securities had been issued. Potentially dilutive securities include outstanding stock options, unvested restricted stock, unvested restricted stock units (“RSUs”) and the stock to be issued under the ESPP. The dilutive effect of potentially dilutive securities is reflected in diluted earnings per share by application of the treasury stock method.

Foreign Currency Translation and Remeasurement — Assets and liabilities of consolidated foreign subsidiaries whose functional currency is not the U.S. dollar are translated into U.S. dollars at period-end exchange rates and revenues and expenses are translated into U.S. dollars at daily exchange rates. The adjustment resulting from translating the financial statements of such foreign subsidiaries into U.S. dollars is reflected as a cumulative translation adjustment and reported as a component of Accumulated other comprehensive loss.

For consolidated foreign subsidiaries whose functional currency is not the local currency, transactions and balances denominated in the local currency are foreign currency transactions. Foreign currency transactions and balances related to non-monetary assets and liabilities are remeasured to the functional currency of the subsidiary at historical exchange rates while monetary assets and liabilities are remeasured to the functional currency of the subsidiary at period-end exchange rates. Foreign currency exchange gains or losses from remeasurement are included in income in the period in which they occur.

Risks and Uncertainties — As a result of its global operations, the Company may be subject to certain inherent risks.

Concentration of Credit — Financial instruments that potentially subject the Company to concentration of credit risk consist primarily of cash, cash equivalents, short-term investments and trade receivables. The Company maintains cash, cash equivalents and short-term investments with financial institutions. The Company believes its credit policies reflect normal industry terms and business risk and there is no expectation of non-performance by the counterparties.

The Company has cash in several countries, including Ukraine and Belarus, where the banking sector remains subject to periodic instability; banking and other financial systems generally do not meet the banking standards of more developed markets; and bank deposits made by corporate entities are not insured. As of December 31, 2023, the Company had \$45.8 million of cash and cash equivalents in banks in Ukraine and \$38.3 million of cash and cash equivalents in banks in Belarus. Cash in Ukraine and Belarus is used for the operational needs of the local entities and cash balances change with the expected operating needs of these entities. The Company regularly monitors cash held in these countries and, to the extent the cash held exceeds amounts required to support its operations in these countries, the Company distributes the excess funds into markets with more developed banking sectors to the extent it is possible to do so. The Company places its cash and cash equivalents with financial institutions considered stable in the region, limits the amount of credit exposure with any one financial institution and conducts ongoing evaluations of the credit worthiness of the financial institutions with which it does business. However, a banking crisis, bankruptcy or insolvency of banks that process or hold the Company’s funds, or sanctions may result in the loss of deposits or adversely affect the Company’s ability to complete banking transactions, which could adversely affect the Company’s business and financial condition.

Trade receivables are generally dispersed across many customers operating in different industries; therefore, concentration of credit risk is limited. Historically, credit losses and write-offs of trade receivables have not been material to the consolidated financial statements. If any of the Company’s customers enter bankruptcy protection or otherwise take steps to alleviate their financial distress, the Company’s credit losses and write-offs of trade receivables could increase, which would negatively impact its results of operations.

Foreign currency risk — The Company’s global operations are conducted predominantly in U.S. dollars. Other than U.S. dollars, the Company generates revenues in various currencies, principally, euros, British pounds, Swiss francs and Canadian dollars and incurs expenditures principally in euros, Polish zlotys, Indian rupees, British pounds, Swiss francs, Hungarian forints, Mexican pesos, Colombian pesos, Canadian dollars and Chinese yuan renminbi. The Company’s international operations expose it to risk of adverse fluctuations in foreign currency exchange rates through the remeasurement of foreign currency denominated assets and liabilities (both third-party and intercompany) and translation of earnings and cash flows into U.S. dollars. The Company has a hedging program whereby it enters into a series of foreign exchange forward contracts with durations of twelve months or less that are designated as cash flow hedges of forecasted Polish zloty, Indian rupee and Hungarian forint transactions. See Note 6 “Derivative Financial Instruments” for further information on the Company’s hedging program.

Interest rate risk — The Company is exposed to market risk from changes in interest rates. Exposure to interest rate risk results primarily from variable rates related to cash and cash equivalent deposits, short-term investments, and the Company’s borrowings, mainly under the 2021 Credit Agreement, which is subject to a variety of rates depending on the type and timing of funds borrowed (See Note 10 “Debt”). The Company does not believe it is exposed to material direct risks associated with changes in interest rates related to these deposits, investments and borrowings.

Adoption of New Accounting Standards

There were no recently adopted accounting standards which had a material impact on the Company’s consolidated financial statements.

Pending Accounting Standards

From time to time, new accounting pronouncements are issued by the FASB or other standards-setting bodies that the Company will adopt according to the various timetables the FASB specifies. Unless otherwise discussed below, the Company believes the impact of recently issued standards that are not yet effective will not have a material impact on its consolidated financial statements upon adoption.

Segment Reporting - Improvements to Reportable Segment Disclosures — In November 2023, the FASB issued Accounting Standard Update (“ASU”) No. 2023-07, *Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures*. The update is intended to improve reportable segment disclosure requirements, primarily through enhanced disclosures about significant segment expenses. The update is effective for fiscal years beginning after December 15, 2023, and interim periods within fiscal years beginning after December 15, 2024, with early adoption permitted and requires retrospective application to all prior periods presented in the financial statements. The Company is currently assessing the impact that adopting this ASU will have on its consolidated financial statements and expects to adopt this ASU in the fourth quarter of 2024.

Income Taxes - Improvements to Income Tax Disclosures — In December 2023, the FASB issued ASU No. 2023-09, *Income Taxes (Topic 740): Improvements to Income Tax Disclosures*, which requires disclosure of disaggregated income taxes paid, prescribes standard categories for the components of the effective tax rate reconciliation, and modifies other income tax-related disclosures. The new guidance is effective for annual periods beginning after December 15, 2024, with early adoption permitted and may be applied prospectively or retrospectively. The Company is currently assessing the timing and impact of adopting this ASU.

2. IMPACT OF THE INVASION OF UKRAINE

On February 24, 2022, Russian forces attacked Ukraine and its people and EPAM has repeatedly called for an immediate end to this unlawful and unconscionable attack. As of December 31, 2023, the Company had \$62.7 million of Property and equipment, net in Ukraine consisting of a building classified as construction-in-progress located in Kyiv with a net book value of \$51.5 million, laptops with a net book value of \$5.9 million, most of which are in the possession of employees, various office furniture, equipment and supplies with a net book value of \$4.2 million, and leasehold improvements located throughout Ukraine with a net book value of \$1.1 million. Additionally, as of December 31, 2023, the Company had Operating lease right-of-use assets located throughout Ukraine with a net book value of \$6.6 million. Through the issuance date of these financial statements, the Company is not aware of any damage to its long-lived assets in Ukraine and the Company expects to continue to use these assets as part of its global delivery model.

On March 4, 2022, the Company announced a \$100 million humanitarian commitment to support its employees and their families in and displaced from Ukraine. This humanitarian commitment is in addition to donations from EPAM’s customers and employees and the work of EPAM volunteers on the ground.

During the years ended December 31, 2023 and 2022, the Company expensed \$17.4 million and \$44.8 million, respectively, related to this commitment which included special cash payments to support impacted employees, financial and medical support for impacted families, travel, meals and lodging expenses, and donations to third-party humanitarian organizations. Of the expensed amount for the year ended December 31, 2023 and 2022, \$11.3 million and \$29.0 million, respectively, is classified in Cost of revenues (exclusive of depreciation and amortization) and \$6.1 million and \$15.8 million, respectively, is classified in Selling, general and administrative expense on the consolidated financial statements. As of December 31, 2023, the Company has \$37.8 million remaining to be expensed related to this humanitarian commitment.

The Company executed its business continuity plans following the invasion to assist relocating employees residing in Ukraine and the surrounding region impacted by the war and geopolitical uncertainty to other countries and to assign delivery personnel in locations outside of the region to serve in unbilled standby or backup capacities to ensure the continuity of delivery for its customers who have substantial delivery exposure to Ukraine or other delivery concerns resulting from the invasion and ongoing war. In addition to costs incurred as part of EPAM's humanitarian commitment to Ukraine, during the year ended December 31, 2023 and 2022, the Company incurred expenses of \$1.8 million and \$38.7 million, respectively, related to its geographic repositioning efforts, classified as Selling, general and administrative expenses and \$9.4 million and \$14.7 million, respectively, related to the standby resources, classified as Cost of revenues (exclusive of depreciation and amortization). During the year ended December 31, 2022, the Company also recorded an impairment charge of \$1.3 million, classified as Interest and other income/(loss), net related to a financial asset in Ukraine which the Company believed to be unrealizable due to the events in Ukraine.

In response to the attacks on Ukraine, EPAM announced on March 4, 2022, it would discontinue services to customers located in Russia. Based on this change in facts and circumstances, the long-term cash flow forecast for the Company's operations in Russia and its Russia reporting unit were significantly reduced. The reduction in the long-term cash flow forecasts indicated that the carrying amounts of goodwill and long-lived assets associated with the Company's Russia reporting unit and operations in Russia may not be recoverable, and the carrying value of these assets was tested for impairment. The Company relied on the income approach to estimate the fair values of the Russia reporting unit and long-lived assets and considered multiple scenarios including the continuing operation and exit of operations in Russia. Reflecting the negative long-term cash flow forecasts that each of these scenarios produced for these assets, during the three months ended March 31, 2022, the Company recorded impairments of Property and equipment, net of \$15.1 million, Operating lease right-of-use assets, net of \$3.8 million, and Goodwill of \$0.7 million. These asset impairment charges are included in Selling, general and administrative expenses in the consolidated financial statements for the year ended December 31, 2022.

Additionally, the Company evaluated trade receivables and contract assets for estimated future credit losses from customers located in Russia and recorded bad debt expense of \$5.1 million reflecting the deterioration of creditworthiness of its customers in Russia during the year ended December 31, 2022. Bad debt expense is included in Selling, general and administrative expenses in the consolidated statements of income. Amounts recorded to bad debt expense during the year ended December 31, 2023 related to customers located in Russia were not material.

Also, during the year ended December 31, 2022, the Company incurred employee separation costs of \$17.1 million in connection with the decision to exit its operations in Russia, with no such costs incurred during the year ended December 31, 2023.

On July 26, 2023, the Company completed the sale of its remaining holdings in Russia to a third-party. The Company recorded a loss on sale of \$25.9 million during the year ended December 31, 2023, including the recognition of the accumulated currency translation loss related to this foreign entity that was previously included in Accumulated other comprehensive loss in the consolidated financial statements.

3. ACQUISITIONS

PolSource — On April 2, 2021, the Company acquired 100% of PolSource S.A. and its subsidiaries ("PolSource"), a Salesforce Platinum Consulting Partner with more than 350 experienced Salesforce specialists for a purchase price of \$148.2 million including contingent consideration with an acquisition-date fair value of \$35.4 million. At the time of the acquisition, the Company committed to paying up to \$45.0 million in contingent consideration, subject to attainment of certain revenue, earnings and operational targets.

CORE — On July 23, 2021, the Company acquired 100% of CORE SE and its subsidiaries ("CORE"), a professional service provider specializing in IT strategy and technology-driven transformations with office locations in Europe and the Middle East for a purchase price of \$50.2 million including contingent consideration with an acquisition-date fair value of \$4.0 million and deferred consideration of \$7.8 million. The Company could pay up to \$8.1 million in contingent consideration and the actual future payout is subject to attainment of certain revenue, earnings and operational targets.

Emakina — On November 3, 2021, the Company completed the acquisition of 98.69% of Emakina Group SA and its subsidiaries (“Emakina”), a group of independent digital agencies, for a purchase price of \$143.4 million in cash. On November 30, 2021, the Company completed the acquisition of the remaining 1.31% of Emakina Group SA’s outstanding shares for a purchase price of \$1.7 million in cash.

The following table summarizes the estimated fair values of the assets acquired and liabilities assumed as of the date of each respective acquisition and updated for any changes as of December 31, 2022:

	PolSource	CORE	Emakina
Cash and cash equivalents	\$ 2,565	\$ 11,283	\$ 5,142
Trade receivables and contract assets	12,734	10,266	34,389
Prepaid and other current assets	814	5,430	3,109
Goodwill	125,265	24,194	139,417
Intangible assets	15,790	8,368	30,488
Property and equipment and other noncurrent assets	461	4,585	16,802
Total assets acquired	\$ 157,629	\$ 64,126	\$ 229,347
Accounts payable, accrued expenses and other current liabilities	\$ 5,337	\$ 9,336	\$ 37,469
Short-term debt	—	—	13,657
Long-term debt	—	—	8,874
Operating lease liabilities, noncurrent	157	2,056	5,541
Other noncurrent liabilities	3,963	2,525	9,319
Total liabilities assumed	\$ 9,457	\$ 13,917	\$ 74,860
Noncontrolling interest in consolidated subsidiaries	—	—	10,469
Net assets acquired	\$ 148,172	\$ 50,209	\$ 144,018

During the year ended December 31, 2022, the Company completed the purchase price allocation for the acquisitions of PolSource, CORE, and Emakina and the estimated fair values of the assets acquired and liabilities assumed have been finalized. The effect of adjustments recorded during the year ended December 31, 2022, that would have been recognized in a prior period if the adjustment to the preliminary amounts had been recognized as of the acquisition date of each respective acquisition was not material.

The following table presents the estimated fair values and useful lives of intangible assets acquired from PolSource, CORE and Emakina as of the date of each respective acquisition and updated for any changes as of December 31, 2022:

	PolSource		CORE		Emakina	
	Weighted Average Useful Life (in years)	Amount	Weighted Average Useful Life (in years)	Amount	Weighted Average Useful Life (in years)	Amount
Customer relationships	6	\$ 14,790	6	\$ 7,779	7	\$ 27,822
Trade names	3	1,000	5	589	3	2,666
Total		\$ 15,790		\$ 8,368		\$ 30,488

The goodwill recognized as a result of the PolSource acquisition is attributable to synergies expected to be achieved by combining the businesses of EPAM and PolSource, expected future contracts, the assembled workforce acquired and other factors. The goodwill recognized as a result of the CORE acquisition is attributable to synergies expected to be achieved by expanding the Company’s ability to support customers as a strategic consultant in Europe and the Middle East, expected future contracts, the assembled workforce acquired and other factors. The goodwill recognized as a result of the Emakina acquisition is attributable to synergies expected to be achieved by enhancing EPAM’s digital experience practice as well as augmenting offerings in digital design and engineering capabilities, expected future contracts, the assembled workforce and other factors.

The goodwill acquired as a result of the PolSource, CORE and Emakina acquisitions is not expected to be deductible for income tax purposes.

During the year ended December 31, 2021, the Company recognized acquisition-related costs associated with the PolSource, CORE and Emakina acquisitions totaling \$1.4 million, \$1.2 million and \$1.0 million, respectively. Acquisition-related costs incurred during the years ended December 31, 2023 and 2022 were not material. These costs are included in Selling, general and administrative expenses in the accompanying consolidated statements of income.

Revenues generated by PolSource, CORE and Emakina included in the Company's consolidated statement of income totaled \$55.0 million, \$14.1 million and \$24.7 million during the year ended December 31, 2021, respectively. Pro forma results of operations have not been presented because the effect of these acquisitions on the Company's consolidated financial statements was not material individually or in the aggregate.

Other 2021 Acquisitions — During the year ended December 31, 2021, the Company completed four additional acquisitions with an aggregate purchase price of \$65.2 million including contingent consideration with an acquisition-date fair value of \$17.6 million. The Company could pay up to \$30.2 million in contingent consideration and the actual future payouts are subject to attainment of specified performance targets during the periods ranging from 12 months to 48 months after the respective acquisition dates. These acquisitions increased EPAM's e-platform offerings and expanded the Company's geographical reach as well as added \$14.1 million in intangible assets, consisting mainly of customer relationships. Revenues generated by these Other 2021 Acquisitions totaled \$19.5 million during the year ended December 31, 2021. Pro forma results of operations have not been presented because the effect of these acquisitions on the Company's consolidated financial statements was not material individually or in the aggregate.

2022 Acquisitions — During the year ended December 31, 2022, the Company completed two acquisitions with a total purchase price of \$13.6 million including contingent consideration with acquisition-date fair value of \$2.6 million. These acquisitions expanded EPAM's capabilities to deliver end-to-end solutions for designing and building sophisticated commerce platforms, provided opportunities for geographic expansion as well as added \$3.4 million of intangible assets, consisting of customer relationships. Revenues generated by these 2022 Acquisitions totaled \$8.7 million during the year ended December 31, 2022. Pro forma results of operations have not been presented because the effect of these acquisitions on the Company's consolidated financial statements was not material individually or in the aggregate.

2023 Acquisitions — During the year ended December 31, 2023, the Company completed two acquisitions with a total purchase price of \$42.6 million including contingent consideration with acquisition-date fair value of \$14.9 million. These acquisitions expanded EPAM's capabilities in software design and product development, as well as added \$13.9 million of intangible assets, consisting of customer relationships. Revenues generated by these 2023 Acquisitions totaled \$8.2 million during the year ended December 31, 2023. Pro forma results of operations have not been presented because the effect of these acquisitions on the Company's consolidated financial statements was not material individually or in the aggregate.

4. GOODWILL AND INTANGIBLE ASSETS, NET

Goodwill by reportable segment was as follows:

	North America	Europe	Russia	Total
Balance as of January 1, 2022	\$ 217,594	\$ 312,413	\$ 716	\$ 530,723
2022 Acquisitions	—	10,124	—	10,124
Emakina acquisition purchase accounting adjustments	—	2,602	—	2,602
PolSource acquisition purchase accounting adjustments	(44)	(30)	—	(74)
CORE acquisition purchase accounting adjustments	—	959	—	959
Other 2021 Acquisitions purchase accounting adjustments	(20)	937	—	917
Goodwill impairment	—	—	(686)	(686)
Effect of net foreign currency exchange rate changes	(570)	(14,893)	(30)	(15,493)
Balance as of December 31, 2022	\$ 216,960	\$ 312,112	\$ —	\$ 529,072
2023 Acquisitions	24,477	—	—	24,477
2022 Acquisitions purchase accounting adjustments	—	87	—	87
Effect of net foreign currency exchange rate changes	423	8,400	—	8,823
Balance as of December 31, 2023	\$ 241,860	\$ 320,599	\$ —	\$ 562,459

See Note 2 "Impact of the Invasion of Ukraine" for more information regarding the goodwill impairment recorded in the Russia segment during the year ended December 31, 2022.

The Russia segment had accumulated goodwill impairment losses of \$2.9 million as of December 31, 2022, and \$2.2 million as of December 31, 2021. On July 26, 2023, the Company completed the sale of its remaining holdings in Russia to a third-party. There were no accumulated goodwill impairment losses in the North America or Europe reportable segments as of December 31, 2023, 2022 or 2021.

Intangible assets other than goodwill as of December 31, 2023 and 2022 were as follows:

	Weighted average life at acquisition (in years)	As of December 31, 2023		
		Gross carrying amount	Accumulated amortization	Net carrying amount
Customer relationships	8	\$ 171,735	\$ (103,651)	\$ 68,084
Trade names	4	10,798	(9,588)	1,210
Software	6	6,134	(4,825)	1,309
Contract royalties	8	1,900	(1,385)	515
Total		\$ 190,567	\$ (119,449)	\$ 71,118

	Weighted average life at acquisition (in years)	As of December 31, 2022		
		Gross carrying amount	Accumulated amortization	Net carrying amount
Customer relationships	8	\$ 154,407	\$ (82,505)	\$ 71,902
Trade names	4	10,520	(7,900)	2,620
Software	6	6,022	(3,644)	2,378
Contract royalties	8	1,900	(1,148)	752
Total		\$ 172,849	\$ (95,197)	\$ 77,652

All of the intangible assets other than goodwill have finite lives and as such are subject to amortization. Amortization of the other intangible assets is recognized in Depreciation and amortization expense in the consolidated statements of income.

The following table presents amortization expense recognized for the periods indicated:

	For the Years Ended December 31,		
	2023	2022	2021
Customer relationships	\$ 19,855	\$ 18,946	\$ 15,399
Trade names	1,522	1,909	842
Software	1,102	1,086	1,114
Contract royalties	238	238	238
Assembled workforce	—	44	53
Total	\$ 22,717	\$ 22,223	\$ 17,646

Based on the carrying value of the Company's existing intangible assets as of December 31, 2023, the estimated amortization expense for the future years is as follows:

Year ending December 31,	Amount
2024	\$ 22,080
2025	18,264
2026	14,133
2027	9,870
2028	2,999
Thereafter	3,772
Total	\$ 71,118

5. FAIR VALUE MEASUREMENTS

The Company carries certain assets and liabilities at fair value on a recurring basis on its consolidated balance sheets. The following table shows the fair values of the Company's financial assets and liabilities measured at fair value on a recurring basis as of December 31, 2023:

	As of December 31, 2023			
	Balance	Level 1	Level 2	Level 3
Foreign exchange derivative assets	\$ 10,416	\$ —	\$ 10,416	\$ —
Total assets measured at fair value on a recurring basis	\$ 10,416	\$ —	\$ 10,416	\$ —
Foreign exchange derivative liabilities	\$ 248	\$ —	\$ 248	\$ —
Contingent consideration	23,150	—	—	23,150
Total liabilities measured at fair value on a recurring basis	\$ 23,398	\$ —	\$ 248	\$ 23,150

The following table shows the fair values of the Company's financial assets and liabilities measured at fair value on a recurring basis as of December 31, 2022.

	As of December 31, 2022			
	Balance	Level 1	Level 2	Level 3
Foreign exchange derivative assets	\$ 12,191	\$ —	\$ 12,191	\$ —
Rights to acquire noncontrolling interest in consolidated subsidiaries	334	—	—	334
Total assets measured at fair value on a recurring basis	\$ 12,525	\$ —	\$ 12,191	\$ 334
Foreign exchange derivative liabilities	\$ 9,350	\$ —	\$ 9,350	\$ —
Contingent consideration	24,308	—	—	24,308
Total liabilities measured at fair value on a recurring basis	\$ 33,658	\$ —	\$ 9,350	\$ 24,308

The foreign exchange derivatives are valued using pricing models and discounted cash flow methodologies based on observable foreign exchange data at the measurement date. See Note 6 "Derivative Financial Instruments" for additional information regarding derivative financial instruments.

As part of the acquisition of Emakina, the Company acquired rights to purchase certain noncontrolling interests in consolidated subsidiaries of Emakina in exchange for future cash payments determined by the future profitability of certain subsidiaries. The Company determines the fair value of these rights by (i) estimating the fair value of the noncontrolling interests in consolidated subsidiaries by applying an EBITDA multiple adjusted for a lack of control and marketability, less (ii) the fair value of expected future payments to settle the related contractual obligations. The Company purchased the majority of the noncontrolling interest in consolidated subsidiaries during the year ended December 31, 2022 and during the year ended December 31, 2023, the Company purchased the remaining noncontrolling interest in consolidated subsidiaries.

The Company determines the fair value of the contingent consideration using Monte Carlo simulations or probability-weighted expected return methods. The fair value of the contingent consideration for the PolSource acquisition attributable to future revenues and earnings was measured utilizing a Monte Carlo simulation, based on future revenue and earnings projections of the business, revenue volatility and asset volatility of comparable companies, and a discount rate. The discount rate used to determine the fair value of this contingent consideration was 0.4% as of the acquisition date. The fair value of the contingent consideration for the PolSource acquisition attributable to future operating metrics was measured using a probability-weighted expected return method, based on the expected future payments using the earnout formula and performance targets specified in the purchase agreement and adjusting those estimates to reflect the probability of their achievement. The weighted average estimated future payments were then discounted to present value using a rate based on EPAM's cost of debt. The discount rate used to determine the fair value of this contingent consideration was 0.4% as of the acquisition date.

The fair value of the contingent consideration liabilities for all other acquisitions was determined using a probability-weighted expected return method and is based on the expected future payments to be made to the sellers of the acquired businesses in accordance with the provisions outlined in the respective purchase agreements. Although there is significant judgment involved, the Company believes its estimates and assumptions are reasonable. In determining fair value, the Company considered a variety of factors, including future performance of the acquired businesses using financial projections developed by the Company and market risk assumptions that were derived for revenue growth and earnings before interest and taxes. The Company estimated future payments using the earnout formula and performance targets specified in the purchase agreements and adjusted those estimates to reflect the probability of their achievement. Those weighted average estimated future payments were then discounted to present value using a rate based on the weighted average cost of capital of guideline companies. The discount rate used to determine the fair value of contingent consideration for 2023 Acquisitions was 16.0%. The discount rate used to determine the fair value of contingent consideration for the 2022 Acquisitions ranged from a minimum of 13.0% to a maximum of 15.0%. The discount rate used to determine the fair value of contingent consideration for the CORE acquisition was 13.0%. The discount rates used to determine the fair value of contingent consideration for the Other 2021 Acquisitions ranged from a minimum of 15.0% to a maximum of 22.0%. Changes in financial projections, market risk assumptions, discount rates or probability assumptions related to achieving the various earnout criteria would result in a change in the fair value of the recorded contingent liabilities. Such changes, if any, are recorded within Interest and other income/(loss), net in the Company's consolidated statement of income.

A reconciliation of the beginning and ending balances of Level 3 contingent consideration liabilities using significant unobservable inputs for the years ended December 31, 2021, December 31, 2022, and December 31, 2023 are as follows:

	Amount
Contingent consideration liabilities as of January 1, 2021	\$ 7,470
Acquisition date fair value of contingent consideration — PolSource acquisition	35,400
Acquisition date fair value of contingent consideration — CORE acquisition	4,007
Acquisition date fair value of contingent consideration — Emakina acquisition	213
Acquisition date fair value of contingent consideration — Other 2021 Acquisitions	17,629
Changes in fair value of contingent consideration included in Interest and other income/(loss), net	8,782
Payment of contingent consideration for previously acquired businesses	(50,000)
Effect of net foreign currency exchange rate changes	(387)
Contingent consideration liabilities as of December 31, 2021	\$ 23,114
Acquisition date fair value of contingent consideration — 2022 Acquisitions	2,645
Changes in fair value of contingent consideration included in Interest and other income/(loss), net	11,101
Payment of contingent consideration for previously acquired businesses	(11,328)
Effect of net foreign currency exchange rate changes	(1,224)
Contingent consideration liabilities as of December 31, 2022	\$ 24,308
Acquisition date fair value of contingent consideration — 2023 Acquisitions	14,850
Changes in fair value of contingent consideration included in Interest and other income/(loss), net	2,814
Payment of contingent consideration for previously acquired businesses	(18,844)
Effect of net foreign currency exchange rate changes	22
Contingent consideration liabilities as of December 31, 2023	\$ 23,150

See Note 2 "Impact of the Invasion of Ukraine" for discussion of the nonrecurring Level 3 fair value assessment used in the impairment test of long-lived assets in Russia during the year ended December 31, 2022.

Financial Assets and Liabilities Not Measured at Fair Value on a Recurring Basis

The following tables present the estimated fair values of the Company's financial assets and liabilities not measured at fair value on a recurring basis as of the dates indicated:

			Fair Value Hierarchy		
	Balance	Estimated Fair Value	Level 1	Level 2	Level 3
December 31, 2023					
Financial Assets:					
Cash equivalents:					
Money market funds	\$ 168,120	\$ 168,120	\$ 168,120	\$ —	\$ —
Time deposits	\$ 105,210	\$ 105,210	\$ —	\$ 105,210	\$ —
Total cash equivalents	\$ 273,330	\$ 273,330	\$ 168,120	\$ 105,210	\$ —
Time deposits included in Short-term investments	\$ 60,739	\$ 60,739	\$ —	\$ 60,739	\$ —
Financial Liabilities:					
Borrowings under 2021 Credit Agreement	\$ 25,000	\$ 25,000	\$ —	\$ 25,000	\$ —
Deferred consideration for asset acquisition	\$ 46,954	\$ 46,954	\$ —	\$ 46,954	\$ —

			Fair Value Hierarchy		
	Balance	Estimated Fair Value	Level 1	Level 2	Level 3
December 31, 2022					
Financial Assets:					
Cash equivalents:					
Money market funds	\$ 312,321	\$ 312,321	\$ 312,321	\$ —	\$ —
Total cash equivalents	\$ 312,321	\$ 312,321	\$ 312,321	\$ —	\$ —
Time deposits included in Short-term investments	\$ 60,336	\$ 60,336	\$ —	\$ 60,336	\$ —
Financial Liabilities:					
Short-term debt	\$ 2,861	\$ 2,861	\$ —	\$ 2,861	\$ —
Borrowings under 2021 Credit Agreement	\$ 25,000	\$ 25,000	\$ —	\$ 25,000	\$ —
Other long-term debt	\$ 2,693	\$ 2,693	\$ —	\$ 2,693	\$ —
Deferred consideration for asset acquisition	\$ 53,636	\$ 53,636	\$ —	\$ 53,636	\$ —

Non-Marketable Securities Without Readily Determinable Fair Values

The Company holds investments in equity securities that do not have readily determinable fair values. These investments are recorded at cost and are remeasured to fair value based on certain observable price changes or impairment events as they occur. The carrying amount of these investments was \$31.7 million and \$28.4 million as of December 31, 2023 and December 31, 2022, respectively and is classified as Other noncurrent assets in the Company's consolidated balance sheets.

6. DERIVATIVE FINANCIAL INSTRUMENTS

In the normal course of business, the Company uses derivative financial instruments to manage the risk of fluctuations in foreign currency exchange rates. The Company has a hedging program whereby it enters into a series of foreign exchange forward contracts with durations of twelve months or less that are designated as cash flow hedges of forecasted Polish zloty, Indian rupee, and Hungarian forint transactions.

During the three months ended March 31, 2022, in response to the invasion of Ukraine, the Company de-designated its Russian ruble foreign exchange forward contracts as hedges and entered into offsetting foreign exchange forward contracts with the same counterparty. The Company determined it was probable the underlying forecasted foreign currency transactions which were hedged would not occur and reclassified the accumulated loss of \$43.9 million on the underlying hedges into income which is classified as foreign exchange loss in the consolidated statement of income. As of December 31, 2023, all of the Company's Russian ruble foreign exchange forwards contracts had settled.

The Company measures derivative instruments and hedging activities at fair value and recognizes them as either assets or liabilities in its consolidated balance sheets. Accounting for the gains and losses resulting from changes in fair value depends on the use of the derivative and whether it is designated and qualifies for hedge accounting. To receive hedge accounting treatment, all hedging relationships are formally documented at the inception of the hedge, and the hedges must be highly effective in offsetting changes to future cash flows on hedged transactions. As of December 31, 2023, all of the Company's foreign exchange forward contracts were designated as hedges.

Derivatives may give rise to credit risks from the possible non-performance by counterparties. The Company has limited its credit risk by entering into derivative transactions only with highly rated financial institutions and by conducting an ongoing evaluation of the creditworthiness of the financial institutions with which the Company does business. There is no financial collateral (including cash collateral) required to be posted by the Company related to the foreign exchange forward contracts.

The fair value of foreign currency derivative instruments on the Company's consolidated balance sheets as of December 31, 2023 and December 31, 2022 were as follows:

	Balance Sheet Classification	As of December 31, 2023		As of December 31, 2022	
		Asset Derivatives	Liability Derivatives	Asset Derivatives	Liability Derivatives
Foreign exchange forward contracts - Designated as hedging instruments	Prepaid expenses and other current assets	\$ 10,416		\$ 12,191	
	Accrued expenses and other current liabilities		\$ 248		\$ 1,445
Foreign exchange forward contracts - Not designated as hedging instruments	Accrued expenses and other current liabilities		\$ —		\$ 7,905

7. PROPERTY AND EQUIPMENT, NET

Property and equipment, net consisted of the following:

	Weighted Average Useful Life (in years)	As of December 31, 2023	As of December 31, 2022
Computer hardware	4	\$ 155,991	\$ 157,283
Purchased computer software	5	88,644	99,414
Buildings	45	54,899	54,627
Leasehold improvements	7	37,189	32,949
Furniture, fixture and other equipment	7	22,583	22,153
Office equipment	7	18,315	19,039
Land improvements	18	2,142	2,137
Land	n/a	1,339	1,339
Construction in progress	n/a	51,477	51,502
		432,579	440,443
Less: accumulated depreciation and amortization		(197,526)	(167,095)
Total		\$ 235,053	\$ 273,348

Depreciation and amortization expense related to property and equipment was \$68.2 million, \$69.0 million and \$65.5 million during the years ended December 31, 2023, 2022 and 2021, respectively.

The Company has assets which generate lease income including subleases of portions of its office space to third parties. The gross amount of such assets was \$5.9 million and \$3.6 million, and the associated accumulated depreciation was \$1.9 million and \$0.3 million as of December 31, 2023 and 2022, respectively. Depreciation expense associated with these assets held under operating leases was \$0.5 million for the year ended December 31, 2023, and \$0.1 million in both years ended December 31, 2022 and 2021.

The Company owns buildings located in Belarus, which are used in the Company's normal operations as office space for its employees. On November 17, 2021, the Company acquired an office building in the process of being constructed in Kyiv, Ukraine for \$50.1 million. Once completed, the acquired building is intended to be used in the Company's normal operations as office space for its employees. The office building is classified as construction-in-progress as of December 31, 2023 and, due to Russia's invasion of Ukraine, it is uncertain when this office building will be available for its intended use. See Note 2 "Impact of the Invasion of Ukraine" for more information regarding the assets in Ukraine.

During the year ended December 31, 2022, the Company completed an asset acquisition of software licenses for use in the regular course of business for a purchase price of \$66.1 million, which includes an upfront payment of \$13.3 million and fixed deferred consideration, payable in annual installments, with an acquisition-date fair value of \$52.8 million. To estimate fair value, the future payments were discounted to present value using a discount rate based on the estimated borrowing rate of the Company. The weighted average discount rate used to determine the acquisition-date fair value was 5.2%. During the year ended December 31, 2023, this agreement was amended resulting in the derecognition of \$20.8 million of software license assets, net of accumulated depreciation, and \$21.4 million of deferred consideration liability. As part of the amendment, the Company purchased new software licenses for use in the regular course of business for a purchase price of \$26.7 million, which includes an upfront payment of \$6.8 million and fixed deferred consideration, payable in annual installments, with an acquisition-date fair value of \$19.9 million. To estimate fair value, the future payments were discounted to present value using a discount rate based on the estimated borrowing rate of the Company. The weighted average discount rate used to determine the acquisition-date fair value was 5.5%. See Note 17 "Commitments and Contingencies" for more information regarding the deferred consideration.

8. ACCRUED EXPENSES AND OTHER CURRENT LIABILITIES

Accrued expenses and other current liabilities consisted of the following:

	As of December 31, 2023	As of December 31, 2022
Value added taxes payable	\$ 39,852	\$ 47,433
Deferred revenue	27,988	36,036
Contingent consideration, current (Note 5)	9,650	18,008
Other current liabilities and accrued expenses	47,333	52,862
Total	\$ 124,823	\$ 154,339

9. LEASES

The Company leases office space, corporate apartments, office equipment, and vehicles. Many of the Company's leases contain variable payments including changes in base rent and charges for common area maintenance or other miscellaneous expenses. Due to this variability, the cash flows associated with these variable payments are not included in the minimum lease payments used in determining the right-of-use assets and associated lease liabilities and are recognized in the period in which the obligation for such payments is incurred. The Company's leases have remaining lease terms ranging from 0.1 to 8.1 years. Certain lease agreements, mainly for office space, include options to extend or terminate the lease before the expiration date. The Company considers such options when determining the lease term when it is reasonably certain that the Company will exercise that option. The Company leases and subleases a portion of its office space to third parties. Lease income and sublease income were immaterial for the years ended December 31, 2023, 2022 and 2021. See Note 2 "Impact of the Invasion of Ukraine" for discussion of impairment of right-of-use assets in Russia.

During the years ended December 31, 2023, 2022 and 2021, the components of lease expense were as follows:

	Income Statement Classification	Year Ended December 31, 2023	Year Ended December 31, 2022	Year Ended December 31, 2021
Operating lease cost	Selling, general and administrative expenses	\$ 47,824	\$ 51,775	\$ 67,144
Variable lease cost	Selling, general and administrative expenses	13,156	10,372	8,555
Short-term lease cost	Selling, general and administrative expenses	5,602	5,289	2,248
Total lease cost		\$ 66,582	\$ 67,436	\$ 77,947

Supplemental cash flow information related to leases for the years ended December 31, 2023 and 2022 were as follows:

	Year Ended December 31, 2023	Year Ended December 31, 2022
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows used for operating leases	\$ 52,373	\$ 54,344
Right-of-use assets obtained in exchange for lease obligations:		
Operating leases	\$ 18,063	\$ 35,048
Non-cash net increase/ (decrease) due to lease modifications:		
Operating lease right-of-use assets	\$ 7,595	\$ (2,934)
Operating lease liabilities	\$ 9,198	\$ (4,254)

Weighted average remaining lease terms and discount rates as of December 31, 2023 and 2022, were as follows:

	As of December 31, 2023	As of December 31, 2022
Weighted average remaining lease term, in years:		
Operating leases	5.0	5.4
Weighted average discount rate:		
Operating leases	4.1 %	2.8 %

As of December 31, 2023, operating lease liabilities will mature as follows:

Year ending December 31,	Lease Payments
2024	\$ 41,495
2025	34,529
2026	28,579
2027	19,173
2028	16,477
Thereafter	19,732
Total lease payments	159,985
Less: imputed interest	(14,166)
Total	\$ 145,819

There were no lease agreements that contained material restrictive covenants or material residual value guarantees as of December 31, 2023. There were no material lease agreements signed with related parties as of December 31, 2023.

As of December 31, 2023, the Company had committed to payments of \$9.9 million related to operating lease agreements that had not yet commenced as of December 31, 2023. These operating leases will commence on various dates during 2024 with lease terms ranging from 0.5 to 7.0 years. The Company does not have any material finance lease agreements that had not yet commenced.

10. DEBT

Revolving Credit Facility — On October 21, 2021, the Company replaced its 2017 credit facility with a new unsecured credit agreement (the “2021 Credit Agreement”) with PNC Bank, National Association; PNC Capital Markets LLC; Citibank N.A.; Wells Fargo Bank, National Association; Santander Bank, N.A.; and Raiffeisen Bank International AG (collectively the “Lenders”). The 2021 Credit Agreement provides for a revolving credit facility (the “2021 Revolving Facility”) with a borrowing capacity of \$700.0 million, with the potential to increase the borrowing capacity up to \$1,000.0 million if certain conditions are met. The 2021 Credit Agreement matures on October 21, 2026.

Borrowings under the 2021 Revolving Facility may be denominated in U.S. dollars or up to a maximum of \$150.0 million equivalent in British pounds sterling, Canadian dollars, euros or Swiss francs and other currencies as may be approved by the administrative agent and the Lenders. Borrowings under the 2021 Revolving Facility bear interest at either a base rate or Euro-rate plus a margin based on the Company's leverage ratio. The base rate is equal to the highest of (a) the Overnight Bank Funding Rate, plus 0.5%, (b) the Prime Rate, or (c) the Daily Simple SOFR Rate, plus 1.0%, so long as the Daily Simple SOFR Rate is offered, ascertainable and not unlawful. As of December 31, 2023, the Company's outstanding borrowings are subject to a SOFR-based interest rate, which resets regularly at issuance, based on lending terms.

The 2021 Credit Agreement includes customary business and financial covenants that may restrict the Company's ability to make or pay dividends (other than certain intercompany dividends) if a potential or an actual event of default has occurred or would be triggered. As of December 31, 2023, the Company was in compliance with all covenants contained in the 2021 Credit Agreement.

The following table presents the outstanding debt and borrowing capacity of the Company under the 2021 Credit Agreement as of December 31, 2023 and 2022:

	As of December 31, 2023	As of December 31, 2022
Outstanding debt	\$ 25,000	\$ 25,000
Interest rate	6.3 %	5.2 %
Available borrowing capacity	\$ 675,000	\$ 675,000
Maximum borrowing capacity	\$ 700,000	\$ 700,000

11. PENSION AND POSTRETIREMENT BENEFITS

Defined Contribution Pension Plans

The Company offers defined contribution plans for its employees in certain countries including a 401(k) retirement plan covering substantially all of the Company's U.S. employees. Employer contributions charged to expense for defined contribution benefit plans for the years ended December 31, 2023, 2022 and 2021, were \$31.4 million, \$29.0 million, and \$21.3 million, respectively.

Defined Benefit Pension Plans

The Company sponsors defined benefit pension plans for its employees in certain countries as governed by local regulatory requirements. During the years ended December 31, 2023, 2022, and 2021, the Company recorded expense of \$9.4 million, \$8.3 million and \$5.5 million, respectively, related to these plans.

As of December 31, 2023 and 2022, the amounts recognized in the Company's consolidated balance sheets for the Company's defined benefit pension plans, all of which were underfunded, were as follows:

	As of December 31, 2023	As of December 31, 2022
Liabilities recognized:		
Accrued compensation and benefits expenses	\$ 998	\$ 832
Other noncurrent liabilities	14,912	9,793
Unfunded status	<u>\$ 15,910</u>	<u>\$ 10,625</u>

12. COST OPTIMIZATION PROGRAM

During the quarter ended September 30, 2023, the Company initiated a Cost Optimization Program to streamline operations and optimize corporate functions. This program is expected to include workforce reduction and closure of underutilized facilities.

The total costs related to the Cost Optimization Program are classified in Selling, general and administrative expenses in the consolidated statements of income. The Company did not allocate these charges to individual segments as they are not considered by the chief operating decision maker during the review of segment results. Accordingly, such expenses are separately disclosed in our segment reporting as "Other unallocated expenses" (See Note 18 "Segment Information").

Activity in the Company's restructuring reserves was as follows:

	Balance at December 31, 2022	Charges	Payments Made	Balance at December 31, 2023
2023 Cost Optimization Program				
Employee separation costs	\$ —	\$ 28,990	\$ (22,024)	\$ 6,966
Total	\$ —	\$ 28,990	\$ (22,024)	\$ 6,966

The charges reflected in the above activity of the restructuring reserves do not include 2023 Cost Optimization Program charges recorded directly to expenses during the year ended December 31, 2023, including facility exit costs of \$6.1 million, as these charges are not recorded in the restructuring reserves on the consolidated balance sheet. Facility exit costs generally reflect the accelerated rent expense for ROU assets, expected lease termination costs, or costs that will continue to be incurred under the facility lease without future economic benefit to the Company.

The Company expects to complete all restructuring actions commenced during the twelve months ended December 31, 2023 by the end of the first half of 2024 and to incur additional charges of approximately \$2.3 million related primarily to employee severance. The actual amount and timing of severance and other costs are dependent in part upon local country consultation processes and regulations and may differ from our current expectations and estimates.

13. REVENUES

Revenues are sourced from four geographic markets: Americas, EMEA, APAC, and CEE. The Company presents and discusses revenues by customer location based on the location of the specific customer site that it serves, irrespective of the location of the headquarters of the customer or the location of the delivery center where the work is performed. Revenues by customer location is different from revenues by reportable segment as segments are not based on the geographic location of the customers, but instead they are based on the location of the Company's management responsible for a particular customer or market (see Note 18 "Segment Information"). The Company assigns customers into one of five main industries or a group of various industries where the Company is increasing its presence, which is labeled as "Emerging Verticals." Emerging Verticals include customers in multiple industries such as energy, utilities, manufacturing, automotive, telecommunications and several others.

Disaggregation of Revenues

The following tables present the disaggregation of the Company's revenues by major customer location, including a reconciliation of the disaggregated revenues with the Company's reportable segments (Note 18 "Segment Information") for the years ended December 31, 2023, 2022 and 2021:

Year Ended December 31, 2023				
	Reportable Segments			Consolidated Revenues
	North America	Europe	Russia	
Customer Locations				
Americas	\$ 2,645,174	\$ 96,857	\$ 631	\$ 2,742,662
EMEA	116,054	1,706,728	—	1,822,782
APAC	3,248	98,890	—	102,138
CEE	546	6,968	15,444	22,958
Revenues	\$ 2,765,022	\$ 1,909,443	\$ 16,075	\$ 4,690,540

Year Ended December 31, 2022				
	Reportable Segments			Consolidated Revenues
	North America	Europe	Russia	
Customer Locations				
Americas	\$ 2,792,156	\$ 92,244	\$ 2,804	\$ 2,887,204
EMEA	95,706	1,642,114	99	1,737,919
APAC	3,837	116,533	—	120,370
CEE	6,855	2,165	70,185	79,205
Revenues	\$ 2,898,554	\$ 1,853,056	\$ 73,088	\$ 4,824,698

Year Ended December 31, 2021				
	Reportable Segments			Consolidated Revenues
	North America	Europe	Russia	
Customer Locations				
Americas	\$ 2,145,163	\$ 77,351	\$ 4,316	\$ 2,226,830
EMEA	87,121	1,172,267	329	1,259,717
APAC	3,224	100,335	—	103,559
CEE	6,740	531	160,767	168,038
Revenues	\$ 2,242,248	\$ 1,350,484	\$ 165,412	\$ 3,758,144

The following tables present the disaggregation of the Company's revenues by industry vertical, including a reconciliation of the disaggregated revenues with the Company's reportable segments (Note 18 "Segment Information") for the years ended December 31, 2023, 2022 and 2021:

Year Ended December 31, 2023				
	Reportable Segments			Consolidated Revenues
	North America	Europe	Russia	
Industry Verticals				
Travel & Consumer	\$ 472,350	\$ 596,830	\$ 3,770	\$ 1,072,950
Financial Services	538,837	472,146	7,450	1,018,433
Business Information & Media	429,800	323,985	196	753,981
Software & Hi-Tech	552,492	153,683	1,545	707,720
Life Sciences & Healthcare	429,245	60,549	120	489,914
Emerging Verticals	342,298	302,250	2,994	647,542
Revenues	\$ 2,765,022	\$ 1,909,443	\$ 16,075	\$ 4,690,540

Year Ended December 31, 2022				
	Reportable Segments			Consolidated Revenues
	North America	Europe	Russia	
Industry Verticals				
Travel & Consumer	\$ 505,227	\$ 571,437	\$ 15,560	\$ 1,092,224
Financial Services	522,970	460,858	42,858	1,026,686
Business Information & Media	467,664	341,344	944	809,952
Software & Hi-Tech	655,122	136,273	1,866	793,261
Life Sciences & Healthcare	454,102	52,465	800	507,367
Emerging Verticals	293,469	290,679	11,060	595,208
Revenues	\$ 2,898,554	\$ 1,853,056	\$ 73,088	\$ 4,824,698

Year Ended December 31, 2021				
	Reportable Segments			Consolidated Revenues
	North America	Europe	Russia	
Industry Verticals				
Travel & Consumer	\$ 359,306	\$ 354,041	\$ 27,781	\$ 741,128
Financial Services	361,611	372,394	114,365	848,370
Business Information & Media	389,613	275,502	1,826	666,941
Software & Hi-Tech	559,707	102,270	2,620	664,597
Life Sciences & Healthcare	340,706	49,900	703	391,309
Emerging Verticals	231,305	196,377	18,117	445,799
Revenues	\$ 2,242,248	\$ 1,350,484	\$ 165,412	\$ 3,758,144

The Company derives revenues from a variety of customized and integrated service arrangements. These contracts may be in the form of time-and-materials or fixed-price arrangements.

The following tables present the disaggregation of the Company's revenues by contract type, including a reconciliation of the disaggregated revenues with the Company's reportable segments (Note 18 "Segment Information") for the years ended December 31, 2023, 2022 and 2021:

Year Ended December 31, 2023				
	Reportable Segments			Consolidated Revenues
	North America	Europe	Russia	
Contract Types				
Time-and-material	\$ 2,457,545	\$ 1,613,790	\$ 11,168	\$ 4,082,503
Fixed-price	283,183	291,174	4,873	579,230
Licensing and other revenues	24,294	4,479	34	28,807
Revenues	\$ 2,765,022	\$ 1,909,443	\$ 16,075	\$ 4,690,540

Year Ended December 31, 2022				
	Reportable Segments			Consolidated Revenues
	North America	Europe	Russia	
Contract Types				
Time-and-material	\$ 2,615,213	\$ 1,578,786	\$ 45,581	\$ 4,239,580
Fixed-price	263,603	269,669	27,195	560,467
Licensing and other revenues	19,738	4,601	312	24,651
Revenues	\$ 2,898,554	\$ 1,853,056	\$ 73,088	\$ 4,824,698

Year Ended December 31, 2021				
	Reportable Segments			Consolidated Revenues
	North America	Europe	Russia	
Contract Types				
Time-and-material	\$ 1,981,696	\$ 1,145,606	\$ 82,445	\$ 3,209,747
Fixed-price	244,249	202,436	82,711	529,396
Licensing and other revenues	16,303	2,442	256	19,001
Revenues	\$ 2,242,248	\$ 1,350,484	\$ 165,412	\$ 3,758,144

Timing of Revenue Recognition

The following tables present the revenues disaggregated by timing of revenue recognition and reconciled with the Company's reportable segments (Note 18 "Segment Information") for the years ended December 31, 2023, 2022 and 2021:

	Year Ended December 31, 2023			
	Reportable Segments			Consolidated Revenues
	North America	Europe	Russia	
Timing of Revenue Recognition				
Transferred over time	\$ 2,751,937	\$ 1,907,010	\$ 16,042	\$ 4,674,989
Transferred at a point of time	13,085	2,433	33	15,551
Revenues	\$ 2,765,022	\$ 1,909,443	\$ 16,075	\$ 4,690,540

	Year Ended December 31, 2022			
	Reportable Segments			Consolidated Revenues
	North America	Europe	Russia	
Timing of Revenue Recognition				
Transferred over time	\$ 2,888,342	\$ 1,849,011	\$ 72,795	\$ 4,810,148
Transferred at a point of time	10,212	4,045	293	14,550
Revenues	\$ 2,898,554	\$ 1,853,056	\$ 73,088	\$ 4,824,698

	Year Ended December 31, 2021			
	Reportable Segments			Consolidated Revenues
	North America	Europe	Russia	
Timing of Revenue Recognition				
Transferred over time	\$ 2,232,308	\$ 1,349,956	\$ 165,301	\$ 3,747,565
Transferred at a point of time	9,940	528	111	10,579
Revenues	\$ 2,242,248	\$ 1,350,484	\$ 165,412	\$ 3,758,144

During the years ended December 31, 2023, 2022 and 2021 the Company recognized \$5.8 million, \$7.5 million and \$18.7 million, respectively, of revenues from performance obligations satisfied in previous periods.

The following table includes the estimated revenues expected to be recognized in the future related to performance obligations that are partially or fully unsatisfied as of December 31, 2023. The Company applies a practical expedient and does not disclose the value of unsatisfied performance obligations for contracts that (i) have an original expected duration of one year or less and (ii) contracts for which it recognizes revenues at the amount to which it has the right to invoice for services provided:

	Less than 1 year	1 Year	2 Years	3 Years	Total
Contract Type					
Fixed-price	\$ 6,678	\$ 810	\$ 203	\$ —	\$ 7,691

The Company applies a practical expedient and does not disclose the amount of the transaction price allocated to the remaining performance obligations nor provide an explanation of when the Company expects to recognize that amount as revenue for certain variable consideration.

Contract Balances

The following table provides information on the classification of contract assets and liabilities in the consolidated balance sheets:

	As of December 31, 2023	As of December 31, 2022
Contract assets included in Trade receivables and contract assets	\$ 24,309	\$ 11,490
Contract liabilities included in Accrued expenses and other current liabilities	\$ 27,988	\$ 36,036
Contract liabilities included in Other noncurrent liabilities	\$ 951	\$ 42

Contract assets comprise amounts where the Company's right to bill is contingent on something other than the passage of time. Contract assets have increased from December 31, 2022 primarily due to contracts where the Company's right to bill is contingent upon achievement of contractual milestones. Contract liabilities comprise amounts collected from the Company's customers for revenues not yet earned and such amounts are anticipated to be recorded as revenues when services are performed in subsequent periods. Contract liabilities have decreased from December 31, 2022, primarily due to a reduction in advance payments from customers in 2023 as compared to 2022.

During the year ended December 31, 2023, the Company recognized \$30.6 million of revenues that were included in Accrued expenses and other current liabilities at December 31, 2022. During the year ended December 31, 2022, the Company recognized \$35.4 million of revenues that were included in Accrued expenses and other current liabilities at December 31, 2021.

14. STOCKHOLDERS' EQUITY

Stock-Based Compensation

The following costs related to the Company's stock compensation plans were included in the consolidated statements of income:

	For the Years Ended December 31,		
	2023	2022	2021
Cost of revenues (exclusive of depreciation and amortization)	\$ 68,797	\$ 47,470	\$ 51,580
Selling, general and administrative expenses	78,933	52,439	60,075
Total	\$ 147,730	\$ 99,909	\$ 111,655

Equity Plans

The Company has long-term incentive plans under which 2.962 million shares of common stock are available for issuance to Company personnel and 509 thousand shares of common stock are available for issuance to non-employee directors as of December 31, 2023. All of the awards issued pursuant to the long-term incentive plans expire 10 years from the date of grant.

In addition, the Company maintains an Employee Stock Purchase Plan ("ESPP") to enable eligible employees to purchase shares of EPAM's common stock at a discount through payroll deductions of up to 10% of their eligible compensation at the end of each designated offering period, which occurs every six months ending April 30th and October 31st. The purchase price is equal to 85% of the fair market value of a share of EPAM's common stock on the first date of an offering or the date of purchase, whichever is lower. As of December 31, 2023, 607 thousand shares of common stock remained available for issuance under the ESPP.

Stock Options

Stock option activity under the Company's long-term incentive plans is set forth below:

	Number of Options	Weighted Average Exercise Price	Aggregate Intrinsic Value	Weighted Average Remaining Contractual Term (in years)
Options outstanding as of January 1, 2021	2,772	\$ 61.71	\$ 822,152	
Options granted	94	\$ 410.03		
Options exercised	(536)	\$ 49.13		
Options forfeited	(12)	\$ 248.74		
Options outstanding as of December 31, 2021	2,318	\$ 77.79	\$ 1,369,132	
Options granted	133	\$ 277.85		
Options exercised	(514)	\$ 44.02		
Options forfeited	(11)	\$ 350.19		
Options expired	(3)	\$ 128.11		
Options outstanding as of December 31, 2022	1,923	\$ 98.92	\$ 447,503	
Options granted	114	\$ 295.73		
Options exercised	(397)	\$ 39.01		
Options forfeited	(6)	\$ 316.91		
Options expired	(5)	\$ 340.13		
Options outstanding as of December 31, 2023	1,629	\$ 125.88	\$ 289,552	3.4
Options vested and exercisable as of December 31, 2023	1,348	\$ 91.33	\$ 282,764	2.4
Options expected to vest as of December 31, 2023	268	\$ 291.21	\$ 6,609	8.3

The fair value of each option award is estimated on the date of grant using the Black-Scholes option valuation model. The model incorporated the following weighted average assumptions:

	For the Years Ended December 31,		
	2023	2022	2021
Expected volatility	50.2 %	46.7 %	35.3 %
Expected term (in years)	6.23	6.24	6.24
Risk-free interest rate	3.6 %	2.6 %	1.2 %
Expected dividends	— %	— %	— %

Expected volatility is based on the historical volatility of the Company's stock price. The expected term represents the period of time that options granted are expected to be outstanding. The risk-free rate is based on the U.S. Treasury yield curve for the periods equal to the expected term of the options in effect at the time of grant. The Company has not declared or paid any dividends on its common stock and does not anticipate paying any dividends in the foreseeable future.

The weighted average grant-date fair value of stock options granted during the years ended December 31, 2023, 2022 and 2021 was \$156.11, \$134.29 and \$149.26, respectively. The total intrinsic value of options exercised during the years ended December 31, 2023, 2022 and 2021 was \$89.8 million, \$154.4 million and \$251.9 million, respectively.

The Company recognizes the fair value of each option as compensation expense on a straight-line basis over the requisite service period, which is generally the vesting period. The options are typically scheduled to vest over four years from the time of grant, subject to the terms of the applicable plan and stock option agreement. The Company records share-based compensation expense only for those awards that are expected to vest and as such, the Company applies an estimated forfeiture rate at the time of grant and adjusts the forfeiture rate estimate quarterly to reflect actual forfeiture activity. In general, in the event of a participant's voluntary termination of service, unvested options are forfeited as of the date of such termination without any payment to the participant and the cumulative amount of previously recognized expense related to the forfeited options is reversed.

As of December 31, 2023, \$22.4 million of total remaining unrecognized compensation cost related to unvested stock options, net of estimated forfeitures, is expected to be recognized over a weighted average period of 2.2 years.

Restricted Stock and Restricted Stock Units

The Company grants restricted stock units (“RSUs”) to Company personnel and non-employee directors. In addition, the Company has issued in the past, and may issue in the future, equity awards to compensate employees of acquired businesses for future services. Equity settled awards granted in connection with acquisitions of businesses may be issued in the form of service-based awards requiring continuing employment with the Company, restricted stock subject to trading restrictions, and performance-based awards, which would vest only if certain specified performance and service conditions are met. The awards issued in connection with acquisitions of businesses are subject to the terms and conditions contained in the applicable award agreements and acquisition documents.

Service-Based Awards

The table below summarizes activity related to the Company’s equity-classified and liability-classified service-based awards for the years ended December 31, 2023, 2022 and 2021:

	Equity-Classified Restricted Stock		Equity-Classified Equity-Settled Restricted Stock Units		Liability-Classified Cash-Settled Restricted Stock Units	
	Number of Shares	Weighted Average Grant Date Fair Value Per Share	Number of Shares	Weighted Average Grant Date Fair Value Per Share	Number of Shares	Weighted Average Grant Date Fair Value Per Share
Unvested service-based awards outstanding as of January 1, 2021	9	\$ 167.18	686	\$ 162.15	175	\$ 141.16
Awards granted	—	\$ —	238	\$ 429.41	27	\$ 394.24
Awards modified	—	\$ —	—	\$ —	—	\$ —
Awards vested	—	\$ —	(308)	\$ 139.83	(86)	\$ 118.05
Awards forfeited	—	\$ —	(40)	\$ 264.48	(4)	\$ 210.26
Unvested service-based awards outstanding as of December 31, 2021	9	\$ 167.18	576	\$ 277.38	112	\$ 217.28
Awards granted	—	\$ —	655	\$ 287.13	51	\$ 269.60
Awards modified	—	\$ —	(3)	\$ 387.74	3	\$ 220.00
Awards vested	(9)	\$ 167.18	(244)	\$ 235.96	(56)	\$ 184.96
Awards forfeited	—	\$ —	(68)	\$ 328.81	(11)	\$ 260.59
Unvested service-based awards outstanding as of December 31, 2022	—	\$ —	916	\$ 291.19	99	\$ 257.74
Awards granted	—	\$ —	607	\$ 288.49	36	\$ 298.81
Awards modified	—	\$ —	(15)	\$ 278.52	15	\$ 305.59
Awards vested	—	\$ —	(329)	\$ 278.25	(46)	\$ 242.07
Awards forfeited	—	\$ —	(105)	\$ 304.91	(6)	\$ 254.82
Unvested service-based awards outstanding as of December 31, 2023	—	\$ —	1,074	\$ 292.45	98	\$ 287.36

The fair value of vested service-based awards (measured at the vesting date) for the years ended December 31, 2023, 2022 and 2021 was as follows:

	For the Years Ended December 31,		
	2023	2022	2021
Equity-classified equity-settled			
Restricted stock	\$ —	\$ 3,990	\$ —
Restricted stock units	94,418	69,510	129,527
Liability-classified cash-settled			
Restricted stock units	13,229	16,238	33,947
Total fair value of vested service-based awards	\$ 107,647	\$ 89,738	\$ 163,474

As of December 31, 2023, \$215.7 million of total remaining unrecognized stock-based compensation costs related to service-based equity-classified RSUs, net of estimated forfeitures, is expected to be recognized over the weighted average remaining requisite service period of 2.6 years.

As of December 31, 2023, \$18.5 million of total remaining unrecognized stock-based compensation costs related to service-based liability-classified RSUs, net of estimated forfeitures, is expected to be recognized over the weighted average remaining requisite service period of 2.4 years.

The liability associated with the Company's service-based liability-classified RSUs as of December 31, 2023 and 2022 was \$8.7 million and \$10.2 million, respectively, and is classified as Accrued compensation and benefits expenses in the consolidated balance sheets.

Performance-Based Awards

The table below summarizes activity related to the Company's performance-based awards for the years ended December 31, 2023, 2022 and 2021:

	Equity-Classified Equity-Settled Restricted Stock		Equity-Classified Equity-Settled Restricted Stock Units	
	Number of Shares	Weighted Average Grant Date Fair Value Per Share	Number of Shares	Weighted Average Grant Date Fair Value Per Share
Unvested performance-based awards outstanding as of January 1, 2021	9	\$ 165.87	21	\$ 227.16
Awards granted	—	\$ —	8	\$ 574.98
Awards vested	—	\$ —	(4)	\$ 177.81
Awards forfeited	—	\$ —	(2)	\$ 334.78
Unvested performance-based awards outstanding as of December 31, 2021	9	\$ 165.87	23	\$ 339.69
Awards granted	—	\$ —	6	\$ 418.26
Awards vested	—	\$ —	(9)	\$ 238.96
Awards forfeited	—	\$ —	(5)	\$ 377.87
Unvested performance-based awards outstanding as of December 31, 2022	9	\$ 165.87	15	\$ 412.60
Awards granted	—	\$ —	6	\$ 258.19
Awards vested	(9)	\$ 165.87	(7)	\$ 229.98
Awards forfeited	—	\$ —	(1)	\$ 363.93
Unvested performance-based awards outstanding as of December 31, 2023	—	\$ —	13	\$ 441.87

As of December 31, 2023, \$3.1 million of total remaining unrecognized stock-based compensation cost related to performance-based equity-classified RSUs is expected to be recognized over the weighted average remaining requisite service period of 2.0 years.

The fair value of vested performance-based awards (measured at the vesting date) for the years ended December 31, 2023, 2022 and 2021 was as follows:

	For the Years Ended December 31,		
	2023	2022	2021
Equity-classified equity-settled			
Restricted stock	\$ 2,237	\$ —	\$ —
Restricted stock units	\$ 1,581	\$ 2,914	\$ 2,215
Total fair value of vested performance-based awards	\$ 3,818	\$ 2,914	\$ 2,215

Employee Stock Purchase Plan

The ESPP enables eligible employees to purchase shares of EPAM's common stock at a discount at the end of each designated offering period, which occurs every six months in April and November. The Company recognizes compensation expense related to shares issued pursuant to the ESPP on a straight-line basis over the six-months offering period. The Company uses the Black-Scholes option pricing model to calculate the fair value of shares issued under the ESPP. The Black-Scholes model relies on a number of key assumptions to calculate estimated fair values. The model incorporated the following weighted average assumptions for the years ended December 31, 2023, 2022 and 2021:

	For the Years Ended December 31,		
	2023	2022	2021
Expected volatility	48.0 %	86.8 %	23.1 %
Expected term (in years)	0.50	0.50	0.50
Risk-free interest rate	5.3 %	3.0 %	0.1 %
Expected dividends	— %	— %	— %

Expected volatility is based on the historical volatility of the Company's stock price. The expected term represents the purchase period for the ESPP. The risk-free rate is based on the U.S. Treasury yield curve for the period equal to the expected term in effect at the time of grant. The Company has not declared or paid any dividends on its common stock and does not anticipate paying any dividends in the foreseeable future.

During the year ended December 31, 2023, the weighted average price per share was \$248.23 and the weighted average grant-date fair value per share was \$69.74. During the year ended December 31, 2023, the ESPP participants purchased 173 thousand shares of common stock under the ESPP and the Company recognized \$12.6 million of stock-based compensation expense related to the ESPP. As of December 31, 2023, total unrecognized stock-based compensation cost related to the ESPP was \$3.7 million, which is expected to be recognized over a period of 0.33 years.

During the year ended December 31, 2022, the weighted average price per share was \$315.60 and the weighted average grant-date fair value per share was \$119.76. During the year ended December 31, 2022, the ESPP participants purchased 120 thousand shares of common stock under the ESPP and the Company recognized \$13.9 million of stock-based compensation expense related to the ESPP.

During the year ended December 31, 2021, the weighted average price per share was \$659.65 and the weighted average grant-date fair value per share was \$141.86. As of December 31, 2021, no purchases were made under the ESPP. For the year ended December 31, 2021, the Company recognized \$1.2 million of stock-based compensation expense related to the ESPP.

Commitments for Future Equity Awards

In connection with the Company's acquisitions of businesses as discussed in Note 3 "Acquisitions", EPAM enters into agreements that contractually commit it to granting equity awards at future dates. The agreements are unique to each acquisition and terms vary, including specifying either the number of future awards to be issued or a monetary value that will be settled with equity awards valued at future stock prices.

As of December 31, 2023, the Company has commitments to grant up to \$15.5 million of equity awards with the number of awards to be determined based on future stock prices. There is a service-based vesting requirement associated with these awards and certain of these awards contain performance criteria that will determine the amount of future awards to be issued. These awards are considered granted for accounting purposes. In determining the expense, the Company adjusts the expected settlement based on the probability of achievement of such performance criteria. Related to these awards, the amount of stock-based compensation expense recorded in the consolidated statements of income for the years ended December 31, 2023, 2022 and 2021 was not material.

As of December 31, 2023, the Company has issued 10 thousand performance-based equity-classified RSUs which are not considered granted for accounting purposes as the future vesting conditions have not yet been determined.

Share Repurchases

On February 13, 2023, the Board of Directors authorized a share repurchase program for up to \$500.0 million of the Company's outstanding common stock. EPAM may repurchase shares of its common stock on a discretionary basis from time to time through open market purchases, privately negotiated transactions or other means, including through the use of trading plans intended to qualify under Rule 10b5-1 under the Securities Exchange Act of 1934, as amended. The timing and total amount of stock repurchases will depend upon business, economic and market conditions, corporate and regulatory requirements, prevailing stock prices, and other considerations. The share repurchase program has a term of 24 months, may be suspended or discontinued at any time, and does not obligate the company to acquire any amount of common stock.

During the year ended December 31, 2023, the Company repurchased 686 thousand shares of its common stock for \$164.9 million in cash. All of the repurchased shares have been retired. As of December 31, 2023, a remaining balance of \$335.1 million was available for purchases of the Company's common stock under the share repurchase program authorized by the Company's Board of Directors.

15. INCOME TAXES

Income Before Provision for Income Taxes

Income before provision for income taxes based on geographic location is disclosed in the table below:

	For the Years Ended December 31,		
	2023	2022	2021
Income before provision for income taxes:			
United States	\$ 210,875	\$ 78,564	\$ 128,498
Foreign	325,710	428,694	404,894
Total	\$ 536,585	\$ 507,258	\$ 533,392

Provision for Income Taxes

The provision for income taxes consists of the following:

	For the Years Ended December 31,		
	2023	2022	2021
Current			
Federal	\$ 54,763	\$ 20,044	\$ 22,742
State	15,922	10,116	6,735
Foreign	86,012	99,847	69,162
Deferred			
Federal	(20,519)	(26,379)	(40,421)
State	(5,206)	(3,483)	(2,576)
Foreign	(11,470)	(12,303)	(3,902)
Total	\$ 119,502	\$ 87,842	\$ 51,740

As part of the U.S. Tax Act, as determined as of December 31, 2017, the Company was required to make annual installment payments for the one-time transition tax on accumulated foreign subsidiary earnings not previously subject to U.S. income tax at a rate of 15.5% to the extent of foreign cash and certain other net current assets and 8.0% on the remaining earnings. As of December 31, 2023, the remaining unpaid balance of this one-time transition tax was \$25.6 million to be paid in annual installments with the final payment due in 2025.

As of December 31, 2023, the Company had approximately \$1.563 billion of accumulated undistributed foreign earnings that are expected to be indefinitely reinvested. Due to the enactment of the U.S. Tax Act and the one-time transition tax on accumulated foreign subsidiary earnings, these accumulated foreign earnings are no longer expected to be subject to U.S. federal income tax if repatriated but could be subject to state and foreign income and withholding taxes.

Effective Tax Rate Reconciliation

The reconciliation of the provision for income taxes at the federal statutory income tax rate to the Company's effective income tax rate is as follows:

	For the Years Ended December 31,		
	2023	2022	2021
Provision for income taxes at federal statutory rate	\$ 112,690	\$ 106,514	\$ 112,016
Increase/(decrease) in taxes resulting from:			
GILTI and BEAT U.S. taxes	391	355	229
Excess tax benefits relating to stock-based compensation	(19,829)	(35,119)	(71,628)
Foreign tax expense and tax rate differential	5,208	4,902	(206)
Effect of permanent differences	4,210	7,812	4,756
State taxes, net of federal benefit	12,347	9,323	9,192
Stock-based compensation expense	5,869	3,869	1,102
Impact of election to change entity classification	(2,109)	(8,264)	—
Tax credits	(1,824)	(2,876)	(4,100)
Other	2,549	1,326	379
Provision for income taxes	\$ 119,502	\$ 87,842	\$ 51,740

The Company's worldwide effective tax rate for the years ended December 31, 2023, 2022 and 2021 was 22.3%, 17.3% and 9.7%, respectively.

The provision for income taxes in the year ended December 31, 2023 was unfavorably impacted by a charge of \$2.4 million reflecting an increase in U.S. state tax and a charge of \$3.2 million for losses in certain foreign jurisdictions with no corresponding tax benefit. In addition, the Company recorded excess tax benefits upon vesting or exercise of stock-based awards of \$19.8 million, \$35.1 million and \$71.6 million during the years ended December 31, 2023, 2022 and 2021, respectively.

In Belarus, member technology companies of High-Technologies Park, including the Company's local subsidiary, have a full exemption from Belarus income tax on qualifying income through January 2049. However, beginning February 1, 2018, the earnings of the Company's Belarus local subsidiary became subject to U.S. income taxation due to the Company's decision to change the tax status of the subsidiary. There was no aggregate dollar benefit derived or impact on diluted net income per share from this tax holiday for the years ended December 31, 2023, 2022 and 2021.

Deferred Income Taxes

Deferred income taxes reflect the net effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes.

Significant components of the Company's deferred tax assets and liabilities are as follows:

	As of December 31, 2023	As of December 31, 2022
Deferred tax assets:		
Property and equipment	\$ 13,359	\$ 11,587
Accrued expenses	77,757	87,816
Accrued sales discounts	11,148	9,185
Stock-based compensation	36,488	33,078
Operating lease liabilities	40,549	43,662
R&D capitalization	77,601	36,915
Deferred consideration	13,762	14,030
Foreign currency exchange	2,688	11,284
Other	27,149	19,955
Deferred tax assets	\$ 300,501	\$ 267,512
Less: valuation allowance	(7,622)	(6,728)
Total deferred tax assets	\$ 292,879	\$ 260,784
Deferred tax liabilities:		
Property and equipment	\$ 13,590	\$ 15,324
Intangible assets	27,914	24,523
Operating lease right-of-use assets	39,551	42,211
U.S. taxation of foreign subsidiaries	13,955	11,465
Other	8,711	7,232
Total deferred tax liabilities	\$ 103,721	\$ 100,755
Net deferred tax assets	\$ 189,158	\$ 160,029

As of December 31, 2023 and 2022, the Company classified \$8.7 million and \$12.8 million, respectively, of deferred tax liabilities as Other noncurrent liabilities in the consolidated balance sheets.

Included in the stock-based compensation expense deferred tax asset at December 31, 2023 and 2022 is \$3.9 million and \$4.6 million, respectively, that is related to acquisitions and is amortized for tax purposes over a 10 to 15-year period.

As of December 31, 2023, the Company's domestic and foreign net operating loss ("NOL") carryforwards for income tax purposes were approximately \$1.8 million and \$54.8 million, respectively. If not utilized, the domestic NOL carryforwards will begin to expire in 2024. The foreign NOL carryforwards may be carried forward indefinitely, with the exception of \$8.9 million that will begin to expire on various dates between 2024-2030 if not used. The Company maintains a valuation allowance primarily related to the net operating loss carryforwards in certain foreign jurisdictions that the Company believes are not likely to be realized, which totaled \$35.0 million as of December 31, 2023.

Unrecognized Tax Benefits

As of December 31, 2023 and 2022, the total amount of gross unrecognized tax benefits was \$11.5 million and \$7.9 million, respectively. These amounts represent the amount of unrecognized tax benefits that, if recognized, would favorably affect the effective tax rate in future periods and are included in Income taxes payable, noncurrent within the consolidated balance sheets.

The Company's policy is to recognize interest and penalties related to uncertain tax positions as a component of its provision for income taxes. As of December 31, 2023 and 2022, the Company accrued \$1.5 million and \$0.7 million respectively, of interest and penalties resulting from such unrecognized tax benefits.

A reconciliation of the beginning and ending balances of the gross unrecognized tax benefits changes for the years ended December 31, 2023, December 31, 2022 and December 31, 2021 are as follows:

	For the Years Ended December 31,		
	2023	2022	2021
Beginning Balance	\$ 7,865	\$ 8,155	\$ 3,317
Increases in tax positions from current year	3,307	4,739	5,310
Increases in tax positions from acquisitions	—	393	—
Increases in tax positions from prior years	716	2,447	1,350
Decreases in tax positions from prior years	(47)	(6,945)	—
Decreases due to lapse of statute of limitations	(438)	(1,121)	(1,298)
Currency	68	197	(524)
Ending Balance	\$ 11,471	\$ 7,865	\$ 8,155

There were no tax positions for which it was reasonably possible that unrecognized tax benefits will significantly increase or decrease within twelve months of the reporting date.

The Company is subject to taxation in the United States and various states and foreign jurisdictions including Germany, Ukraine, the United Kingdom, Canada, Switzerland, Netherlands, Poland, India, and Mexico. With few exceptions, as of December 31, 2023, the Company is no longer subject to U.S. federal, state, local or foreign examinations by tax authorities for years before 2019.

16. EARNINGS PER SHARE

Basic earnings per share is computed by dividing net income available to common shareholders by the weighted-average number of shares of common stock outstanding during the period. For purposes of computing basic earnings per share, any unvested shares of restricted stock that have been issued by the Company and are contingently returnable to the Company are excluded from the weighted-average number of shares of common stock outstanding during the period. Diluted earnings per share is computed by dividing net income available to common shareholders by the weighted-average number of shares of common stock outstanding during the period increased to include the number of additional shares of common stock that would have been outstanding if the potentially dilutive securities had been issued. Potentially dilutive securities include outstanding stock options, unvested restricted stock, unvested equity-settled RSUs and the stock to be issued under the Company's ESPP. The dilutive effect of potentially dilutive securities is reflected in diluted earnings per share by application of the treasury stock method.

The following table sets forth the computation of basic and diluted earnings per share of common stock as follows:

	For the Years Ended December 31,		
	2023	2022	2021
Numerator for basic and diluted earnings per share:			
Net income	\$ 417,083	\$ 419,416	\$ 481,652
Numerator for basic and diluted earnings per share	\$ 417,083	\$ 419,416	\$ 481,652
Denominator:			
Weighted average common shares for basic earnings per share	57,829	57,291	56,511
Net effect of dilutive stock options, restricted stock units, restricted stock awards and stock issuable under the ESPP	1,256	1,878	2,553
Weighted average common shares for diluted earnings per share	59,085	59,169	59,064
Net Income per share:			
Basic	\$ 7.21	\$ 7.32	\$ 8.52
Diluted	\$ 7.06	\$ 7.09	\$ 8.15

The number of shares underlying equity-based awards that were excluded from the calculation of diluted earnings per share as their effect would be anti-dilutive was 415 thousand, 264 thousand and 32 thousand for the years ended December 31, 2023, 2022 and 2021, respectively.

Net income attributable to noncontrolling interests recognized in connection with the acquisition of Emakina on November 3, 2021 was immaterial for the years ended December 31, 2023, 2022 and 2021.

17. COMMITMENTS AND CONTINGENCIES

Indemnification Obligations — In the normal course of business, the Company is a party to a variety of agreements under which it may be obligated to indemnify the other party for certain matters. These obligations typically arise in contracts where the Company customarily agrees to hold the other party harmless against losses arising from a breach of representations or covenants for certain matters, infringement of third-party intellectual property rights, data privacy violations, and certain tortious conduct in the course of providing services. The duration of these indemnifications varies, and in certain cases, is indefinite.

The Company is unable to reasonably estimate the maximum potential amount of future payments under these or similar agreements due to the unique facts and circumstances of each agreement and the fact that certain indemnifications provide for no limitation to the maximum potential future payments under the indemnification. Management is not aware of any such matters that would have a material effect on the consolidated financial statements of the Company.

Litigation — From time to time, the Company is involved in litigation, claims or other contingencies arising in the ordinary course of business. The Company accrues a liability when a loss is considered probable and the amount can be reasonably estimated. When a material loss contingency is reasonably possible but not probable, the Company does not record a liability, but instead discloses the nature and the amount of the claim, and an estimate of the loss or range of loss, if such an estimate can be made. Legal fees are expensed as incurred. In the opinion of management, the outcome of any existing claims and legal or regulatory proceedings, if decided adversely, is not expected to have a material effect on the Company's business, financial condition, results of operations or cash flows.

Ukraine Humanitarian Commitment — On March 4, 2022, EPAM announced that it has established a \$100.0 million humanitarian commitment to support its employees in Ukraine and their families. See Note 2 "Impact of the Invasion of Ukraine" for more information regarding commitments to humanitarian aid for Ukraine.

Deferred Consideration — During the year ended December 31, 2022, the Company purchased software licenses for use in the regular course of business in exchange for an upfront payment and fixed, subsequent annual payments due over the next 4 years. This agreement was modified during the year ended December 31, 2023. As of December 31, 2023, the undiscounted deferred consideration amounts owed totaled approximately \$51.4 million and are expected to be paid as follows: \$18.3 million in 2024, \$16.6 million in 2025, and \$16.5 million in 2026. See Note 7 "Property and Equipment, Net" for more information regarding the purchase of software licenses.

Contractual Commitment — On March 31, 2023, the Company entered into a 5-year agreement for cloud services through which it committed to spending at least \$75.0 million over the term of the agreement. The Company has the ability to cancel the commitment whereby it would incur a cancellation penalty of 20% of the remaining contractual commitment.

18. SEGMENT INFORMATION

The Company determines its business segments and reports segment information in accordance with how the Company's chief operating decision maker ("CODM") organizes the segments to evaluate performance, allocate resources and make business decisions. Segment results are based on the segment's revenues and operating profit, where segment operating profit is defined as income from operations before unallocated costs. Expenses included in segment operating profit consist principally of direct selling and delivery costs as well as an allocation of certain shared services expenses. Certain corporate expenses are not allocated to specific segments as these expenses are not controllable at the segment level. Such expenses include certain types of professional fees, certain taxes included in operating expenses, compensation to non-employee directors and certain other general and administrative expenses, including compensation of specific groups of non-production employees. In addition, the Company does not allocate amortization of intangible assets acquired through business combinations, goodwill and other asset impairment charges, stock-based compensation expenses, acquisition-related costs and certain other one-time charges and benefits. These unallocated amounts are combined with total segment operating profit to arrive at consolidated income from operations as reported below in the reconciliation of segment operating profit to consolidated income before provision for income taxes. Additionally, management has determined that it is not practical to allocate identifiable assets by segment since such assets are used interchangeably among the segments.

The Company manages its business primarily based on the managerial responsibility for its client base and market. As managerial responsibility for a particular customer relationship generally correlates with the customer's geographic location, there is a high degree of similarity between customer locations and the geographic boundaries of the Company's reportable segments. In some cases, managerial responsibility for a particular customer is assigned to a management team in another region and is usually based on the strength of the relationship between customer executives and particular members of EPAM's senior management team. In such cases, the customer's activity would be reported through the management team's reportable segment.

On July 26, 2023, the Company completed the sale of its remaining holdings in Russia to a third party. As a result of this sale, the Company no longer has operations associated with this segment. See Note 2 "Impact of the Invasion of Ukraine" for more information.

Revenues from external customers and operating profit, before unallocated expenses, by reportable segments were as follows:

	For the Years Ended December 31,		
	2023	2022	2021
Segment revenues:			
North America	\$ 2,765,022	\$ 2,898,554	\$ 2,242,248
Europe	1,909,443	1,853,056	1,350,484
Russia	16,075	73,088	165,412
Total revenues	\$ 4,690,540	\$ 4,824,698	\$ 3,758,144
Segment operating profit/(loss):			
North America	\$ 520,945	\$ 589,412	\$ 462,798
Europe	250,634	223,276	233,727
Russia	(5,866)	(13,460)	32,547
Total segment operating profit	\$ 765,713	\$ 799,228	\$ 729,072

Intersegment transactions were excluded from the above on the basis that they are neither included in the measure of a segment's profit and loss results, nor considered by the CODM during the review of segment results.

There were no customers individually exceeding 10% of our total segment revenues for the years ended December 31, 2023, 2022 and 2021.

Reconciliation of segment operating profit to consolidated income before provision for income taxes is presented below:

	For the Years Ended December 31,		
	2023	2022	2021
Total segment operating profit:	\$ 765,713	\$ 799,228	\$ 729,072
Unallocated costs:			
Stock-based compensation expense	(147,730)	(99,909)	(111,655)
Amortization of purchased intangibles	(22,717)	(22,223)	(17,646)
Other acquisition-related expenses	(2,723)	(1,537)	(6,397)
Loss on sale of business	(25,922)	—	—
Other unallocated costs	(65,382)	(102,593)	(51,058)
Income from operations	501,239	572,966	542,316
Interest and other income/(loss), net	51,124	10,025	(1,727)
Foreign exchange loss	(15,778)	(75,733)	(7,197)
Income before provision for income taxes	\$ 536,585	\$ 507,258	\$ 533,392

Geographic Area Information

Long-lived assets include property and equipment, net of accumulated depreciation and amortization, and management has determined that it is not practical to allocate these assets by segment since such assets are used interchangeably among the segments. Physical locations and values of the Company's long-lived assets are presented below:

	As of December 31, 2023	As of December 31, 2022	As of December 31, 2021
Ukraine	\$ 62,653	\$ 70,183	\$ 78,289
Belarus	49,875	57,311	75,422
United States	42,510	68,804	14,843
Poland	15,057	14,685	8,240
India	12,735	8,506	9,459
Hungary	6,683	8,552	5,339
Russia	—	—	16,611
Other	45,540	45,307	28,011
Total	\$ 235,053	\$ 273,348	\$ 236,214

See Note 2 "Impact of the Invasion of Ukraine" for more information regarding the Company's decisions to no longer serve customers in Russia, impairment of long-lived assets in Russia and the sale of its holdings in Russia.

The table below presents the Company's revenues by customer location for the years ended December 31, 2023, 2022 and 2021:

	For the Years Ended December 31,		
	2023	2022	2021
United States	\$ 2,633,730	\$ 2,761,050	\$ 2,125,301
United Kingdom	585,172	619,305	474,941
Switzerland	367,121	323,424	271,208
Netherlands	236,292	215,444	154,816
Germany	178,492	161,758	113,727
Canada	97,983	114,910	96,646
Russia	13,290	64,745	155,186
Other locations	578,460	564,062	366,319
Revenues	\$ 4,690,540	\$ 4,824,698	\$ 3,758,144

19. ACCUMULATED OTHER COMPREHENSIVE LOSS

The following table summarizes the changes in the accumulated balances for each component of accumulated other comprehensive loss:

	For the Years Ended December 31,		
	2023	2022	2021
Foreign currency translation			
Beginning balance	\$ (101,780)	\$ (52,747)	\$ (28,168)
Foreign currency translation	45,035	(45,295)	(29,323)
Net loss reclassified into Loss on sale of business	23,931	—	—
Income tax (expense)/benefit	(10,787)	(3,738)	4,744
Foreign currency translation, net of tax	58,179	(49,033)	(24,579)
Ending balance	\$ (43,601)	\$ (101,780)	\$ (52,747)
Cash flow hedging instruments			
Beginning balance	\$ 8,306	\$ (3,417)	\$ 3,642
Unrealized gain/(loss) in fair value	25,352	(49,233)	(13,781)
Net (gain)/ loss reclassified into Cost of revenues (exclusive of depreciation and amortization)	(25,695)	20,331	4,649
Net (gain)/ loss reclassified into Foreign exchange loss	(234)	44,067	—
Income tax benefit/(expense)	90	(3,442)	2,073
Cash flow hedging instruments, net of tax	(487)	11,723	(7,059)
Ending balance ⁽¹⁾	\$ 7,819	\$ 8,306	\$ (3,417)
Defined benefit plans			
Beginning balance	\$ (1,847)	\$ 1,957	\$ (986)
Actuarial (losses)/gains	(1,856)	(4,892)	3,805
Income tax benefit/(expense)	445	1,088	(862)
Defined benefit plans, net of tax	(1,411)	(3,804)	2,943
Ending balance	\$ (3,258)	\$ (1,847)	\$ 1,957
Accumulated other comprehensive loss	\$ (39,040)	\$ (95,321)	\$ (54,207)

(1) As of December 31, 2023, the ending balance of net unrealized gain related to derivatives designated as cash flow hedges is expected to be reclassified into Cost of revenues (exclusive of depreciation and amortization) in the next twelve months.

SCHEDULE II
VALUATION AND QUALIFYING ACCOUNTS
FOR THE YEARS ENDED DECEMBER 31, 2023, 2022 AND 2021
(In thousands)

	Balance at Beginning of Year	Additions	Deductions/ Write offs	Balance at End of Year
Year Ended December 31, 2023				
Allowance for doubtful accounts for trade receivables and contract assets	\$ 15,310	3,948	(7,394)	\$ 11,864
Valuation allowance on deferred tax assets	\$ 6,728	2,210	(1,316)	\$ 7,622
Year Ended December 31, 2022				
Allowance for doubtful accounts for trade receivables and contract assets	\$ 5,521	14,419	(4,630)	\$ 15,310
Valuation allowance on deferred tax assets	\$ 4,537	2,191	—	\$ 6,728
Year Ended December 31, 2021				
Allowance for doubtful accounts for trade receivables and contract assets	\$ 4,886	3,888	(3,253)	\$ 5,521
Valuation allowance on deferred tax assets	\$ 5,485	—	(948)	\$ 4,537

Description of the Registrant's Securities Registered Under Section 12 of the Securities Exchange Act of 1934

The following description is a summary of the material terms of the EPAM Systems, Inc. (referred to as “we,” “us,” and “our”) Third Amended and Restated Certificate of Incorporation (“Certificate”), Amended and Restated Bylaws (“Bylaws”), and applicable provisions of law. The summary is not complete and is subject to, and is qualified in its entirety by, express reference to the provisions of our Certificate and Bylaws, each of which is filed as an exhibit to, or incorporated by reference in, the Annual Report on Form 10-K of which this Exhibit 4.4 is a part. Unless a different date is referenced elsewhere herein, this summary is effective as of the end of the period covered by the Annual Report on Form 10-K with which this exhibit is filed or incorporated by reference.

General

Our authorized capital stock consists of 160,000,000 shares of common stock, par value \$.001 per share, and 40,000,000 shares of preferred stock, par value \$.001 per share. Our common stock is registered under Section 12 of the Securities Exchange Act of 1934.

Common Stock

The number of shares of common stock outstanding, the date that such number of shares were outstanding, and the stock exchange where our common stock is traded are set forth on the cover page of the Annual Report on Form 10-K of which this Exhibit 4.4 is a part. The number of stockholders of record is set forth in “Part II., Item 5. Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities” of the Annual Report on Form 10-K of which this Exhibit 4.4 is a part.

The holders of common stock are entitled to one vote per share on all matters which stockholders generally are entitled to vote, except on matters relating solely to terms of preferred stock. Subject to preferences that may be applicable to any outstanding preferred stock, the holders of common stock are entitled to receive ratably such dividends, if any, as may be declared from time to time by the board of directors out of funds legally available therefor.

In the event of our liquidation, dissolution or winding up, the holders of common stock are entitled to share ratably in all assets remaining after payment of liabilities, subject to prior distribution rights of preferred stock, if any, then outstanding.

The common stock has no preemptive or conversion rights or other subscription rights. There are no redemption or sinking fund provisions applicable to the common stock. All outstanding shares of common stock are fully paid and non-assessable.

Transfer Agent and Registrar

The name and address of our transfer agent and registrar for our common stock is Equiniti Trust Company, LLC. The transfer agent’s address is 48 Wall Street, Floor 23, New York, New York 10005 and the telephone number is (800) 937-5449.

Preferred Stock

Our board of directors has the authority to issue preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions thereof, including dividend rights, dividend rates, conversion rights, voting rights, terms of redemption, redemption prices, liquidation preferences and the number of shares constituting any series or the designation of such series, without further vote or action by the stockholders.

The issuance of preferred stock may have the effect of delaying, deferring or preventing a change in control without further action by the stockholders and may adversely affect the voting and other rights of the holders of common stock. As of the date of Annual Report on Form 10-K of which this Exhibit 4.4 is a part, no shares of preferred stock are outstanding.

Election and Removal of Directors

Our board of directors consists of not less than 3 directors, excluding any directors elected by holders of preferred stock pursuant to the resolution or resolutions adopted by the board pursuant to the issuance of preferred stock, if any. The exact number of directors will be fixed from time to time by resolution of the board. Our board of directors will be divided into three classes. The directors in each class will serve for a three-year term, one class being elected each year by our stockholders. This system of electing and removing directors may discourage a third party from making a tender offer or otherwise attempting to

obtain control of us because it generally makes it more difficult for stockholders to replace a majority of our directors. Our Certificate and Bylaws do not provide for cumulative voting in the election of directors.

Limits on Written Consents

Any action required or permitted to be taken by the stockholders must be taken at a duly called annual or special meeting of stockholders and may not be taken by any consent in writing in lieu of a meeting of such stockholders.

Stockholder Meetings

Special meetings of the stockholders may be called at any time only by the board of directors acting pursuant to a resolution adopted by a majority of the whole board, subject to the rights of the holders of any series of preferred stock.

Amendments to Our Governing Documents

Generally, the amendment of our Certificate requires approval by our board of directors and a majority vote of stockholders. However, certain material amendments (including amendments with respect to provisions governing board composition, actions by written consent, and special meetings) require the approval of at least $66\frac{2}{3}\%$ of the votes entitled to be cast by the outstanding capital stock in the elections of our board of directors. Any amendment to our Bylaws requires the approval of either a majority of our board of directors or approval of at least $66\frac{2}{3}\%$ of the votes entitled to be cast by the holders of our outstanding capital stock in elections of our board of directors.

Requirements for Advance Notification of Stockholder Nominations and Proposals

Our Bylaws establish advance notice procedures with respect to stockholder proposals and nomination of candidates for election as directors.

Limitation of Liability of Directors and Officers

Our Certificate provides that no director will be personally liable to us or our stockholders for monetary damages for breach of fiduciary duty as a director, except as required by applicable Delaware law.

As a result, neither we nor our stockholders have the right, through stockholders' derivative suits on our behalf, to recover monetary damages against a director for breach of fiduciary duty as a director, including breaches resulting from grossly negligent behavior, except as permitted by applicable Delaware law.

Our Certificate provides that, to the fullest extent permitted by Delaware law, we will indemnify any officer or director of our company against all damages, claims and liabilities arising out of the fact that the person is or was our director or officer, or served any other enterprise at our request as a director or officer. Amending this provision will not reduce our indemnification obligations relating to actions taken before an amendment.

Anti-takeover Effects of Some Provisions

Some provisions of our Certificate and Bylaws could make the following more difficult:

- acquisition of control of us by means of a proxy contest or otherwise, or
- removal of our incumbent officers and directors.

These provisions, as well as our ability to issue preferred stock, are designed to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to encourage persons seeking to acquire control of us to first negotiate with our board of directors. We believe that the benefits of increased protection give us the potential ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure us, and that the benefits of this increased protection outweigh the disadvantages of discouraging those proposals, because negotiation of those proposals could result in an improvement of their terms.

Delaware Business Combination Statute

We are subject to Section 203 of the Delaware General Corporation Law ("DGCL"), which regulates corporate acquisitions. Section 203 generally prevents an "interested stockholder," which is defined generally as a person owning 15% or more of a corporation's voting stock, or any affiliate or associate of that person, from engaging in a broad range of "business combinations" with the corporation for three years after becoming an interested stockholder. Generally, a business combination includes a merger, asset or stock sale, or other transaction resulting in a financial benefit to the interested

stockholder. Unless another exception applies, an interested stockholder may engage in a business combination under the following conditions:

- the board of directors of the corporation had previously approved either the business combination or the transaction that resulted in the stockholder's becoming an interested stockholder;
- upon completion of the transaction that resulted in the stockholder's becoming an interested stockholder, that person owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, other than statutorily excluded shares of common stock; or
- following the transaction in which that person became an interested stockholder, the business combination is approved by the board of directors of the corporation and holders of at least two-thirds of the outstanding voting stock not owned by the interested stockholder.

Under Section 203, the restrictions described above also do not apply to specific business combinations proposed by an interested stockholder following the announcement or notification of designated extraordinary transactions involving the corporation and a person who had not been an interested stockholder during the previous three years or who became an interested stockholder with the approval of a majority of the corporation's directors, if such extraordinary transaction is approved or not opposed by a majority of the directors who were directors prior to any person becoming an interested stockholder during the previous three years or were recommended for election or elected to succeed such directors by a majority of such directors.

Section 203 may make it more difficult for a person who would be an interested stockholder to effect various business combinations with a corporation for a three-year period. Section 203 also may have the effect of preventing changes in our management and could make it more difficult to accomplish transactions, which our stockholders may otherwise deem to be in their best interests.

Forum Selection Clause

Under our Certificate, the Court of Chancery of the State of Delaware is exclusive forum for any derivative action or proceeding brought on our behalf; any action asserting that any director, officer or other employee breached his or her fiduciary duty owed to us or our stockholders; any action asserting a claim arising pursuant to any provision of the DGCL; or any action asserting a claim governed by Delaware's internal affairs doctrine.

EPAM SYSTEMS, INC.

Amended Non-Employee Director Compensation Policy

[Adopted January 22, 2012; Amended December 16, 2013; February 24, 2015 (effective January 1, 2015); April 16, 2015; September 14, 2016; December 14, 2016 (effective January 1, 2017); April 11, 2017; December 11, 2018 (effective January 1, 2019); February 11, 2021 (effective January 1, 2021); December 7, 2021 (effective January 1, 2022); January 18, 2023 (effective January 1, 2023); December 6, 2023 (effective January 1, 2024)]

Unless and until the Board resolves otherwise or as otherwise agreed between the Company and the Board, each member of the Board of Directors (the “**Board**”) of EPAM Systems, Inc. (the “**Company**”) that is not an employee of the Company or any of its subsidiaries (each, a “**Non-Employee Director**”) shall be entitled to receive the compensation set forth below during the term of his or her service on the Board. Capitalized terms used but not defined in this policy shall have the meanings set forth in the Company’s 2022 Amended and Restated Non-Employee Directors Compensation Plan (as amended from time to time, the “**Plan**”) or in the Company’s 2017 Non-Employee Directors Deferral Plan (the “**Deferral Plan**”), as the case may be.

Annual Cash Retainers

Frequency and Pro-Ration of Payments: Each of the retainer payments described below shall be payable in cash in arrears in equal quarterly installments within 10 days following each March 31, June 30, September 30 and December 31 (each such payment date, a “**Quarterly Payment Date**”) in respect of the calendar quarter that includes such Quarterly Payment Date, or, at the Non-Employee Director’s election given by written notice to the Company no later than March 15 of any calendar year, in one cash payment in arrears on December 31 (or if such date is not a business day, the business day immediately preceding such date) (such payment date, an “**Annual Payment Date**”) in respect of the calendar year that includes such Annual Payment Date. Any Non-Employee Director who becomes eligible for any of the following retainer payments on a date that is not the first day of a calendar quarter (or year) shall receive a pro-rated Retainer for his or her service in the applicable role on the Board for such quarter (or year) based on the number of days of such service during such quarter (or year).

Service as Non-Employee Director: Each Non-Employee Director shall receive an annual retainer (a “**Retainer**”) in the amount of \$65,000 payable in cash in arrears.

Service as Lead Independent Director: The Non-Employee Director who serves as Lead Independent Director of the Board shall receive an additional annual retainer in the amount of \$35,000 payable in cash in arrears.

Service as a Committee Member: Each Non-Employee Director who serves as a member (but not as a Chairperson) of one or more of the Audit, Compensation or Nominating and Corporate Governance Committees (each, a “**Committee**”) of the Board shall receive an additional annual retainer in the amount of \$13,000, \$10,000 and/or \$8,000 for his or her service on each such Committee, respectively, payable in cash in arrears.

Service as Chairperson of a Committee of the Board: Any Non-Employee Director who serves as a Chairperson of one or more of the Committees shall receive an additional annual retainer in the amount of \$25,000, \$20,000 and/or \$15,000 for his or her service as the Chairperson of one or more of the Audit, Compensation or Nominating and Corporate Governance Committees, respectively, payable in cash in arrears.

Additional Non-Employee Director Compensation

Any Non-Employee Director who attends more than ten (10) meetings of the Board, or more than ten (10) meetings of the same Committee on which such Non-Employee Director serves, in any calendar year shall receive an additional cash payment of \$2,000 for each such additional meeting thereof that such Non-Employee Director attends in person and \$1,000 for each such additional meeting that such Non-Employee Director attends telephonically.

Election to Receive Stock

A Non-Employee Director may elect to receive all or a portion of his or her Retainer in shares of Common Stock by executing and submitting to the Company's Corporate Secretary (the "**Secretary**") an election form, pursuant to a form provided by the Company, which indicates the percentage of such Retainer that such director elects to receive in shares. A Non-Employee Director who wishes to revoke or amend a previously submitted election form may do so by executing and submitting to the Secretary a subsequent election form, pursuant to a form provided by the Company. An election form, whether initial or subsequent, shall be effective only with respect to Quarterly Payment Dates (or if applicable, the Annual Payment Date) that occur after the date on which the Secretary receives such form.

As of each Quarterly Payment Date (or if so elected, the Annual Payment Date), a Non-Employee Director who has validly elected to receive all or a portion of his or her Retainer in shares of Common Stock will receive a number of shares of Common Stock determined by dividing the amount of the Retainer that otherwise would have been payable to such director in cash on such date by the closing price of a share of Common Stock on the day prior to such Quarterly Payment Date (or if so elected, the Annual Payment Date); *provided* that any fractional share shall be paid in cash.

Equity Grants

Initial Restricted Stock Unit Grants to Directors: On the date that a Non-Employee Director commences service on the Board, such director shall receive under the Plan an initial grant (the "**Initial Grant**") of Restricted Stock Units. The number of Restricted Stock Units awarded in the Initial Grant shall be determined by dividing \$100,000 by the 30 trading day average closing price ending on the last trading day before the grant date. Unless a Non-Employee Director elects otherwise pursuant to the Deferral Plan, the Initial Grant will vest 25% on each of the first four anniversaries of the grant date.

Annual Restricted Stock Unit Grants to Directors: On the date of the Company's annual public stockholder meeting, each Non-Employee Director who at such meeting is elected to serve on the Board or whose term is scheduled to continue at least through the date of the next such meeting shall receive under the Plan an annual grant (each, an "**Annual Grant**") of Restricted Stock Units. The number of Restricted Stock Units awarded in the Annual Grant shall be determined by dividing \$225,000 by the 30-trading day average closing price ending on the last trading day before the grant date. Any Non-Employee Director who commences service on the Board on a date other than the date of the Company's annual public stockholder meeting shall receive on such start date a pro-rated Annual Grant, with the number of Restricted Stock Units awarded in such grant determined by dividing (i) the product of the full value of the Annual Grant and a fraction, the numerator of which is 365 minus the number of days that have elapsed between the date of such meeting and such start date, and the denominator of which is 365, by (ii) the 30 trading day average closing price ending on the last trading day prior to such start date. Unless a Non-Employee Director elects otherwise pursuant to the Deferral Plan, each Annual Grant will vest 100% on the first anniversary of the grant date.

SUBSIDIARIES OF THE REGISTRANT

Entity	State or Country of Incorporation
EPAM Systems Argentina S.R.L.	Argentina
EPAM Systems LLC	Armenia
EPAM Systems (Australia) Pty. Ltd.	Australia
EPAM Systems Austria GmbH	Austria
Emakina Central & Eastern Europe GmbH	Austria
NetLounge Cloud Services GmbH	Austria
EPAM Information Corporate Systems FPUE	Belarus
EPAM Systems FLLC	Belarus
EPAM Systems Belgium	Belgium – branch of Netherlands
Emakina Group Srl	Belgium
EPAM Systems Belgium Srl	Belgium
The Reference NV BV (BE)	Belgium
EPAM Systems Brazil LTDA.	Brazil
J8 Corp	British Virgin Islands
EPAM Systems Bulgaria EOOD	Bulgaria
EPAM Systems Canada, Ltd.	Canada
EPAM Systems Chile SpA	Chile
EPAM Continuum (Shanghai) Co., Ltd.	China
Guangzhou EPAM Systems Co., Ltd.	China
EPAM Systems (Suzhou) Co., Ltd.	China
EPAM Systems (Shenzhen) Co. Ltd.	China
EPAM Systems (Suzhou) Co., Ltd.	China – Beijing Branch
EPAM Systems (Suzhou) Co., Ltd.	China – Chengdu Branch
Suzhou Evelo Technology Company Limited	China
EPAM Systems Colombia S.A.S.	Colombia
S4N Beyond S.A.S.	Colombia
S4N S.A.S.	Colombia
Seven4n S.A.S.	Colombia
EPAM Systems d.o.o.	Croatia
Emakina.HR d.o.o	Croatia
EPAM Systems (Cyprus) Limited	Cyprus
EPAM Systems (Czech Republic) s.r.o.	Czech Republic
EPAM Systems ApS	Denmark
EPAM Systems Dominicana SRL	Dominican Republic
EPAM Systems France	France
Emakina.FR SAS	France
EPAM Systems (Georgia) LLC	Georgia
EPAM Systems GmbH	Germany
test IO GmbH	Germany
COREtransform GmbH	Germany
Emakina.DE GmbH i.L.	Germany
EPAM Systems Hellas Single Member Private Company	Greece
EPAM Systems (Asia) Limited	Hong Kong
EPAM Systems (Hong Kong) Limited	Hong Kong

EPAM Systems Kft	Hungary
EPAM Systems India Private Limited	India
Emakina (INDIA) Private Limited	India
EPAM Systems (Ireland) Limited	Ireland
WhiteHat Cyber Labs Ltd.	Israel
Naya P.A.I. Technologies Ltd.	Israel
WhiteHat Ltd.	Israel
EPAM Systems Italy S.r.l.	Italy
EPAM Systems Japan G.K.	Japan
LLP EPAM Kazakhstan	Kazakhstan
EPAM Systems LLC (Kyrgyzstan)	Kyrgyzstan
EPAM Systems SIA	Latvia
Emakina Lb. S.A.L.	Lebanon
EPAM Sistemas, UAB	Lithuania
EPAM Sistemas, UAB "EPAM SISTEMOS" Kauno Branch	Lithuania-Kauno Branch
EPAM Systems (Malaysia) S.D.N.B.H.D.	Malaysia
JUST BI SDN BHD	Malaysia
Ricston Limited	Malta
EPAM Systems Mexico S. de R.L. de C.V.	Mexico
S4N Mexico S.C.	Mexico
EPAM Systems SRL	Moldova
EPAM Systems Montenegro d.o.o.	Montenegro
Just-BI BV	Netherlands
EPAM Systems Netherlands BV	Netherlands
Emakina.NL BV	Netherlands
S4N Panama S.A.	Panama
EPAM Systems Philippines	Philippines
EPAM Systems (Poland) sp z.o.o.	Poland
PolSource sp. z.o.o.	Poland
Emakina.PL Sp. z.o.o	Poland
EPAM Systems Portugal, Unipessoal Lda.	Portugal
EPAM Systems WLL	Qatar
Emakina Branch QFC	Qatar
Epam Systems International SRL	Romania
EPAM Systems Company Limited	Saudi Arabia
EPAM Systems d.o.o. Beograd	Serbia
Emakina.RS d.o.o. Novi Sad	Serbia
EPAM Systems PTE Ltd.	Singapore
Emakina Asia PTE Ltd	Singapore
EPAM System s.r.o.	Slovak Republic
Emakina ZA Proprietary Limited	South Africa
EPAM Systems Spain SL	Spain
Consultora de Telecomunicaciones Optiva Media, S.L.	Spain
EPAM Systems Nordic AB	Sweden
Emakina Commerce AB	Sweden
Emakina AB	Sweden

EPAM Systems (Switzerland) GmbH	Switzerland
COREtransform GmbH	Switzerland
Diamond Dogs Switzerland GmbH	Switzerland
Emakina.CH LABEL.ch SA	Switzerland
Emakina Bilgisayar Yazılım İnşaat Turizm Sanayi ve Ticaret A.Ş.	Turkey
Emakina Bilgisayar Yazılım İnşaat Turizm Sanayi ve Ticaret A.Ş. Ege Serbest Bölge Şubesi (Free-Zone Branch)	Turkey
Cloudcrazy Yazılım Danışmanlık Teknoloji Hiz. A.Ş.	Turkey
EPAM Systems Yazılım Geliştirme Ltd. Şti.	Turkey
EPAM Systems Turkey Yazılım Geliştirme Limited Şirketi İzmir Bilişim Vadisi Şubesi	Turkey
EPAM Systems Turkey Yazılım Geliştirme Limited Şirketi Antalya OSB Teknopark Şubesi	Turkey
EPAM Solutions LLC	Ukraine
EPAM Systems LLC	Ukraine
EPAM Digital LLC	Ukraine
Think Limited	United Kingdom
Ricston UK Limited	United Kingdom
EPAM Systems Ltd.	United Kingdom
PolSource Ltd.	United Kingdom
Great Fridays Limited	United Kingdom
COREtransform Ltd.	United Kingdom
Great Fridays, Inc.	Delaware Corp. USA
Alliance Consulting Global Holdings, Inc.	Delaware Corp. USA
PolSource Inc.	Nevada Corp. USA
Essentia Advisory Partners, LLC	Texas LLC USA
Alliance Global Services, LLC	Delaware LLC USA
Competentum-USA Ltd.	Delaware Corp. USA
ShareKnowledge Inc.	Delaware Corp. USA
EPAM DX, LLC	Delaware LLC USA
Continuum Innovation LLC	Delaware LLC USA
EPAM Upskill, LLC	Pennsylvania LLC USA
test IO, Inc.	Delaware Corp. USA
Naya P.A.I. Technologies Inc.	Delaware Corp. USA
Vested Development, Inc.	Delaware Corp. USA
S4N America Inc.	Washington Corp. USA
EPAM Systems LLC	New Jersey LLC USA
Alliance Global Services, Inc.	Delaware Corp. USA
Navigation Arts, Inc.	Delaware Corp. USA
EPAM Government Solutions, LLC	Delaware LLC USA
Continuum LLC	Massachusetts LLC USA
Emakina.US Inc.	New York Corp. USA
The Reference.US Inc.	New York Corp. USA
EPAM Global Campus, LLC	Delaware LLC USA
EPAM Software Engineering and Consultancy Services LLC – Dubai Branch	UAE

EPAM Systems FZ-LLC	UAE
COREtransform Consulting MEA Ltd.	UAE
Emakina FZ-LLC	UAE
Cloudworks Consulting FZ-LLC	UAE
Epam Software Engineering and Consultancy Services LLC	UAE
EPAM Systems Uruguay S.R.L	Uruguay
EPAM Systems FE LLC	Uzbekistan
LLC IT-PARK UNIVERSITY	Uzbekistan
EPAM Systems (Vietnam) Company Limited	Vietnam

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement No. 333-274842 on Form S-3 and Registration Statement Nos. 333-179409, 333-205421 and 333-259913 on Form S-8 of our reports dated February 22, 2024, relating to the financial statements of EPAM Systems, Inc. and the effectiveness of EPAM Systems, Inc.'s internal control over financial reporting appearing in this Annual Report on Form 10-K for the year ended December 31, 2023.

/s/ DELOITTE & TOUCHE LLP

Philadelphia, Pennsylvania
February 22, 2024

CERTIFICATION

I, Arkadiy Dobkin, certify that:

1. I have reviewed this annual report on Form 10-K of EPAM Systems, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 22, 2024

/s/ Arkadiy Dobkin

Arkadiy Dobkin

Chief Executive Officer and President (principal executive officer)

CERTIFICATION

I, Jason Peterson, certify that:

1. I have reviewed this annual report on Form 10-K of EPAM Systems, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 22, 2024

/s/ Jason Peterson

Jason Peterson

Senior Vice President, Chief Financial
Officer and Treasurer
(principal financial officer)

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report on Form 10-K of EPAM Systems, Inc. for the year ended December 31, 2023 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), the undersigned, in the capacities and on the date indicated below, hereby certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of EPAM Systems, Inc.

Date: February 22, 2024

/s/ Arkadiy Dobkin

Arkadiy Dobkin

Chairman, Chief Executive Officer
and President
(principal executive officer)

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report on Form 10-K of EPAM Systems, Inc. for the year ended December 31, 2023 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned, in the capacities and on the date indicated below, hereby certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of EPAM Systems, Inc.

Date: February 22, 2024

/s/ Jason Peterson

Jason Peterson

Senior Vice President, Chief Financial
Officer and Treasurer
(principal financial officer)

EPAM SYSTEMS, INC.

COMPENSATION RECOUPMENT POLICY

This EPAM Systems, Inc. Compensation Recoupment Policy (the “**Policy**”) has been adopted by the Board of Directors (the “**Board**”) of EPAM Systems, Inc. (the “**Company**”) on November 26, 2023. This Policy provides for the recoupment of certain executive compensation in the event of an accounting restatement resulting from material noncompliance with financial reporting requirements under U.S. federal securities laws in accordance with the terms and conditions set forth herein. This Policy is intended to comply with the requirements of Section 10D of the Exchange Act (as defined below) and Section 303A.14 of the NYSE Listed Company Manual.

1. **Definitions.** For the purposes of this Policy, the following terms shall have the meanings set forth below. Capitalized terms used but not defined in this Policy shall have the meanings set forth in the EPAM Systems, Inc. 2015 Long Term Incentive Plan or any successor plan (as the same may be amended, restated or modified from time to time).

(a) “**Committee**” means the Compensation Committee of the Board or any successor committee thereof.

(b) “**Covered Compensation**” means any Incentive-based Compensation “received” by a Covered Executive during the applicable Recoupment Period; *provided that*:

(i) such Covered Compensation was received by such Covered Executive (A) after the Effective Date, (B) after he or she commenced service as an Executive Officer and (C) while the Company had a class of securities publicly listed on a United States national securities exchange; and

(ii) such Covered Executive served as an Executive Officer at any time during the performance period applicable to such Incentive-based Compensation.

For purposes of this Policy, Incentive-based Compensation is “received” by a Covered Executive during the fiscal period in which the Financial Reporting Measure applicable to such Incentive-based Compensation (or portion thereof) is attained, even if the payment or grant of such Incentive-based Compensation is made thereafter.

(c) “**Covered Executive**” means any current or former Executive Officer.

(d) “**Effective Date**” means the date on which Section 303A.14 of the NYSE Listed Company Manual becomes effective.

(e) “**Exchange Act**” means the U.S. Securities Exchange Act of 1934, as amended.

(f) “**Executive Officer**” means, with respect to the Company, (i) its president, (ii) its principal financial officer, (iii) its principal accounting officer (or if there is no such accounting officer, its controller), (iv) any vice-president in charge of a principal business unit, division or function (such as sales, administration or finance), (v) any other officer who performs a policy-making function for the Company (including any officer of the Company’s parent(s) or subsidiaries if they perform policy-making functions for the Company), and (vi) any other person who performs similar policy-making functions for the Company. Policy-making function is not intended to include policy-making functions that are not significant. With respect to the administration of this Policy, the determination as to an individual’s status as an Executive Officer shall be made by the Committee and such determination shall be final, conclusive and binding on such individual and all other interested persons.

(g) “**Financial Reporting Measure**” means any (i) measure that is determined and presented in accordance with the accounting principles used in preparing the Company’s financial statements, (ii) stock price measure or (iii) total shareholder return measure (and any measures that are derived wholly or in part from any measure referenced in clause (i), (ii) or (iii) above). For the avoidance of doubt, any such measure does not need to be presented within the Company’s financial statements or included in a filing with the U.S. Securities and Exchange Commission to constitute a Financial Reporting Measure.

(h) “**Financial Restatement**” means a restatement of the Company’s financial statements due to the Company’s material noncompliance with any financial reporting requirement under U.S. federal securities laws that

is required in order to correct:

- (i) an error in previously issued financial statements that is material to the previously issued financial statements; or
- (ii) an error that would result in a material misstatement if (A) the error were corrected in the current period or (B) left uncorrected in the current period.

For purposes of this Policy, a Financial Restatement shall not be deemed to occur in the event of a restatement of the Company's financial statements due to an out-of-period adjustment or a retrospective (1) application of a change in accounting principles; (2) revision to reportable segment information due to a change in the structure of the Company's internal organization; (3) reclassification due to a discontinued operation; (4) application of a change in reporting entity, such as from a reorganization of entities under common control; or (5) revision for stock splits, reverse stock splits, stock dividends or other changes in capital structure.

(j) **"Incentive-based Compensation"** means any compensation (including, for the avoidance of doubt, any cash or equity or equity-based compensation, whether deferred or current) that is granted, earned and/or vested based wholly or in part upon the achievement of a Financial Reporting Measure. For purposes of this Policy, "Incentive-based Compensation" shall also be deemed to include any amounts which were determined based on (or were otherwise calculated by reference to) Incentive-based Compensation (including, without limitation, any amounts under any long-term disability, life insurance or supplemental retirement or severance plan or agreement or any notional account that is based on Incentive-based Compensation, as well as any earnings accrued thereon).

(k) **"NYSE"** means the New York Stock Exchange, or any successor thereof.

(l) **"Recoupment Period"** means the three fiscal years completed immediately preceding the date of any applicable Recoupment Trigger Date. Notwithstanding the foregoing, the Recoupment Period additionally includes any transition period (that results from a change in the Company's fiscal year) within or immediately following those three completed fiscal years, provided that a transition period between the last day of the Company's previous fiscal year end and the first day of its new fiscal year that comprises a period of nine (9) to twelve (12) months would be deemed a completed fiscal year.

(m) **"Recoupment Trigger Date"** means the earlier of (i) the date that the Board (or a committee thereof or the officer(s) of the Company authorized to take such action if Board action is not required) concludes, or reasonably should have concluded, that the Company is required to prepare a Financial Restatement, and (ii) the date on which a court, regulator or other legally authorized body causes the Company to prepare a Financial Restatement.

2. Recoupment of Erroneously Awarded Compensation.

(a) In the event of a Financial Restatement, if the amount of any Covered Compensation received by a Covered Executive (the **"Awarded Compensation"**) exceeds the amount of such Covered Compensation that would have otherwise been received by such Covered Executive if calculated based on the Financial Restatement (the **"Adjusted Compensation"**), the Company shall reasonably promptly recover from such Covered Executive an amount equal to the excess of the Awarded Compensation over the Adjusted Compensation, each calculated on a pre-tax basis (such excess amount, the **"Erroneously Awarded Compensation"**), subject to Section 2(b) hereof.

(b) If (i) the Financial Reporting Measure applicable to the relevant Covered Compensation is stock price or total shareholder return (or any measure derived wholly or in part from either of such measures) and (ii) the amount of Erroneously Awarded Compensation is not subject to mathematical recalculation directly from the information in the Financial Restatement, then the amount of Erroneously Awarded Compensation shall be determined (on a pre-tax basis) based on the Company's reasonable estimate of the effect of the Financial Restatement on the Company's stock price or total shareholder return (or the derivative measure thereof) upon which such Covered Compensation was received.

(c) For the avoidance of doubt, the Company's obligation to recover Erroneously Awarded Compensation is not dependent on (i) if or when the restated financial statements are filed or (ii) any fault of any Covered Executive for the accounting errors or other actions leading to a Financial Restatement.

(d) Notwithstanding anything to the contrary in Sections 2(a) through (c) hereof, the Company shall not be required to recover any Erroneously Awarded Compensation if both (x) the conditions set forth in either of the following clauses (i) or (ii) are satisfied and (y) the Committee (or a majority of the independent directors serving on the Board) has determined that recovery of the Erroneously Awarded Compensation would be impracticable:

(i) the direct expense paid to a third party to assist in enforcing the recovery of the Erroneously Awarded Compensation under this Policy would exceed the amount of such Erroneously Awarded Compensation to be recovered; *provided* that, before concluding that it would be impracticable to recover any amount of Erroneously Awarded Compensation pursuant to this Section 2(d), the Company shall have first made a reasonable attempt to recover such Erroneously Awarded Compensation, document such reasonable attempt(s) to make such recovery and provide that documentation to the NYSE;

(ii) recovery of the Erroneously Awarded Compensation would likely cause an otherwise tax-qualified retirement plan, under which benefits are broadly available to employees of the Company, to fail to meet the requirements of Sections 401(a)(13) or 411(a) of the U.S. Internal Revenue Code of 1986, as amended (the “Code”).

(e) The Company shall not indemnify any Covered Executive, directly or indirectly, for any losses that such Covered Executive may incur in connection with the recovery of Erroneously Awarded Compensation pursuant to this Policy, including through the payment of insurance premiums or gross-up payments.

(f) The Committee shall determine, in its sole discretion, the manner and timing in which any Erroneously Awarded Compensation shall be recovered from a Covered Executive in accordance with applicable law, including, without limitation, by (i) requiring reimbursement of Covered Compensation previously paid in cash; (ii) seeking recovery of any gain realized on the vesting, exercise, settlement, sale, transfer or other disposition of any equity or equity-based awards; (iii) offsetting the Erroneously Awarded Compensation amount from any compensation otherwise owed by the Company or any of its affiliates to the Covered Executive; (iv) cancelling outstanding vested or unvested equity or equity-based awards; and/or (v) taking any other remedial and recovery action permitted by applicable law. For the avoidance of doubt, except as set forth in Section 2(d), in no event may the Company accept an amount that is less than the amount of Erroneously Awarded Compensation; *provided* that, to the extent necessary to avoid any adverse tax consequences to the Covered Executive pursuant to Section 409A of the Code, any offsets against amounts under any nonqualified deferred compensation plans (as defined under Section 409A of the Code) shall be made in compliance with Section 409A of the Code.

3. Administration. This Policy shall be administered by the Committee. All decisions of the Committee shall be final, conclusive and binding upon the Company and the Covered Executives, their beneficiaries, executors, administrators and any other legal representative. The Committee shall have full power and authority to (i) administer and interpret this Policy; (ii) correct any defect, supply any omission and reconcile any inconsistency in this Policy; and (iii) make any other determination and take any other action that the Committee deems necessary or desirable for the administration of this Policy and to comply with applicable law (including Section 10D of the Exchange Act) and applicable stock market or exchange rules and regulations. Notwithstanding anything to the contrary contained herein, to the extent permitted by Section 10D of the Exchange Act and Section 303A.14 of the NYSE Listed Company Manual, the Board may, in its sole discretion, at any time and from time to time, administer this Policy in the same manner as the Committee.

4. Amendment/Termination. Subject to Section 10D of the Exchange Act and Section 303A.14 of the NYSE Listed Company Manual, this Policy may be amended or terminated by the Committee at any time. To the extent that any applicable law, or stock market or exchange rules or regulations require recovery of Erroneously Awarded Compensation in circumstances in addition to those specified herein, nothing in this Policy shall be deemed to limit or restrict the right or obligation of the Company to recover Erroneously Awarded Compensation to the fullest extent required by such applicable law, stock market or exchange rules and regulations. Unless otherwise required by applicable law, this Policy shall no longer be effective from and after the date that the Company no longer has a class of securities publicly listed on a United States national securities exchange.

5. Interpretation. Notwithstanding anything to the contrary herein, this Policy is intended to comply with the requirements of Section 10D of the Exchange Act and Section 303A.14 of the NYSE Listed Company Manual (and any applicable regulations, administrative interpretations or stock market or exchange rules and regulations adopted in connection therewith). The provisions of this Policy shall be interpreted in a manner that satisfies such requirements and this Policy shall be operated accordingly. If any provision of this Policy would otherwise frustrate or conflict with this intent, the provision shall be interpreted and deemed amended so as to avoid such conflict.

6. Other Compensation Clawback/Recoupment Rights. Any right of recoupment under this Policy is in addition to, and not in lieu of, any other remedies, rights or requirements with respect to the clawback or recoupment of any compensation that may be available to the Company pursuant to the terms of any other recoupment or clawback policy of the Company (or any of its affiliates) that may be in effect from time to time, any provisions in any employment agreement, offer letter, equity plan, equity award agreement or similar plan or agreement, and any other legal remedies available to the Company, as well as applicable law, stock market or exchange rules, listing standards or regulations; *provided, however*, that any amounts recouped or clawed back under any other policy that

would be recoupable under this Policy shall count toward any required clawback or recoupment under this Policy and vice versa.

7. Exempt Compensation. Notwithstanding anything to the contrary herein, the Company has no obligation to seek recoupment of amounts paid to a Covered Executive which are granted, vested or earned based solely upon the occurrence or non-occurrence of nonfinancial events. Such exempt compensation includes, without limitation, base salary, time-vesting awards, compensation awarded on the basis of the achievement of metrics that are not Financial Reporting Measures or compensation awarded solely at the discretion of the Committee or the Board, *provided* that such amounts are in no way contingent on, and were not in any way granted on the basis of, the achievement of any Financial Reporting Measure performance goal.

8. Miscellaneous.

(a) Any applicable award agreement or other document setting forth the terms and conditions of any compensation covered by this Policy shall be deemed to include the restrictions imposed herein and incorporate this Policy by reference and, in the event of any inconsistency, the terms of this Policy will govern. For the avoidance of doubt, this Policy applies to all compensation that is received on or after the Effective Date, regardless of the date on which the award agreement or other document setting forth the terms and conditions of the Covered Executive's compensation became effective, including, without limitation, compensation received under the EPAM Systems, Inc. 2015 Long Term Incentive Plan and any successor plan thereto.

(b) This Policy shall be binding and enforceable against all Covered Executives and their beneficiaries, heirs, executors, administrators or other legal representatives.

(c) All issues concerning the construction, validity, enforcement and interpretation of this Policy and all related documents, including, without limitation, any employment agreement, offer letter, equity award agreement or similar agreement, shall be governed by, and construed in accordance with, the laws of the State of Delaware, without giving effect to any choice of law or conflict of law rules or provisions (whether of the State of Delaware or any other jurisdiction) that would cause the application of the laws of any jurisdiction other than the State of Delaware. Only if on the date the Erroneously Awarded Compensation was originally paid to or received by a Covered Executive, the Covered Executive's primary work location was (i) within California or (ii) within another state in which the choice of law requirement in this Section is unlawful and/or unenforceable, then the state of the Covered Executive's primary work location as of the date the Erroneously Awarded Compensation was paid or received shall replace the State of Delaware for purpose of this Section.

(d) The Covered Executives, their beneficiaries, executors, administrators and any other legal representative and the Company shall initially attempt to resolve all claims, disputes or controversies arising under, out of or in connection with this Policy by conducting good faith negotiations amongst themselves. If such effort is not successful, then any suit, claim or other legal proceeding arising out of or relating to this Policy shall be resolved by final and binding arbitration under the Federal Arbitration Act (9 USC 1 ET SEQ), before a single arbitrator adopting the then-current rules of the American Arbitration Association ("AAA") relative to Employment Arbitration. The arbitrator shall have exclusive authority to resolve any dispute relating to the interpretation, applicability, or enforceability of this arbitration provision. The AAA rules may be found as of the Effective Date at <https://www.adr.org/Rules>. AAA contact information for other questions about the process can be found as of the Effective Date at <https://www.adr.org/Rules>. This agreement to arbitrate includes claims, suits or other legal proceedings against the Company and any of its subsidiaries or affiliates, and any of such respective entities' officers, directors, supervisors, managers, employees, or agents in their capacity as such or otherwise. The arbitrator shall be selected by mutual agreement of the parties to the arbitration or, if the parties cannot agree, then by striking from a list of 11 arbitrators supplied by AAA. Each party shall have 10 calendar days from the postmark date on the list to strike all names on it deemed unacceptable. If only one common name remains on the list of all parties, the individual shall be designated as the arbitrator. If more than one common name remains, the parties shall strike names alternatively with the party striking first to be determined by coin toss, until only one common name remains. If no common names remain, then AAA shall furnish an additional list of eleven (11) arbitrators from which the parties shall strike alternately, with the party striking first to be determined by a coin toss, until only one name remains. That person shall be designated as the arbitrator.

The arbitrator will have the power to decide dispositive motions prior to any arbitration hearing.

The decision of the arbitrator will be in writing and contain findings of fact and conclusions of law.

The venue for such arbitration shall be Bucks County, Pennsylvania or the closest available AAA offices thereto, unless on the date the Erroneously Awarded Compensation was originally paid to or received by a Covered Executive, the Covered Executive was employed (i) within California, or (ii) within another location where the venue in this Section would be deemed unlawful or unenforceable, in which case the venue shall instead be within the

county and state of the Covered Executive's employment as the date the Erroneously Awarded Compensation was paid or received. **Any arbitral award determination shall be final and binding. It is understood and agreed that by agreeing to arbitration, the right to a jury trial as well as normal-course appeal rights in court, are waived.** The Company will pay the arbitrator's fees and arbitration expenses and any other costs unique to the arbitration hearing except for the filing fee if a claim is initiated by a Covered Executive, in which case the Covered Executive will be responsible to pay the filing fee up to a maximum of the amount that would be paid if a complaint was filed in the court of general jurisdiction. Each side bears its own deposition, witness, expert and attorney's fees and other expenses to the same extent as if the matter were being heard in court. .

(e) If any provision of this Policy is determined to be unenforceable or invalid under any applicable law, such provision will be applied to the maximum extent permitted by applicable law and shall automatically be deemed amended in a manner consistent with its objectives to the extent necessary to conform to any limitations required under applicable law.