PART I

ITEM 1. IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISERS

Not applicable.

ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE

Not applicable.

ITEM 3. KEY INFORMATION

A. [Reserved]

B. Capitalization and Indebtedness

Not applicable.

C. Reasons for the Offer and Use of Proceeds

Not applicable.

D. Risk Factors

Investing in our ordinary shares, including ordinary shares represented by ADSs, involves a high degree of risk and uncertainty. You should carefully consider the risks and uncertainties described below before investing in our ordinary shares or ADSs. Our business prospects, operating results and financial condition could be seriously harmed due to any of the following risks. Additional risks and uncertainties that we are not aware of or that we currently believe are immaterial may also adversely affect our business prospects, financial condition, and results of operations. The trading prices of our ordinary shares and ADSs could decline as a result of the realization of any of these risks, in which case you may lose part or all of your investment.

Risks Related to Our Business, Our Industry and Our Financial Condition

The implementation of our M&A growth strategy, which requires the integration of our multiple acquired companies and their respective businesses, operations and employees with our own, and their respective businesses, operations and employees with our own, involves significant risks, and the failure to integrate successfully may adversely affect our future results.

In the past decade we have completed a significant number of important acquisitions. In particular, we have acquired the following companies in the following fiscal periods: in early 2023, we acquired 70% of the share capital of Zebra AGR Technologies Ltd.; in 2022, we acquired 100% of the share capital of RDT Equipment and Systems (1993) Ltd, Shamrad Electronic (1997) Ltd, I.T Cognitive Ltd, The Goodkind Group, LLC., Intrabases SAS and 70% of the share capital of Formally Smart Form System Ltd; in 2021, we acquired the entire share capital of Zap Group Ltd., EnableIT LLC., and Menarva Software Solutions Ltd., 60% of the of the share capital of 9540 Y.G. Soft I.T Ltd., 60% of the of the share capital of SQ Service Quality Ltd., 75% of the share capital of A.A Engineering Ltd., 75% of the of the share capital of I.T.D. Group Ltd., and 60% of the of the share capital of AVB Technologies Ltd.; in the fourth quarter of 2020, we acquired Tia Technology (which, along with sum.cumo, has been renamed or will be renamed Sapiens Denmark and Sapiens Germany, respectively), Thor Denmark Holding ApS, and RightStar Inc.; in the third quarter of 2020, we acquired Delphi Technology Inc. (which has been merged into Sapiens America), Stockell Information Systems, Inc, Gestetnertec Ltd. (51%) and Mobisoft Ltd (70%); in the second quarter of 2020, we acquired Tiful Gemel Ltd. (75%), Magic Hands B.V, Liram Financial Software Ltd. (70%) and Aptonet Inc, and in the first quarter of 2020, we acquired sum.como GmbH and Ofek Aerial Photography (80%). These acquisitions are part of our integrated M&A growth strategy, which is centered on three key factors: growing our customer base, expanding our geographic footprint and adding complementary solutions to our portfolio— all while we seek to ensure our continued high quality of services and product delivery. Any failure to successfully integrate the business, operations and employees of our acquired companies, or to otherwise realize the anticipated benefits of these acquisitions, could harm our results of operations. Our ability to realize these benefits will depend on the timely integration and consolidation of organizations, operations, facilities, procedures, policies and technologies, and the harmonization of differences in the business cultures between these companies and their personnel. Integration of these businesses will be complex and time-consuming, will involve additional expense and could disrupt our business and divert management’s attention from ongoing business concerns. The challenges involved in integrating these acquired entities and other former acquisitions include:

- Preserving customer and other important relationships
- Integrating complex, core products and services that we acquire with our existing products and services
- Integrating financial forecasting and controls, procedures and reporting cycles
- Combining and integrating information technology, or IT, systems
- Integrating employees and related HR systems and benefits, maintaining employee morale and retaining key employees
- Potential confusion that we may have in our dealings with customers and prospective customers as to the products we are offering to them and potential overlap among those products
- Investment of significant management time and attention towards the integration process

The benefits we expect to realize from these acquisitions are, necessarily, based on projections and assumptions about the combined businesses of our Group, and assume, among other things, the successful integration of these acquired entities into our business and operations. Our projections and assumptions concerning our acquisitions may be inaccurate, however, and we may not successfully integrate the acquired companies and our operations in a timely manner, or at all. We may also be exposed to unexpected contingencies or liabilities of the acquired companies. If we do not realize the anticipated benefits of these transactions, our growth strategy and future profitability could be adversely affected.

If we do not successfully develop and deploy new technologies to address the updated needs of our customers, our business and results of operations could suffer.

Our success has been based in part on our ability to design software solutions that enable our customers to facilitate, improve and automate traditional processes to make them easier for end-customers, by utilizing advanced technologies, such as digital engagement, low-code/no-code, API layer, advanced analytics and cloud computing. We spend substantial amounts of time and money researching and developing new technologies and enhanced versions of existing features to meet our customers’ and potential customers’ rapidly evolving needs. There is no assurance that our enhancements to our solutions or our new solutions’ features, capabilities, or offerings, will be compelling to our customers or gain market acceptance. If our research and development investments do not accurately anticipate customer demand or if we fail to develop our solutions in a manner that satisfies customer preferences in a timely and cost-effective manner, we may fail to retain our existing customers or increase demand for our solutions.

Introduction of new products and services by competitors or the development of entirely new technologies to replace existing offerings could make our solutions obsolete or adversely affect our business, financial condition, and results of operations. We may experience difficulties with software development, design, or marketing that delay or prevent our development, introduction, or implementation of new solutions, features, or capabilities. We have in the past experienced delays in our internally planned release dates of new features and capabilities, and there can be no assurance that new solutions, features, or capabilities will be released according to schedule. Any delays could result in adverse publicity, loss of revenue or market acceptance, or claims by customers brought against us, any of which could harm our business. Moreover, the design and development of new solutions or new features and capabilities to our existing solutions may require substantial investment, and we have no assurance that such investments will be successful. If customers do not widely adopt our new solutions, experiences, features, and capabilities, we may not be able to realize a return on our investment and our business, financial condition, and results of operations may be adversely affected.

Our new and existing solutions and changes to our existing solutions could fail to attain sufficient market acceptance for many reasons, including:

- Our failure to predict market demand accurately in terms of product functionality and to supply offerings that meet that demand in a timely fashion;
- Product defects, errors, or failures or our inability to satisfy customer service level requirements;
- Negative publicity or negative private statements about the security, performance, or effectiveness of our solutions or product enhancements;
- Delays in releasing to the market our new offerings or enhancements to our existing offerings, including new product modules;
- Introduction or anticipated introduction of competing solutions or functionalities by our competitors;
- Inability of our solutions or product enhancements to scale and perform to meet customer demands;
- Receiving qualified or adverse opinions in connection with security or penetration testing, certifications or audits, such as those related to IT controls and security standards and frameworks or compliance;
- Poor business conditions for our customers, causing them to delay software purchases;
- Reluctance of customers to purchase proprietary software solutions; and
- Reluctance of customers to purchase products incorporating open source software.

If we are not able to continue to identify challenges faced by our customers and develop, license, or acquire new features and capabilities for our solutions in a timely and cost-effective manner, or if such enhancements do not achieve market acceptance, our business, financial condition, results of operations, and prospects may suffer and our anticipated revenue growth may not be achieved.

Because we derive, and expect to continue to derive, a material portion of our revenue from implementation of our solutions, along with post-implementation services such as ongoing support and maintenance and professional services, market acceptance of these solutions, and any enhancements or changes thereto, is important to our success.

Our development cycles are often lengthy, and we may not have the resources available to complete development of new, enhanced or modified solutions. We may incur significant expenses before we generate revenues, if any, from our solutions.

Because certain of our solutions are complex and require rigorous testing, development cycles can be lengthy, taking us up to two years to develop and introduce new, enhanced or modified solutions. Moreover, development projects can be technically challenging and expensive. The nature of these development cycles may cause us to experience delays between the time we incur expenses associated with research and development and the time we generate revenues, if any, from such expenses. We may not have, in the future, sufficient funds or other resources to make the required investments in product development. Furthermore, we may invest substantial resources in the development of solutions that do not achieve market acceptance or commercial success. Even where we succeed in our sales efforts and obtain new orders from customers, the complexity involved in delivering our solutions to such customers makes it more difficult for us to consummate delivery in a timely manner and to recognize revenue and maximize profitability. Failure to deliver our solutions in a timely manner could result in order cancellations, damage our reputations and require us to indemnify our customers. Any of these risks relating to our lengthy and expensive development cycle could have a material adverse effect on our business, financial conditions and results of operations.

Our sales cycle is variable and often lengthy, depending upon many factors outside our control, which requires us to expend significant time and resources prior to generating associated revenues.

The typical sales cycle for certain of our solutions and services is lengthy and unpredictable, requires pre-purchase evaluation by a significant number of persons in our customers' organizations, and often involves a significant operational decision by our customers. Our sales efforts sometimes involve educating our customers, industry analysts and consultants about the use and benefits of our solutions, including the technical capabilities of those solutions and the efficiencies achievable by organizations deploying our solutions. Customers typically undertake a significant evaluation process, which frequently involves not only our solutions, but also those of our competitors, and can result in a lengthy sales cycle. Our sales cycle for new customers is sometimes one to two years and can extend even longer in some cases. We often spend substantial time, effort and money in our sales efforts without any assurance that such efforts will produce any sales.

Macro-economic headwinds caused by inflation, rising interest rates, global supply problems and fluctuations in currency exchange rates may adversely impact our revenues, profitability and cash flows.

Our business depends on various elements, including, the economic health of our current and prospective clients, worldwide economic conditions, and with respect to Sapiens, the overall demand within the global insurance technology sector. Sapiens markets and sells its insurance software solutions and services primarily in the European and North American regions, as well as, to a smaller extent, in various parts of the rest of the world. Adverse economic conditions in those markets, including due to rising inflation, increased interest rates and decreased economic output, may reduce overall demand for its insurance software solutions and services. These factors could also delay or lengthen sales cycles, and inhibit international expansion of our subsidiaries and/or affiliates, and may also lead to longer collection cycles for payments due from customers, as well as result in an increase in customer bad debt. In addition, the weakening of European currencies in comparison to the U.S. dollar has been adversely impacting in a material manner, and may continue to adversely impact, Sapiens' revenues and results of operations as measured in U.S. dollars. While the implications of these macroeconomic trends for Sapiens' business, results of operations and overall financial position remain uncertain over the long term, the headwinds that are being created by these trends are creating challenges for Sapiens' business in the short term. In 2022, Sapiens experienced a slower growth rate in revenues, profitability and cash flows as a result of those headwinds. Please see "Risks Relating to our International Operations-Our international operations expose us to risks associated with fluctuations in foreign currency exchange rates that have been adversely affecting, and could continue to adversely affect, our business" for a discussion of the headwinds created by currency exchange rates.

In addition to exerting the foregoing impact, macro-economic headwinds may amplify a number of risks for us, including, but not limited to, the following:

- our ability to increase sales of new, enhanced solutions to existing customers may be hindered due to more cautious purchasing and investment strategies by corporate customers;
- reduced economic activity, which could lead to a prolonged recession, could negatively impact customer discretionary spending on insurance solutions, which in turn could substantially impact our business operations and financial condition in an adverse manner;
- our customer success efforts, our ability to enter into new markets and to acquire new customers may be impeded, in part due to lengthening of our sales cycles;
- there may be an increase in our credit losses reserves as customers face economic hardship and collectability becomes more uncertain, including due to the risk of bankruptcies;
- our ability to retain, attract and recruit employees may be adversely impacted if our growth rate and profitability decrease;
- our ability to complete acquisitions may be hampered if we need to seek financing for such acquisitions; and
- our ability to raise capital may be hurt.

The full impact of economic headwinds on our business and our future performance may also have the effect of heightening any of our other risk factors described in this annual report, and is difficult to predict how long those trends will continue, so there is some level of risk that any guidance we provide to the market may turn out to be incorrect.

Investment in highly skilled research and development, product implementation, customer support and other personnel is a critical factor in our ability to develop and enhance our solutions and support our customers, but that personnel may nevertheless be hard to retain and an increase in that investment may furthermore reduce our profitability.

As a provider of proprietary software solutions that rely upon technological advancements, we rely heavily on our research and development activities to remain competitive. We consequently depend in large part on the ability to attract, train, motivate and retain highly skilled information technology professionals for our research and development team, as well as software programmers and communications engineers, and product implementation experts, particularly individuals with knowledge and experience in the insurance industry. Because our software solutions are highly complex and are generally used by our customers to perform critical business functions, we also depend heavily on other skilled technology professionals to provide ongoing support to our customers. Skilled technology professionals are often in high demand and short supply.

Our research and development, product delivery, and general and administrative, activities are conducted at locations where the competition for skilled technology professionals is particularly intense. While there has been strong competition for qualified human resources in the high-tech industry historically, the industry experienced record growth and activity in 2021, both at the earlier stages of venture capital and growth equity financings, and at the exit stage of initial public offerings and mergers and acquisitions. This flurry of growth and activity has caused a sharp increase in job openings in both high-tech companies and research and development centers, as well as the intensification of competition between employers to attract qualified employees in those jurisdictions. Employee attrition— for all fields and professions, and for all levels of management— has accompanied this strong competition, and High-Tech companies such as ours that are based in Israel and these other jurisdictions are currently facing a shortage of skilled human capital, including engineering, research and development, sales and customer support personnel. Many of the companies with which we compete for qualified personnel may have greater resources than we do, and we may not succeed in recruiting additional experienced or professional personnel, retaining personnel or effectively replacing current personnel who may depart with qualified or effective successors.

If we are unable to hire or retain qualified research and development personnel and other technology professionals to develop, implement and modify our solutions, we may be unable to meet the needs of our customers. Even if we succeed at retaining the necessary skilled personnel in our research and development and customer support efforts, our investments in our personnel and product development efforts increase our costs of operations and thereby reduce our profitability, unless accompanied by increased revenues. As a result of the intense competition for qualified human resources, the High-Tech market in which we operate has experienced and may continue to experience significant wage inflation. Accordingly, our efforts to attract, retain and develop personnel may also result in significant additional expenses, which could adversely affect our profitability. Given the highly competitive industry in which we operate, we may not succeed in increasing our revenues in line with our increasing investments in our personnel and research and development efforts.

Furthermore, as we seek to expand the marketing and offering of our products and services into new territories, it requires the retention of new, additional skilled personnel with knowledge of the particular market and applicable regulatory regime. Such skilled personnel may not be available at a reasonable cost relative to the additional revenues that we expect to generate in those territories, or may not be available at all. In particular, wage costs in lower-cost markets where we have recently added personnel, such as India, are increasing and we may need to increase the levels of our employee compensation more rapidly than in the past to remain competitive. The transition of projects to new locations may also lead to business disruptions due to differing levels of employee knowledge and organizational and leadership skills. Although we have never experienced an organized labor dispute, strike or work stoppage, any such occurrence, including with unionization efforts, could disrupt our business and operations and harm our financial condition. In addition, we may need to attract and train additional IT professionals at a rapid rate in order to serve several new customers or implement several new large-scale projects in a short period of time. If the current adverse macroeconomic headwinds develop into a full-fledged downturn in economic conditions and we need to lay off some of those employees, that will result in our loss of the time and resources that we had invested in training them, and our loss of their accumulated know-how.

Failure to manage our growth— both organic and non-organic—could effectively harm our business.

In recent years, we experienced, and expect to continue to experience in the future, growth in our international operations that has placed, and will continue to place, a significant strain on our operational and financial resources and our personnel. To manage our anticipated future growth effectively, we must continue to maintain and may need to enhance our information technology infrastructure, financial and accounting systems and controls and manage expanded operations and employees in geographically distributed locations. We also must attract, train and retain a significant number of additional qualified sales and marketing personnel, professional services personnel, software engineers, technical personnel and management personnel. Our failure to manage our growth effectively could have a material adverse effect on our business, results of operations and financial condition. Our growth could require significant capital expenditures and may divert financial resources from other projects, such as the development of new services or product enhancements. For example, since it may take as long as six months to hire and train a new member of our professional services staff, we make decisions regarding the size of our professional services staff based upon our expectations with respect to customer demand for our products and services. If these expectations are incorrect, and we increase the size of our professional services organization without experiencing an increase in sales of our products and services, we will experience reductions in our gross and operating margins and net income. If we are unable to effectively manage our growth, our expenses may increase more than expected, our revenues could decline or grow more slowly than expected and we may be unable to implement our business strategy. Our growth may also be accompanied by greater exposure to litigation, including suits by clients, vendors, employees or former employees, as the sizes of our workforce and our overall international operations increase. All such litigation carries with it related costs and could divert our management’s attention from ongoing business concerns. We also intend to continue to expand into additional international markets which, if not technologically or commercially successful, could harm our financial condition and prospects.

The market for software solutions and related services is highly competitive and dynamic, and we need to adapt quickly to trends in order to retain or grow our market share.

The market for software solutions and related services, including for business solutions for the insurance and financial services industry, in which we compete, is highly competitive and continuously evolving.

Our competitors include, with respect to Magic Software and Matrix IT:

- multinational IT service providers, including the services arms of global technology providers;
- off-shore IT service providers in lower-cost locations such as India and Eastern Europe;
- accounting firms and consultancies that provide consulting and other IT services and solutions;
- solution or service providers that compete with us in a specific geographic market, industry or service area, including advertising agencies, engineering services providers and technology start-ups and other companies that can scale rapidly to focus on or disrupt certain markets and provide new or alternative products, services or delivery models; and
- in-house IT departments that use their own resources, rather than engage an outside firm.

With respect to Sapiens' insurance software solutions, our competitors generally consist of:

- global software providers with their own IP;
- local/domestic software vendors with their own IP, operating in a designated geographic market and/or within a designated segment of the insurance industry;
- BPO providers (as described below in this risk factor) who offer end-to-end outsourcing of insurance carriers' business, including core software administration (although BPO providers want to buy comprehensive software platforms to serve as part of the BPO proposition from vendors and may seek to purchase our solutions for this purpose);
- internal IT departments, who often prefer to develop solutions in-house; and
- new insurtech companies with niche solutions.

Our failure to adapt to changing market conditions and to compete successfully with established or new competitors could have a material adverse effect on our results of operations and financial condition. Many of our smaller competitors have been acquired by larger competitors, which provides those smaller competitors with greater resources and potentially a larger client base for which they can develop solutions. Our customers or potential customers may prefer suppliers that are larger than us, are better known in the market or that have a greater global reach. In lieu of being acquired by larger competitors, current and potential competitors have established, and may establish in the future, cooperative relationships among themselves, or with third parties to increase their abilities to address the needs of our existing, or prospective, customers. As a result, our competitors may be able to adapt more quickly than us to new or emerging technologies and changes in customer requirements, and may be able to devote greater resources to the promotion and sale of their products. As a means of adapting to competition, we and some of our competitors have developed systems to allow customers to outsource their core systems to external providers (known as BPO). We are seeking to partner with BPO providers, but there can be no assurance that such BPO providers will adopt our solutions rather than those of our competitors. Determinations by current and potential customers to use BPO providers that do not use our solutions may result in the loss of such customers and limit our ability to gain new customers.

A number of our competitors also have operational advantages relative to us, as they are generally private companies that are not required to report results of operations on a regular basis, and can consequently benefit from the ability to take more risky actions in the hope of building up strong brand name recognition, such as payment of higher salaries as a recruitment tool, sale of products at cheaper prices, and very rapid growth of sales and marketing teams, even if those actions result in operating losses.

To compete in the rapidly changing environment, and win the competition for end-customers, we also need to offer a coherent digital and data propositions, allowing our insurance provider customers to better interact with their own customers in a digital and omni-channel manner. If we fail to adapt and accelerate the development of our digital and data offerings, that may adversely impact our ability to compete in some of our target markets. Consolidation in the insurance industry in which some of our clients operate also increases competitiveness for us by reducing the number of potential clients for whose business we and our competitors compete. The high level of continuity with which insurance and other financial services clients remain with their providers of software-related services also increases general competitiveness by tying clients to their service providers and thereby shrinking the market of potential clients.

Customers switching to cloud-based solutions may lead to a decrease in demand for our products.

Our competitiveness in the market is also tied to our ability to adapt quickly to the movement towards cloud-based solutions. Our ability to provide solutions that may be deployed in the cloud has required, and may continue to require, considerable investment in resources, including technical, financial, legal, sales, information technology and operational systems. Market acceptance of cloud offerings is affected by a variety of factors, including but not limited to: security, service availability, reliability, availability of tools to automate cloud migration, scalability, integration with public cloud platforms, customization, availability of qualified third-party service providers to assist customers in transitioning to cloud-based solutions, performance, current license terms, customer preference, customer concerns with entrusting a third party to store and manage their data, public concerns regarding privacy and the enactment of restrictive laws or regulations. We may not meet our financial and strategic objectives if the pace at which we transform our solutions to be cloud-compatible is slower than our customers' adoption of cloud-based solutions. To address the challenges in transitioning our customers to the cloud, we continue to invest in innovation and feature development, simplified cloud migration, and performance and reliability, as well as other cloud customer success and sales initiatives. There can be no assurance, however, that these initiatives will improve our ability to capture or retain customers that prefer cloud-based solutions. If we are unable to win over those new customers or retain those existing customers, we may experience a negative impact on our overall financial performance.

This movement towards cloud-based solutions is occurring in the insurance and financial services sectors in which our subsidiary Sapiens operates, and also in other sectors in which our subsidiaries operate. The rising trend of Matrix's and Magic Software's customers to switch to cloud-based solutions, is, on the one hand, a business opportunity for us to expand our cloud-based offerings, yet, on the other hand, also carries with it the risk of those customers consuming less of the other services provided by us. For example, in the marketing and software support solutions sector, Matrix and Magic Software have many opportunities for marketing new software solutions products and related services, new solutions which are cloud-based. Yet, in many cases these will be an alternative to our traditional software solutions products, which are also being promoted by Matrix and Magic Software. As long as the decrease in demand for Matrix's and Magic Software's services, due to customers switching to cloud based solutions, is greater than the increase in demand for Matrix's and Magic Software's cloud based solutions, the business results of Matrix and Magic Software may be harmed.

Additionally, the gross profit derived by Matrix and by Magic Software from their cloud-based solutions may be lower than the gross profit that they derive from their traditional solutions, which were replaced by the cloud-based solutions.

We may be required to increase or decrease the scope of our operations in response to changes in the demand for our products and services, and if we fail to successfully plan and manage changes in the size of our operations, our business will suffer.

In the past, we have both grown and contracted our operations, in some cases rapidly, to profitably offer our products and services in a continuously changing market. If we are unable to manage these changes, or to plan and manage any future changes in the size and scope of our operations, our business may be negatively impacted.

Restructurings and cost reduction measures that we have implemented in the past have reduced the size of our subsidiaries' operations and workforce. Reductions in personnel can result in significant severance, administrative and legal expenses, and may also adversely affect or delay various sales, marketing and product development programs and activities. These cost reduction measures have included, and may in the future include, employee separation costs and consolidating and/or relocating certain of our subsidiaries' operations to different geographic locations.

Acquisitions, organic growth and absorption of significant numbers of customers' employees in connection with managed services projects have, from time to time, increased our subsidiaries' headcount. During periods of expansion, our subsidiaries may need to serve several new customers or implement several new large-scale projects in short periods of time. This may require our subsidiaries to attract and train additional IT professionals at a rapid rate, as well as quickly expand their facilities, which may be difficult to successfully implement.

If existing customers are not satisfied with our solutions and services and either do not make subsequent purchases from us or do not continue using such solutions and services, or if our relationships with our largest customers are impaired, our revenue could be negatively affected.

We depend to an extent on repeat product and service revenues from our base of existing customers. For example, five of Sapiens' largest customers accounted for, in the aggregate, 15.5% and 14.9% of its revenues in the years ended December 31, 2022 and 2021, respectively. Two of Magic Software's largest clients accounted together for 20.6% and 21.2% of its revenues in the years ended December 31, 2022 and 2021, respectively, and five of Magic Software's largest clients accounted for 26.4% and 27.5% of its revenues in the years ended December 31, 2022 and 2021, respectively. If our existing customers are not satisfied with our solutions and services, they may not enter into new project contracts with us or continue using our technologies. A significant decline in our revenue stream from existing customers, including due to termination of agreement(s), would have an adverse effect on our business, results of operations and financial condition.

We are in part dependent on a limited number of core product families, and a decrease in revenues from these products would adversely affect our business, results of operations and financial condition; our future success will be partially dependent on the acceptance of future releases of our core product offerings, and if we are unsuccessful with these efforts, our business, results of operations and financial condition will be adversely affected.

We (through our Magic Software subsidiary) derive a portion of our revenues and profits from sales of application and integration platforms and vertical software solutions and from related professional services, software maintenance and technical support. Our future growth depends in substantial part on our ability to effectively develop and sell new products developed by us or acquired from third parties as well as add new features to existing products and new software service offerings. A decrease in revenues from our principal products and related services would adversely affect our business, results of operations and financial condition.

Our future success depends in part on the continued acceptance of our application platforms and integration products and our vertical packaged software solutions. The continued acceptance of our platforms and software solutions will be dependent in part on the continued acceptance and growth of the cloud market, including rich internet applications, or RIAs, mobile and software as a service, or SaaS, for which certain of them are particularly useful and advantageous. We will need to continue to enhance our products to meet evolving requirements and if new versions of such products are not accepted, our business, results of operations and financial condition may be adversely affected.

Our business sometimes involves long-term, large, complex implementation projects across the globe, which involve uncertainties, mainly during the implementation period, such as changes to the estimated project costs and changes in project schedule. Such changes may cause disputes between us and our customers, whether or not due to failure on our part, and may in some cases result in cancellation of those projects. Such cancellation can adversely impact our revenues, profitability and/or, in some cases, our relationship with the relevant customer.

Our business is, in part, characterized by relatively large, complex implementation projects or engagements that can have a material impact on our total revenue and cost of revenue from quarter to quarter. A material percentage of our expenses, particularly employee compensation, are relatively fixed. Therefore, variations in the timing of the initiation, estimated scope of work, progress or completion of projects or engagements can cause significant variations in operating results from quarter to quarter.

This is particularly the case for fixed-price contracts, where our delivery requirements sometimes span more than one year. For a highly complex, fixed-price project that requires customization, we may not be able to accurately estimate our actual costs of completing the project. We are sometimes dependent on the assistance of third-parties (such as our customers' vendors or IT employees, or our system integrator partners) in implementing such projects, which may not be provided in a timely manner. If our actual cost-to-completion of a project significantly exceeds the estimated costs, we could experience a loss on the related contract, which (when multiplied by multiple projects) could have an adverse effect on our results of operations, financial position and cash flow.

Similarly, delays in implementation projects (whether fixed price or not) may affect our revenue and cause our operating results to vary. Some of our solutions are delivered over periods of time ranging from several months to a few years. Payment terms for those solutions are generally based on periodic payments or on the achievement of milestones. Any delays in payment or in the achievement of milestones may have an adverse effect on our results of operations, financial position or cash flows.

For non-fixed price contracts, we generally provide our customers with up-front estimates regarding the duration, budget and costs associated with the implementation of their project. Due to the complexities described above, however, we may not meet those upfront estimates and/or the expectations of our customers, which could lead to a dispute with a client. In the past, these disputes have sometimes arisen with significant customers of Sapiens that have accounted for a significant portion of its revenues, and the settlement of these disputes reduced its revenues and operating profit relative to its prior estimates. In 2022 and 2021, certain customers of Sapiens canceled projects with us at the stage of implementation, resulting in the loss of potential future revenues from those customers. We expect that we may have similar cancellations by our customers in the future, during the implementation phase. These cancellations, if coupled with disputes with significant customers in the future, whether or not due to failure on our part, could result in lost revenues, lower profit margins, legal claims against us and even the refund of the customers' money and could harm our reputation, thereby adversely affecting our ability to attract new customers and to sell additional solutions and services to existing customers.

We may be liable to our clients for damages caused by a violation of intellectual property rights, the disclosure of other confidential information, including personally identifiable information, system failures, errors or unsatisfactory performance of services, and our insurance policies may not be sufficient to cover these damages.

We often have access to, and are required to collect and store, sensitive or confidential client information, including personally identifiable information. Some of our client agreements do not limit our potential liability for breaches of confidentiality, infringement indemnity and certain other matters. Furthermore, breaches of confidentiality may entitle the aggrieved party to equitable remedies, including injunctive relief. If any person, including any of our employees and subcontractors, penetrates our network security or misappropriates sensitive or confidential client information, including personally identifiable information, we could be subject to significant liability from our clients or from our clients' customers for breaching contractual confidentiality provisions or privacy laws. Despite measures we take to protect the intellectual property and other confidential information or personally identifiable information of our clients, unauthorized parties, including our employees and subcontractors, may attempt to misappropriate certain intellectual property rights that are proprietary to our clients or otherwise breach our clients' confidences. Unauthorized disclosure of sensitive or confidential client information, including personally identifiable information, or a violation of intellectual property rights, whether through employee misconduct, breach of our computer systems, systems failure or otherwise, may subject us to liabilities, damage our reputation and cause us to lose clients.

Many of our contracts involve projects that are critical to the operations of our clients' businesses and provide benefits to our clients that may be difficult to quantify. Any failure in a client's system or any breach of security could result in a claim for substantial damages against us, regardless of our responsibility for such failure. Furthermore, any errors by our employees in the performance of services for a client, or poor execution of such services, could result in a client terminating our engagement and seeking damages from us.

In addition, while we have taken steps to protect the confidential information that we have access to, including confidential information we may obtain through usage of our cloud-based services, our security measures may be breached. If a cyber-attack or other security incident were to result in unauthorized access to or modification of our customers' data or our own data or our IT systems or in disruption of the services we provide to our customers, or if our products or services are perceived as having security vulnerabilities, we could suffer significant damage to our business and reputation.

Although we attempt to limit our contractual liability for consequential damages in rendering our services, these limitations on liability may not apply in all circumstances, may be unenforceable in some cases, or may be insufficient to protect us from liability for damages. There may be instances when liabilities for damages are greater than the insurance coverage we hold and we will have to internalize those losses, damages and liabilities not covered by our insurance.

Changes in privacy regulations may impose additional costs and liabilities on us, limit our use of information, and adversely affect our business.

Personal privacy has become a significant issue in the United States, Europe, and many other countries where we operate. Many government agencies and industry regulators continue to impose new restrictions and modify existing requirements about the collection, use, and disclosure of personal information. Changes to laws or regulations affecting privacy and security may impose additional liability and costs on us and may limit our use of such information in providing our services to customers. If we were required to change our business activities, revise or eliminate services or products, or implement burdensome compliance measures, our business and results of operations may be harmed. Additionally, we may be subject to regulatory enforcement actions resulting in fines, penalties, and potential litigation if we fail to comply with applicable privacy laws and regulations.

In particular, our European activities are subject to the European Union General Data Protection Regulation, or GDPR, which has created additional compliance requirements for us. GDPR broadens the scope of personal privacy laws to protect the rights of European Union citizens and requires organizations to report on data breaches within 72 hours and be bound by more stringent rules for obtaining the consent of individuals on how their data can be used. GDPR became enforceable on May 25, 2018 and non-compliance may expose entities such as our company to significant fines or other regulatory claims. In the United States, our operations in various states, such as New York and California, are now subject to expanded privacy regulations. In California, we are subject to the California Consumer Privacy Act, or CCPA, a statute that went into effect on January 1, 2020. The CCPA imposes enhanced disclosure requirements for us regarding our interactions with customers who are residents of California, such as comprehensive privacy notices for consumers when we, or our agents, collect their personal information. We may be further required to ensure third-party compliance, as under the CCPA we could be liable if third parties that collect, process or retain personal information on our behalf violate the CCPA's privacy requirements. The sanctions for non-compliance could include fines and/or civil lawsuits.

While we have invested in, and intend to continue to invest in, reasonably necessary resources to comply with these standards, to the extent that we fail to adequately comply, that failure could have an adverse effect on our business, financial conditions, results of operations and cash flows.

Significant disruptions of our information technology systems or breaches of our data security could adversely affect our business.

A significant invasion, interruption, destruction or breakdown of our information technology, or IT, systems and/or infrastructure by persons with authorized or unauthorized access could negatively impact our business and operations. We could also experience business interruption, information theft and/or reputational damage from cyber-attacks, which may compromise our systems and lead to data leakage internally. Both data that has been input into our main IT platform, which covers records of transactions, financial data and other data reflected in our results of operations, as well as data related to our proprietary rights (such as research and development, and other intellectual property- related data), are subject to material cyber security risks. From time to time, we experience cyber-attacks and other security incidents of varying degrees, though none which individually or in the aggregate has led to costs or consequences which have materially impacted our operations or business. Sapiens experienced attacks in or about April 2020, which resulted in a ransom payment and a brief interruption of service availability to customers, prior to restoration of secure computing operations. The amount paid in connection with, and the consequences of, the foregoing did not have a material adverse effect on Sapiens’ or our business or operations. In response, we and Sapiens implemented further controls and planned for other preventative actions to further strengthen our systems against future attacks. We also have in place disclosure controls that require the reporting of a cyber attack internally, which help to ensure that our senior management team has relevant information concerning such an attack in a timely manner upon its discovery. However, we cannot assure you that such measures will provide absolute security, that we will be able to react in a timely manner, or that our remediation efforts following past or future attacks will be successful.

Outside parties have furthermore in the past, and may also in the future, attempt to fraudulently induce our subsidiaries’ employees to disclose sensitive, personal or confidential information via illegal electronic spamming, phishing or other tactics. This existing risk is compounded in the aftermath of the COVID-19 pandemic, as some of our subsidiaries have implemented in their offices a hybrid model where a large portion of their workforce spends a portion of their time working in their offices and a portion of their time working from home. Unauthorized parties may also attempt to gain physical access to our subsidiaries’ facilities in order to infiltrate their or our information systems or attempt to gain logical access to our subsidiaries’ products, services, or information systems for the purpose of exfiltrating content and data. These actual and potential breaches of our and our subsidiaries’ security measures and the accidental loss, inadvertent disclosure or unauthorized dissemination of proprietary information or sensitive, personal or confidential data about us, our subsidiaries, their employees or their customers, including the potential loss or disclosure of such information or data as a result of hacking, fraud, trickery or other forms of deception, could expose us, our subsidiaries, their employees or their customers to a risk of loss or misuse of this information. This may result in litigation and liability or fines, our or our subsidiaries’ compliance with costly and time-intensive notice requirements, governmental inquiry or oversight or a loss of customer confidence, any of which could harm our subsidiaries’ business or damage our or their brand and reputation, thereby requiring time and resources to mitigate these impacts.

In addition, we and our subsidiaries, including Sapiens, rely on third party vendors and their employees for the implementation of our solutions, which heightens our exposure to potential cyber incidents. In particular, that reliance raises the following cyber risks, among others:

- When third-party vendors handle sensitive information, they can become a target for cybercriminals who aim to steal that data.
- Third-party software or systems could introduce malware, viruses, or other malicious code into the networks of our subsidiaries, causing significant damage.
- Cybercriminals can infiltrate the supply chain of a third-party vendor to gain access to their systems and data, potentially compromising our organization as well.
- Third-party employees with access to the systems or data of any of our subsidiaries can intentionally or unintentionally cause damage or data leaks.
- Third-party vendors may not comply with data protection regulations or cybersecurity standards, which could result in legal penalties or reputational damage for us and our subsidiaries.
- If a third-party vendor experiences a cyber incident or data breach, it could interrupt its services, affecting Sapiens as well.

Our subsidiaries have invested in advanced detection, prevention and proactive systems to reduce these risks. Based on independent audits, we believe that our subsidiaries’ level of protection is in keeping with the industry standards of peer technology companies. Our subsidiaries also maintain a disaster recovery solution, as a means of assuring that a breach or cyber-attack does not necessarily cause the loss of their information. They furthermore review their protections and remedial measures periodically in order to ensure that such measures are adequate. Our subsidiaries devote resources to address security vulnerabilities through enhancing security and reliability features in their systems, code hardening, conducting rigorous penetration tests, deploying updates to address security vulnerabilities, providing resources such as mandatory security training for their workforce and improving their incident response time, but security vulnerabilities cannot be totally eliminated. The cost of these steps could reduce our subsidiaries’ or our operating margins.

Despite these protective systems and remedial measures, techniques used to obtain unauthorized access are constantly changing, are becoming increasingly more sophisticated and often are not recognized until after an exploitation of information has occurred. We and our subsidiaries may be unable to anticipate these techniques or implement sufficient preventative measures, and we therefore cannot assure you that our and our subsidiaries’ preventative measures will be successful in preventing compromise and/or disruption of our or their information technology systems and related data. We furthermore cannot be certain that our or our subsidiaries’ remedial measures will fully mitigate the adverse financial consequences of any cyber-attack or incident. If we or our subsidiaries do not make the appropriate level of investment in our or their technology systems or if such systems become out-of-date or obsolete and we or they are not able to deliver the quality of data security that meet our or their independent security control certification requirements, our consolidated business could be adversely affected.

Security vulnerabilities in our software solutions could lead to reduced revenue or to liability claims.

Maintaining the security of the software solutions and related services that we offer is a critical issue for us and our customers. Security researchers, criminal hackers and other third parties regularly develop new techniques to penetrate our customers' end points, information systems and network security measures. Cyber threats are constantly evolving and becoming increasingly sophisticated and complex, making it increasingly difficult to detect and successfully defend against them. Unauthorized parties have, in the past, infiltrated Sapiens' internal IT systems, gaining access to certain proprietary information. If they were to similarly breach the security related to, and misuse, software solutions that we offer, they might access the authentication, payment and personal information of our customers. In addition, cyber-attackers (which may include individuals or groups, as well as sophisticated groups such as nation-state and state-sponsored attackers, which can deploy significant resources to plan and carry out exploits) also develop and deploy viruses, worms, credential stuffing attack tools and other malicious software programs, some of which may be specifically designed to attack the solutions and services that we offer. Software and operating system applications that we develop have contained and may contain defects in design or manufacture, including bugs, vulnerabilities and other problems that could unexpectedly compromise the security of the software or impair a customer's ability to operate or use our solutions. The costs to prevent, eliminate, mitigate, or alleviate cyber- or other security problems, bugs, viruses, worms, malicious software programs and security vulnerabilities are significant, and our efforts to address these problems, including notifying affected parties, may not be successful or may be delayed and could result in interruptions, delays, cessation of service and loss of existing or potential customers. It is impossible to predict the extent, frequency or impact these problems may have on us.

Actual and potential breaches of our security measures and the accidental loss, inadvertent disclosure or unauthorized dissemination of proprietary information or sensitive, personal or confidential data about our customers, including the potential loss or disclosure of such information or data as a result of hacking, fraud, trickery or other forms of deception, could expose our customers to a risk of loss or misuse of this information. This may result in litigation and liability or fines, our compliance with costly and time-intensive notice requirements, governmental inquiry or oversight or a loss of customer confidence, any of which could harm our business or damage our brand and reputation, thereby requiring time and resources to mitigate these impacts.

From time to time we have identified, and in the future we may identify other, vulnerabilities in some of our solutions and services. We devote significant resources to address security vulnerabilities through engineering more secure solutions, enhancing security and reliability features in our solutions and services, code hardening, conducting rigorous penetration tests, deploying updates to address security vulnerabilities, regularly reviewing our solutions' security controls, reviewing and auditing our solutions against independent security control frameworks (such as ISO 27001, SOC 2 and PCI), providing resources such as security training for our customers' workforces and improving our incident response time, but security vulnerabilities cannot be totally eliminated. The cost of these steps could reduce our subsidiaries' or our operating margins, and we may be unable to implement these measures quickly enough to prevent cyber-attackers from gaining unauthorized access into our solutions. Despite our preventative efforts, actual or perceived security vulnerabilities in our solutions may harm our subsidiaries' or our reputation or lead to claims against our subsidiaries (and have in the past led to such claims) or us, and could lead some customers to stop using certain systems or services, to reduce or delay future purchases of solutions or services, or to use competing solutions or services. If we do not make the appropriate level of investment in our solutions or if our solutions become out-of-date or obsolete and we are not able to deliver the quality of data security our customers require, our business could be adversely affected. Customers may also adopt security measures designed to protect their existing computer systems from attack, which could delay their adoption of our new solutions. Moreover, delayed sales, lower margins or lost customers resulting from disruptions caused by cyber-attacks and implementation of preventative measures could adversely affect our financial results, share price and reputation.

Errors or defects in our software solutions could inevitably arise and harm our profitability and our reputation with customers, and could even give rise to claims against us.

The quality of our solutions, including new, modified or enhanced versions thereof, is critical to our success. Since our software solutions are complex, they may contain errors that cannot be detected at any point in their testing phase. While we continually test our solutions for errors or defects and work with customers to identify and correct them, errors in our technology may be found in the future. Quality assurance is complicated because it is difficult to simulate the breadth of operating systems, user applications and computing environments that our customers use, and our solutions themselves are increasingly complex. Errors or defects in our technology have resulted in terminated work orders and could result in delayed or lost revenue, diversion of development resources and increased services, termination of work orders, damage to our brand and warranty and insurance costs in the future. In addition, time-consuming implementations may also increase the number of services personnel we must allocate to each customer, thereby increasing our costs and adversely affecting our business, results of operations and financial condition.

In addition, since our customers rely on our solutions to operate, monitor and improve the performance of their business processes, they are sensitive to potential disruptions that may be caused by the use of, or any defects in, our software. As a result, we may be subject to claims for damages related to software errors in the future. Liability claims could require us to spend significant time and money in litigation or to pay significant damages. Regardless of whether we prevail, diversion of our subsidiaries' key employees' time and attention from our business, the incurrence of substantial expenses and potential damage to our reputation might result. While the terms of our sales contracts typically limit our exposure to potential liability claims and we carry errors and omissions insurance against such claims, there can be no assurance that such insurance will continue to be available on acceptable terms, if at all, or that such insurance will provide us with adequate protection against any such claims. A significant liability claim against us could have a material adverse effect on our business, results of operations and financial position.

Incorrect or improper use of our products or our failure to properly train customers on how to implement or utilize our products could result in customer dissatisfaction and negatively affect our business, results of operations, financial condition and growth prospects.

Some of our products are more complex than others and are deployed in a wide variety of network environments. The proper use of our solutions requires training of the customer. If our solutions are not used correctly or as intended, inadequate performance may result. Additionally, our customers or third-party partners may incorrectly implement or use our solutions. Our solutions may also be intentionally misused or abused by customers or their employees or third parties who are able to access or use our solutions. Similarly, our solutions are sometimes installed or maintained by customers or third parties with smaller or less qualified IT departments, potentially resulting in sub-optimal installation and, consequently, performance that is less than the level anticipated by the customer. Because our customers rely on our software, services and maintenance support to manage a wide range of operations, the incorrect or improper use of our solutions, our failure to properly train customers on how to efficiently and effectively use our solutions, or our failure to properly provide implementation or maintenance services to our customers, has resulted in terminated work orders and may result in termination of work orders, negative publicity or legal claims against us in the future. Also, as we continue to expand our customer base, any failure by us to properly provide these services will likely result in lost opportunities for follow-on sales of our software and services.

In addition, if there is substantial turnover of customer personnel responsible for implementation and use of our products, or if customer personnel are not well trained in the use of our products, customers may defer the deployment of our products, may deploy them in a more limited manner than originally anticipated or may not deploy them at all. Further, if there is substantial turnover of the customer personnel responsible for implementation and use of our products, our ability to make additional sales may be substantially limited.

Catastrophes may adversely impact the insurance industry, preventing us from expanding or maintaining our existing customer base and increasing our revenues.

Sapiens’ customers include insurance carriers that have experienced, and will likely experience in the future, catastrophic losses that adversely impact their businesses. Catastrophes can be caused by various events, including, amongst others, hurricanes, tsunamis, floods, windstorms, earthquakes, hail, tornados, explosions, severe weather and fires, or the spread of pandemics of disease, such as the coronavirus. Moreover, acts of terrorism or war could cause disruptions in Sapiens’ or our customers’ businesses or the economy as a whole. The risks associated with natural disasters and catastrophes are inherently unpredictable, and it is difficult to predict the timing of such events or estimate the amount of loss they will generate. In the event a future catastrophe adversely impacts Sapiens’ or our current or potential customers, they or we may be prevented from maintaining and expanding their or our customer base and from increasing their or our revenues because such events may cause customers to postpone purchases of new products and professional service engagements or discontinue projects.

The increasing amount of identifiable intangible assets and goodwill recorded on our consolidated statements of financial position may lead to significant impairment charges in the future.

The amount of goodwill and identifiable intangible assets on our consolidated balance sheet has increased significantly over the last five years from approximately $781.3 million as of December 31, 2017 to $1,148.9 million as of December 31, 2022 because of our acquisitions, and may increase further following future acquisitions. We regularly review our long-lived assets, including identifiable intangible assets and goodwill, for impairment. Goodwill and indefinite life intangible assets are subject to impairment review at least annually. Other long-lived assets are reviewed when there is an indication that impairment may have occurred. Impairment testing, subject to downturns in our operating results and financial condition, may lead to impairment charges in the future. Any significant impairment charges could have a material adverse effect on our results of operations.

Decreases in the capital markets may adversely impact the industries in which we operate, thereby preventing us from expanding or maintaining our existing customer base and increasing our revenues.

Our customers include life insurance carriers and other financial industry participants that have invested some of their funds in the capital markets. Those carriers may experience in the future major losses in those capital market investments that may cause disruptions to their businesses or to the economy as a whole. Any such major disruption, may cause those existing or potential new customers to postpone purchases of new products or professional service engagements, or discontinue existing projects, which, in turn, may prevent us from increasing our revenues, or from maintaining or expanding or our customer base.

There may be consolidation in the insurance or other markets in which we operate, which could reduce the use of our products and services and adversely affect our revenues.

Mergers or consolidations among our customers could reduce the number of our customers and potential customers. This could adversely affect our revenues even if these events do not reduce the aggregate number of customers or the activities of the consolidated entities. If our customers merge with or are acquired by other entities that are not our customers, or that use fewer of our products and services, they may discontinue or reduce their use of our products and services. Any of these developments could materially and adversely affect our results of operations and cash flows.

Our and our investees' credit facility agreements with banks and other financial institutions, and our investees' debentures, are subject to a number of restrictive covenants which, if breached, could result in acceleration of our obligation to repay our debt.

In the context of our and our subsidiaries' and affiliate's engagements with banks and other financial institutions for receiving various credit facilities and under the terms governing our Series A Secured Debentures and Series C Secured Debentures, Matrix Series B Debentures and Sapiens' non-convertible unsecured Series B Debentures, we have undertaken to comply with a number of conditions and limitations on the manner in which we can operate our business. These include limitations on our ability to undergo a change of control, distribute dividends, incur debt or a floating charge on our assets, or undergo an asset sale or other change that results in a fundamental change in our operations. These credit facilities, agreements and deed of trusts that we have entered into with the trustees for the holders of each of our debentures also require us to comply with certain financial covenants. Those covenants include maintenance of certain financial ratios related to shareholders' equity, total rate of debt and liabilities, minimum outstanding balance of total cash and short-term investments, and operating results that are customary for companies of comparable size, and maintenance of a minimum rating level for the debentures. These limitations and covenants may force us to pursue less than optimal business strategies or forego business arrangements which could have been financially advantageous to us and, by extension, to our shareholders. The deeds of trust of each of our debentures furthermore provides for an upwards adjustment in the interest rate payable under the debentures in the event that our debentures' rating is downgraded below a certain level. A breach of the financial covenants for more than two successive quarters or a substantial downgrade in the rating of any of our debentures (below BBB-) would constitute an event of default that could result in the acceleration of our obligation to repay the debentures, which accelerated repayment may be difficult for us to effect. In addition, the Formula Series A Secured Debentures and Series C Secured Debentures are secured by certain of the shares of Formula's publicly held subsidiaries— Matrix, Sapiens and Magic Software. A breach of the restrictive covenants could result in the acceleration of our obligations to repay Formula's or its subsidiaries' debt.

To the extent it returns in a significant manner in regions in which our or our subsidiaries' revenues are primarily generated, including in India where many of Sapiens' employees are located, the global COVID-19 pandemic, or any other pandemic, may adversely affect our operating results in a material manner.

Wide-spread viruses and epidemics, such as the recent COVID-19 pandemic, to the extent it returns in full-force, could negatively affect our customers' spending on our products and services. For example, with respect to Sapiens, in 2022, 41.6%, 13.6%, 35.5% and 9.3% of its revenues were generated from North America, the United Kingdom, the rest of Europe and the rest of the world, respectively. With respect to Magic Software, in 2022, 54.4%, 36.2%, 6.9% and 2.5% of its revenues were generated from North America, Israel, Europe and the rest of the world, respectively. In addition, a significant portion of our revenue are generated from customers in the financial services industry, including banking and insurance. Negative economic conditions created by a pandemic may cause its customers in general, and in that industry in particular, to reduce their IT spending. In general, our customers may delay or cancel projects, choose to focus on in-house development efforts or seek to lower their costs by renegotiating maintenance and support agreements. Additionally, customers may be more likely to make late payments in worsening economic conditions, which could require us to increase our collection efforts and incur additional associated costs to collect expected revenues. Moreover, with respect to Sapiens, to the extent that the purchase of licenses for its software are perceived by customers and potential customers to be discretionary, its revenues may be disproportionately affected by delays or reductions in general IT spending. If economic conditions generally, or in the industries in which we operate specifically, worsen from present levels, the results of our operations could be adversely affected.

To the extent the COVID-19 pandemic returns in full-force, in any wave or via any variant of the virus, including in India, where a significant percentage of Sapiens' worldwide employees are located, that may also adversely impact our operating results, as the resulting closures, restrictions and health problems for our workers may compromise our ability to service our customers in various regions of the world.

Risks Related to Intellectual Property

Assertions by third parties of infringement or other violation by us of their intellectual property rights could result in significant costs and substantially harm our business and results of operations.

The software industry is characterized by the existence of a large number of patents and frequent claims and related litigation regarding patents and other intellectual property rights. In particular, leading companies in the software industry own large numbers of patents, copyrights, trademarks and trade secrets, which they may use to assert claims against us. From time to time, third parties, including certain of these leading companies, may assert patent, copyright, trademark or other intellectual property claims against us, our customers and partners, and those from whom we license technology and intellectual property.

Although we believe that our products and services do not infringe upon the intellectual property rights of third parties, we cannot assure you that third parties will not assert infringement or misappropriation claims against us with respect to current or future products or services, or that any such assertions will not require us to enter into royalty arrangements or result in costly litigation, or result in us being unable to use certain intellectual property. We cannot assure you that we are not infringing or otherwise violating any third party intellectual property rights. Infringement assertions from third parties may involve patent holding companies or other patent owners who have no relevant product revenues, and therefore our own issued and pending patents may provide little or no deterrence to these patent owners in bringing intellectual property rights claims against us.

Any intellectual property infringement or misappropriation claim or assertion against us, our customers or partners, and those from whom we license technology and intellectual property could have a material adverse effect on our business, financial condition, reputation and competitive position regardless of the validity or outcome. If we are forced to defend against any infringement or misappropriation claims, whether they are with or without merit, are settled out of court, or are determined in our favor, we may be required to expend significant time and financial resources on the defense of such claims. Furthermore, an adverse outcome of a dispute may require us to pay damages, potentially including treble damages and attorneys’ fees, if we are found to have willfully infringed on a party’s intellectual property; cease making, licensing or using our products or services that are alleged to infringe or misappropriate the intellectual property of others; expend additional development resources to redesign our products or services; enter into potentially unfavorable royalty or license agreements in order to obtain the right to use necessary technologies or works; and to indemnify our partners, customers, and other third parties. Royalty or licensing agreements, if required or desirable, may be unavailable on terms acceptable to us, or at all, and may require significant royalty payments and other expenditures. Any of these events could seriously harm our business, results of operations and financial condition. In addition, any lawsuits regarding intellectual property rights, regardless of their success, could be costly to resolve and divert the time and attention of our management and technical personnel.

Although we apply measures to protect our intellectual property rights and our source code, there can be no assurance that the measures that we employ to do so will be successful.

In accordance with industry practice, we rely on a combination of contractual provisions and intellectual property law to protect our proprietary technology. We believe that due to the dynamic nature of the computer and software industries, copyright protection is less significant than factors such as the knowledge and experience of our management and personnel, the frequency of product enhancements and the timeliness and quality of our support services. We seek to protect the source code of our products as trade secret information and as unpublished copyright works. We also rely on security and copy protection features in our proprietary software. We distribute our products under software license agreements that grant customers a personal, non-transferable license to use our products and contain terms and conditions prohibiting the unauthorized reproduction or transfer of our products. In addition, while we attempt to protect trade secrets and other proprietary information through non-disclosure agreements with employees, consultants and distributors, not all of our employees have signed invention assignment agreements. Although we intend to protect our rights vigorously, there can be no assurance that these measures will be successful. Our failure to protect our rights, or the improper use of our products by others without licensing them from us could have a material adverse effect on our results of operations and financial condition.

We and our customers rely on technology and intellectual property of third parties, the loss of which could limit the functionality of our products and disrupt our business.

We use technology and intellectual property licensed from unaffiliated third parties in certain of our products, and we may license additional third-party technology and intellectual property in the future. Any errors or defects in this third-party technology and intellectual property could result in errors that could harm our brand and business. In addition, licensed technology and intellectual property may not continue to be available on commercially reasonable terms, or at all. The loss of the right to license and distribute this third party technology could limit the functionality of our products and might require us to redesign our products. Further, although we believe that there are currently adequate replacements for the third-party technology and intellectual property we presently use and distribute, the loss of our right to use any of this technology and intellectual property could result in delays in producing or delivering affected products until equivalent technology or intellectual property is identified, licensed or otherwise procured, and integrated. Our business would be disrupted if any technology and intellectual property we license from others or functional equivalents of this software were either no longer available to us or no longer offered to us on commercially reasonable terms. In either case, we would be required either to attempt to redesign our products to function with technology and intellectual property available from other parties or to develop these components ourselves, which would result in increased costs and could result in delays in product sales and the release of new product offerings. Alternatively, we might be forced to limit the features available in affected products. Any of these results could harm our business and impact our results of operations.

We could be required to provide the source code of our products to our customers.

Some of our customers have the right to require the source code of our products to be deposited into a source code escrow. Under certain circumstances, our source code could be released to our customers. The conditions triggering the release of our source code vary by customer. A release of our source code would give our customers access to our trade secrets and other proprietary and confidential information which could harm our business, results of operations and financial condition. A few of our customers have the right to use the source code of some of our products based on the license agreements signed with such clients (mostly with respect to older versions of our solutions), although such use is limited for specific matters and cases, these clients are exposed to some of our trade secrets and other proprietary and confidential information which could harm us.

Some of our services and technologies may use "open source" software, which may restrict how we use or distribute our services or require that we release the source code of certain products subject to those licenses.

Some of our services and technologies may incorporate software licensed under so-called "open source" licenses, including, but not limited to, the GNU General Public License and the GNU Lesser General Public License. In addition to risks related to license requirements, usage of open source software can lead to greater risks than use of third-party commercial software, as open source licensors generally do not provide warranties or controls on origin of the software. Additionally, open source licenses typically require that source code subject to the license be made available to the public and that any modifications or derivative works to open source software continue to be licensed under open source licenses. These open source licenses typically mandate that proprietary software, when combined in specific ways with open source software, become subject to the open source license. If we combine our proprietary software with open source software, we could be required to release the source code of our proprietary software.

We take steps to ensure that our proprietary software is not combined with, and does not incorporate, open source software in ways that would require our proprietary software to be subject to an open source license. However, few courts have interpreted open source licenses, and the manner in which these licenses may be interpreted and enforced is therefore subject to some uncertainty. Additionally, we rely on multiple software programmers to design our proprietary technologies, and although we take steps to prevent our programmers from including open source software in the technologies and software code that they design, write and modify, we do not exercise complete control over the development efforts of our programmers and we cannot be certain that our programmers have not incorporated open source software into our proprietary products and technologies or that they will not do so in the future. In the event that portions of our proprietary technology are determined to be subject to an open source license, we could be required to publicly release the affected portions of our source code, re-engineer all or a portion of our technologies, or otherwise be limited in the licensing of our technologies, each of which could reduce or eliminate the value of our services and technologies and materially and adversely affect our business, results of operations and prospects.

Risks Relating to Our International Operations

Our international operations expose us to risks associated with fluctuations in foreign currency exchange rates that have been adversely affecting, and could continue to adversely affect, our business.

Many of our subsidiaries derive revenues from international operations that are conducted in local currencies. Those operations are conducted in currencies that include the U.S. dollar, British pound sterling, or GBP, Euro, NIS, Danish Krone, or DKK, and Swedish Krona, or SEK.

In some territories, like in Israel, India, and Poland, our cost of operations in local currency is higher than the revenues derived from such operations. In other territories, such as in the United Kingdom and Europe, revenues are higher than our cost of operations in local currency. Because exchange rates between the NIS, GBP, Euro, Indian Rupee, or INR, and the Polish Zloty, or PLN, against the US dollar fluctuate continuously, exchange rate fluctuations and especially larger periodic devaluations could negatively affect our revenue and profitability. In 2022, the GBP and Euro depreciated relative to the U.S. dollar by 14% and 13% (based on the average exchange rates over the course of 2022 as compared to 2021), respectively, thereby decreasing the U.S. dollar value of the revenues that we generated in those other currencies and having a material adverse impact on our revenues and results of operations. Any continuation of that trend in future periods would have a similar adverse impact.

In certain locations, we engage in currency-hedging transactions intended to reduce the effect of fluctuations in foreign currency exchange rates on our financial position and results of operations. However, there can be no assurance that any such hedging transactions will materially reduce the effect of fluctuation in foreign currency exchange rates on such results. In addition, if for any reason exchange or price controls or other restrictions on the conversion of foreign currencies were imposed, our financial position and results of operations could be adversely affected. For additional information relating to the exchange rates between different relevant currencies, see "Item 5. Operating and Financial Review and Prospects— Overview— Our Functional and Reporting Currency."

Our international sales and operations subject us to additional risks that can adversely affect our business, results of operations and financial condition.

We are continuing to expand our international operations as part of our growth strategy. In fiscal years 2022 and 2021, approximately 39% and 37%, respectively, of our revenues were derived from outside of Israel. Our current international operations and our plans to further expand our international operations subject us to a variety of risks, including:

- Increased exposure to fluctuations in foreign currency exchange rates.
- Increased exposure to global macroeconomic headwinds being caused by inflation and rising interest rates.
- Complexity in our tax planning, and increased exposure to changes in tax regulations in various jurisdictions in which we operate, which could adversely affect our operating results and hinder our ability to conduct effective tax planning.
- Increased management, travel, infrastructure and legal compliance costs associated with having multiple international operations.
- Longer payment cycles and difficulties in enforcing contracts and collecting accounts receivable.
- The need to localize our products and licensing programs for international customers.
- Lack of familiarity with and unexpected changes in foreign regulatory requirements.
- The burden of complying with a wide variety of foreign laws and legal standards.
- Compliance with the U.S. Foreign Corrupt Practices Act of 1977, as amended, or FCPA, particularly in emerging market countries.
- Import and export license requirements, tariffs, taxes and other trade barriers.
- Increased financial accounting and reporting burdens and complexities.
- Weaker protection of intellectual property rights in some countries.
- Multiple and possibly overlapping tax regimes.
- Political, social and economic instability abroad, terrorist attacks and general security concerns.

As we continue to expand our business globally, our success will depend, in large part, on our ability to anticipate and effectively manage these and other risks associated with our international operations. Any of these risks could harm our international operations and reduce our international sales, adversely affecting our business, results of operations, financial condition and growth prospects.

International operations in the insurance industry, in which a significant portion of our business is concentrated, are accompanied by additional costs related to adaptation to regulations in specific territories.

As we seek to expand the marketing and offering of our products into new territories, because insurance regulations vary by legal jurisdiction, the investment required to adapt our solutions to the legal and language requirements of such territories may prevent or delay us from effectively expanding into such territories. Such adaptation process requires the retention of new, additional skilled personnel with knowledge of the particular market and applicable regulatory regime. Such skilled personnel may not be available at a reasonable cost relative to the additional revenues that we expect to recognize in those territories or may not be available at all. However, since insurance carriers are regularly required to adopt their systems and software to comply with the changing regulations, this provides an additional revenue source for Sapiens by providing related services for compliance.

Our business may be materially affected by changes to fiscal and tax policies. Potentially negative or unexpected tax consequences of these policies, or the uncertainty surrounding their potential effects, could adversely affect our results of operations and share price.

As a multinational corporation, we are subject to income taxes, withholding taxes and indirect taxes in numerous jurisdictions worldwide. Significant judgment and management attention and resources are required in evaluating our tax positions and our worldwide provision for taxes. In the ordinary course of business, there are many activities and transactions for which the ultimate tax determination is uncertain. In addition, our tax obligations and effective tax rates could be adversely affected by changes in the relevant tax, accounting, and other laws, regulations, principles and interpretations. This may include recognizing tax losses or lower than anticipated earnings in jurisdictions where we have lower statutory rates and higher than anticipated earnings in jurisdictions where we have higher statutory rates, changes in foreign currency exchange rates, or changes in the valuation of our deferred tax assets and liabilities.

We may be audited in various jurisdictions, and such jurisdictions may assess additional taxes against us. If we experience unfavorable results from one or more such tax audits, there could be an adverse effect on our tax rate and therefore on our net income. Although we believe our tax estimates are reasonable, the final determination of any tax audits or litigation could be materially different from our historical tax provisions and accruals, which could have a material adverse effect on our operating results or cash flows in the period or periods for which a determination is made. Additionally, we are subject to transfer pricing rules and regulations, including those relating to the flow of funds between us and our affiliates, which are designed to ensure that appropriate levels of income are reported in each jurisdiction in which we operate.

As we continue to expand our business in emerging markets, such as India, we face increasing challenges that could adversely impact our results of operations, reputation and business.

Approximately 46% of our subsidiary Sapiens’ employees are currently located in India. Our significant presence in India, in particular Sapiens’ Research & Development personnel and Sapiens’ personnel for the delivery of its professional services, poses a number of challenges. These challenges are related to more volatile economic conditions, poor protection of intellectual property, inadequate protection against crime (including counterfeiting, corruption and fraud), lack of due process, and inadvertent breaches of local laws or regulations. In addition, local business practices may be inconsistent with international regulatory requirements, such as anti-corruption and anti-bribery laws and regulations (including the U.S. Foreign Corrupt Practices Act and the U.K. Bribery Act) to which we are subject. It is possible that some of our employees, subcontractors, agents or partners may violate such legal and regulatory requirements, which may expose us to criminal or civil enforcement actions, including penalties and suspension or disqualification from U.S. federal procurement contracting. If we fail to comply with such legal and regulatory requirements, our business and reputation may be harmed.

Conducting business in India involves unique challenges, including potential political instability; threats of terrorism; the transparency, consistency and effectiveness of business regulation; corruption; the protection of intellectual property; and the availability of sufficient qualified local personnel. Any of these or other challenges associated with operating in India may adversely affect our business or operations. Terrorist activity in India and Pakistan has contributed to tensions between those countries and our operations in India may be adversely affected by future political and other events in the region.

Risks Related to our Traded Securities and Consolidated Holdings

There is limited trading volume for our ADSs and ordinary shares, which reduces liquidity for our shareholders, and may furthermore cause the stock price to be volatile, all of which may lead to losses by investors.

There has historically been limited trading volume for our ADSs and ordinary shares, respectively, both on the Nasdaq Global Select Market and the TASE, as well as for our publicly traded investees Matrix (whose shares are traded on the TASE) and Sapiens and Magic Software (whose shares are both traded on the Nasdaq Global Select Market and the TASE), such that trading has still not reached the level that enables shareholders to freely sell their shares in substantial quantities on an ongoing basis and thereby readily achieve liquidity for their investment. As a further result of the limited volume, our or our publicly traded investees ordinary or common shares have experienced significant market price volatility in the past and may experience significant market price and volume fluctuations in the future, in response to factors such as announcements of developments related to our investees businesses, announcements by competitors of our investees, quarterly fluctuations in our financial results and general conditions in the industry in which we through our investees compete.

The market price of our ordinary shares and ADSs may be volatile and you may not be able to resell your shares at or above the price you paid, or at all.

The stock market in general has experienced during recent years extreme price and volume fluctuations. The market prices of securities of technology companies have been extremely volatile and have experienced fluctuations that have often been unrelated or disproportionate to the operating performance of those companies. These broad market fluctuations have affected and are expected to continue to affect the market price of our ordinary shares and ADSs.

The high and low closing market price of our ordinary shares traded on the TASE, under the symbol “FORTY,” and the high and low closing market price of our ADSs traded on the Nasdaq Global Select Market under the symbol “FORTY,” during each of the last five years, plus the early part of 2023, are summarized in the table below:

	Nasdaq		**Tel Aviv Stock Exchange***			
	In USD$		**In NIS**		**In USD$**	
Year	**High**	**Low**	**High**	**Low**	**High**	**Low**
2023(**)	82.55	60.67	280.10	222.30	81.95	60.95
2022	121.8	70.89	380.60	250.00	123.05	70.94
2021	125.78	80.10	382.50	264.40	123.83	82.99
2020	89.00	36.75	310.00	148.90	89.16	39.79
2019	73.68	35.64	258.00	135.00	74.20	36.08
2018	44.95	32.57	156.40	117.70	43.65	33.72

(*) The U.S. dollar price of our ordinary shares on the Tel Aviv Stock Exchange was determined by dividing the closing price of an ordinary share in NIS on the relevant date by the representative exchange rate of the NIS against the U.S. dollar as reported by the Bank of Israel on the same date.

(**) From January 1, 2023 through April 30, 2023.

The market price of our ordinary shares and ADSs may fluctuate substantially due to a variety of factors, including:

- any actual or anticipated fluctuations in our or our competitors’ quarterly revenues and operating results;
- industry trends and changes;
- changes in expectations as to our future financial performance, including financial estimates by securities analysts and investors;
- public announcements concerning us or our competitors;
- results of integrating investments and acquisitions;
- the introduction or market acceptance of new service offerings by us or our competitors;
- changes in product pricing policies by us or our competitors;
- public announcements concerning distribution of dividends and payment of dividends;
- the public’s response to our press releases, our other public announcements and our filings with the SEC and the Israeli Securities Authority;
- changes in accounting principles;
- sales of our shares by existing shareholders;
- the loss of any of our key personnel;
- other events or factors in any of the markets in which we operate, including those resulting from war, incidents of terrorism, natural disasters or responses to such events; and
- general trends of the stock markets.

In addition, global and local economic, political, market and industry conditions and military conflicts and in particular, those specifically related to the State of Israel, may affect the market price of our ordinary shares and ADSs.

Significant fluctuations in our annual and quarterly results, which make it difficult for investors to make reliable period-to-period comparisons, may also contribute to volatility in the market price of our ordinary shares and American Depositary Shares.

Our quarterly and annual revenues, gross profit, net income and results of operations have fluctuated significantly in the past, and we expect them to continue to fluctuate significantly in the future. The following events may cause fluctuations:

- general global economic conditions;
- acquisitions and dispositions;
- the size, time and recognition of revenue from significant contracts;
- timing of product releases or enhancements;
- timing of contracts;
- timing of completion of specified milestones and delays in implementation;
- changes in the proportion of service and license revenues;
- price and product competition;
- market acceptance of our new products, applications and services;
- increases in selling and marketing expenses, as well as other operating expenses;
- currency exchange rate fluctuations; and
- consolidation of our customers.

A substantial portion of our expenses, including most product development and selling and marketing expenses must be incurred in advance of when revenue is generated. If our projected revenue does not meet our expectations, we are likely to experience an even larger shortfall in our operating profit relative to our expectations. The gross margins of our individual subsidiaries vary both among themselves and over time. As a result, changes in the revenue mix from these subsidiaries may affect our quarterly operating results. In addition, we may derive a significant portion of our net income from the sale of our investments or the sale of our proprietary software technology. These events do not occur on a regular basis and their timing is difficult to predict. As a result, we believe that period-to-period comparisons of our historical results of operations are not necessarily meaningful and that you should not rely on them as an indication for future performance. Also, it is possible that our quarterly and annual results of operations may be below the expectations of public market analysts and investors. If this happens, the prices of our ordinary shares and ADSs will likely decrease.

The market prices of our ordinary shares and ADSs may be adversely affected if the market prices of our publicly traded investees decrease.

A significant portion of our assets is comprised of equity securities of directly held publicly traded companies. Our publicly traded investees are currently Matrix, Sapiens and Magic Software. The share prices of these publicly traded companies have been extremely volatile and have been subject to fluctuations due to market conditions and other factors which are often unrelated to operating results and which are beyond our control. Fluctuations in the market price and valuations of our holdings in these companies may affect the market’s valuation of the price of our ordinary shares and ADSs and may also thereby impact our results of operations. If the value of our assets decreases significantly as a result of a decrease in the value of our interest in our publicly traded investees, our business, operating results and financial condition may be materially and adversely affected and the market price of our ordinary shares and ADSs may also fall as a result.

Our securities are traded on more than one market and this may result in price variations.

Formula’s ordinary shares are traded on the TASE and its ADSs are traded on the Nasdaq Global Select Market. Trading in those ordinary shares and ADSs on those markets takes place in different currencies (dollars on the Nasdaq Global Select Market and NIS on the TASE), and at different times (resulting from different time zones, different weekly trading days and different public holidays in the United States and Israel). The trading prices of our ordinary shares and ADSs on these two markets may differ due to these and other factors (see the risk factor titled “The market price of our ordinary shares and ADSs may be volatile and you may not be able to resell your shares at or above the price you paid, or at all” above for data related to the differences in trading prices on Nasdaq as compared to on the TASE). On the other hand, any decrease in the trading price of our ordinary shares or ADSs, as applicable, on one of these markets could likely affect— and cause a decrease in— the trading price on the other market.

Our largest shareholder, Asseco Poland S.A., can significantly influence the outcome of matters that require shareholder approval.

Asseco Poland S.A., or Asseco, our largest shareholder, currently owns approximately 25.6% of our outstanding share capital and therefore has effective voting power over in excess of one-quarter of our outstanding ordinary shares (which excludes shares that we have repurchased that lack voting rights and shares subject to restrictions that are voted in proportion to the votes of our other shares). Therefore, Asseco can significantly influence the outcome of those matters requiring shareholder approval, including the election of directors and approval of significant corporate transactions. This voting power may have the effect of delaying or preventing a change in control which may otherwise be favorable to our minority shareholders. In addition, potential conflicts of interest may arise in the event that we or any of our investees enters into any agreements or transactions with affiliates of Asseco. Although Israeli law imposes certain procedures (including the requirement to obtain shareholder approval, which in certain cases includes a “majority of the minority”) for approval of certain related party transactions, we cannot assure you that these procedures will eliminate the possible detrimental effects of these conflicts of interest. If certain transactions are not approved in accordance with required procedures under applicable Israeli law, these transactions may be void or voidable.

If we are unable to maintain effective internal control over financial reporting in accordance with Sections 302 and 404(a) of the Sarbanes-Oxley Act of 2002, the reliability of our financial statements may be questioned and our share price may suffer.

We are subject to a range of requirements relating to internal controls over financial reporting. Despite our internal control measures, we may still be subject to financial reporting errors or even fraud, which may not be detected. A control system, which is increasingly based on computerized processes, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that its objectives are met. In addition, the benefit of each control must be considered relative to its cost, and the design of a control system must reflect such reasonable resource constraints. Implementation of changes or updates to our control systems, including implementation of our investees enterprise resource planning (ERP) systems at additional sites, may encounter unexpected difficulties. These inherent limitations include the realities that judgments in decision-making can be faulty and that breakdowns can occur because of simple error or mistake. Further, controls can be circumvented by individual acts, by collusion of two or more persons or by management override of the controls. Over time, a control may be inadequate because of changes in conditions or the degree of compliance with applicable policies or procedures may deteriorate. Failure to maintain effective internal control over financial reporting could result in investigation or sanctions by regulatory authorities, and could adversely affect our operating results, investor confidence in our reported financial information and the market price of our ordinary shares and ADSs.

Further to that risk, as part of its assessment of the adequacy of internal controls over financial reporting for the year ended December 31, 2022, the management of one of our subsidiaries, Magic Software, identified a material weakness in its internal control over financial reporting, whereas, Magic Software management team determined that Magic Software did not have adequate trained resources to retain sufficient and precise documentation as evidence for performing business processes controls (including automated and IT-dependent manual), management review controls, and evidence to demonstrate completeness and accuracy of information prepared by entity (“IPE”). As a result, Magic Software could not monitor and oversee the completion of its assessment of the design and operating effectiveness of internal control over financial reporting in a timely manner. These inadequacies led to the conclusion that Magic Software’s disclosure controls and procedures were not effective, and that there was a material weakness in Magic Software’s internal control over financial reporting, as of December 31, 2022. In light of that conclusion, Magic Software’s management has expressed its commitment to the remediation of the foregoing material weakness, as well as the continued improvement of Magic Software’s internal control over financial reporting. The subject inadequacies did not rise to a sufficiently material level to cause our consolidated internal controls over financial reporting to be deemed deficient, given Magic Software’s size relative to that of the consolidated Group. Nevertheless, if management of Magic Software or any of our other subsidiaries or investees were to discover additional deficiencies in internal controls that would rise, individually or in the aggregate, above the threshold of materiality for our consolidated Group, that could cause (i) a loss in the reliability of, or (ii) the potential required restatement of, our financial statements, or (iii) investigation or sanctions by regulatory authorities, among other potential adverse consequences, and could cause a decrease in the trading price of our ordinary shares and ADSs.

The enactment of legislation implementing changes in taxation of international business activities, the adoption of other corporate tax reform policies, or changes in tax legislation or policies could impact our future financial position and results of operations.

There can be no assurance that our effective tax rate of 23% for the year ended December 31, 2022 will not change over time as a result of changes in corporate income tax rates or other changes in the tax laws the jurisdictions in which we operate. Any changes in tax laws could have an adverse impact on our financial results. Corporate tax reform, base-erosion efforts and tax transparency continue to be high priorities in many tax jurisdictions where we have business operations. As a result, policies regarding corporate income and other taxes in numerous jurisdictions are under heightened scrutiny and tax reform legislation is being proposed or enacted in a number of jurisdictions.

For example, there is growing pressure in many jurisdictions and from multinational organizations such as the Organization for Economic Cooperation and Development (OECD) and the EU to amend existing international taxation rules in order to align the tax regimes with current global business practices. Specifically, in October 2015, the OECD published its final package of measures for reform of the international tax rules as a product of its Base Erosion and Profit Shifting (BEPS) initiative, which was endorsed by the G20 finance ministers. Many of the initiatives in the BEPS package required and resulted in specific amendments to the domestic tax legislation of various jurisdictions and to existing tax treaties. We continuously monitor these developments. Although many of the BEPS measures have already been implemented or are currently being implemented globally (including, in certain cases, through adoption of the OECD’s “multilateral convention” (to which Israel is also a party) to effect changes to tax treaties which entered into force on July 1, 2018 and through the European Union’s “Anti Tax Avoidance” Directives), it is still difficult in some cases to assess to what extent these changes our tax liabilities in the jurisdictions in which we conduct our business or to what extent they may impact the way in which we conduct our business or our effective tax rate due to the unpredictability and interdependency of these potential changes. In January 2019, the OECD announced further work in continuation of the BEPS project, focusing on two “pillars.” On October 8, 2021, 136 countries approved a statement known as the OECD BEPS Inclusive Framework, which builds upon the OECD’s continuation of the BEPS project. The first pillar is focused on the allocation of taxing rights between countries for in-scope large multinational enterprises (with revenue in excess of Euro 20 Billion and profitability of at least 10%) that sell goods and services into countries with little or no local physical presence. We do not expect to be within the scope of the first Pillar. The second pillar is focused on developing a global minimum tax rate of at least 15 percent applicable to in-scope multinational enterprises (with revenue in excess of Euro 750 million). Israel is one of the 136 jurisdictions that has agreed in principle to the adoption of the global minimum tax rate. Given these developments, it is generally expected that tax authorities in various jurisdictions in which we operate may increase their audit activity and may seek to challenge some of the tax positions we have adopted. It is difficult to assess if and to what extent such challenges, if raised, might impact our effective tax rate.

Further, there are proposals in the United States to introduce further amendments to the federal tax regime applicable to corporations. As of the date of filing, it remains unclear what legislation, if any, would be enacted. If the draft legislation currently being discussed is enacted, it could create the potential for added volatility in our provision for income taxes and might have an adverse impact on our future income tax provision and tax rate.

Risks Related to Operations in Israel and Other Specific Geographic Locations

Political, economic, and military conditions in Israel could negatively impact our business.

We are incorporated under the laws of, and our headquarters and principal research and development facilities are located in the State of Israel. Additionally, the corporate headquarters of some of our subsidiaries, as well as directors, executives, and a portion of employees (including key employees), are located in or residents of Israel. In 2021 and 2022, respectively, approximately 63% and 61% of our consolidated revenues were generated from the Israeli market. As a result, political, economic and military conditions in Israel and the Middle East directly affect our operations. Since the establishment of the State of Israel, a number of armed conflicts have taken place between Israel and its Arab neighbors. Any armed conflicts, terrorist activities or political instability in the region could adversely affect business conditions, harm our results of operations and make it more difficult for us to raise capital.

Although the recent Abraham Accords have enhanced Israel’s relations with certain countries in the Middle East, an ongoing state of hostility, varying in degree and intensity, has caused security and economic problems for Israel. In addition, several countries still restrict business with Israel and with companies doing business in Israel. These political, economic and military conditions in Israel—if adverse— as well as the foregoing business restrictions, could have a material adverse effect on our business, financial condition, results of operations and future growth.

Conflicts in North Africa and the Middle East, including in Syria, which borders Israel, have resulted in continued political uncertainty and violence in the region. Efforts to improve Israel’s relationship with the Palestinian Authority have failed to result in a permanent solution, and there have been numerous periods of hostility in recent years during which Hamas, a terrorist group that controls the Gaza Strip, has attacked Israel with rockets. In addition, Iran continues to take a hostile stance towards Israel, having proceeded with development of a nuclear program and having promised the destruction of Israel periodically. Such instability may affect the economy, could negatively affect business conditions and, therefore, could adversely affect our operations. To date, these matters have not had any material effect on our business and results of operations; however, the regional security situation and worldwide perceptions of it are outside our control and there can be no assurance that these matters will not negatively affect our business, financial condition and results of operations in the future.

Many of our employees (including executive officers) in Israel are obligated to perform military reserve duty, currently consisting of approximately 30 days of service annually (or more for reserves officers or non-officers with certain expertise). Additionally, these employees are subject to being called to active duty at any time upon the outbreak of hostilities. While we have operated effectively under these requirements, no assessment can be made as to the full impact of these requirements on our business or work force and no prediction can be made as to the effect on us of any expansion of these obligations.

In addition to security concerns, the Israeli government is currently pursuing certain changes to Israel’s judicial system and legislation. In response to the foregoing proposed changes, some individuals, organizations and institutions, both within and outside of Israel, have commented that the proposed changes may negatively impact the business environment in Israel, including due to increased currency fluctuations and downgrades in credit rating. On April 14, 2023, Moody’s downgraded Israel’s credit outlook from positive to stable, however it maintained an A1 rating on Israel’s overall credit rating. Such negative developments may have an adverse effect on our business and results of operations.

As some of our revenues are derived from the Israeli government sector, a reduction of government spending in Israel on IT services may reduce our revenues and profitability; and any delay in the annual budget approval process may negatively impact our cash flows.

Our Matrix and Magic Software subsidiaries perform work for a wide range of Israeli governmental agencies and related subcontractors. Any reduction or elimination for political or economic reasons (such as in the case of COVID-19) of total Israeli government spending may reduce our revenues and profitability. In addition, the Government of Israel has experienced significant delays in the approval of its annual budget in recent years. Such delays in the future could negatively affect our cash flows by delaying the receipt of payments from the government of Israel for services performed.

Political relations could limit our ability to sell or buy internationally

We could be adversely affected by the interruption or reduction of trade between Israel and its trading partners. Some countries, companies and organizations continue to participate in a boycott of Israeli firms, other firms doing business with Israel as well as Israeli-owned companies operating in other countries. There can be no assurance that restrictive laws, policies or practices directed towards Israel or Israeli businesses will not have an adverse impact on our business.

Israel's economy may become unstable.

From time to time Israel's economy may experience inflation or deflation, low foreign exchange reserves, fluctuations in world commodity prices, military conflicts, civil and political unrest and budgetary constraints. For these and other reasons, in the past the government of Israel has intervened in the economy employing fiscal and monetary policies, import duties, foreign currency restrictions, controls of wages, prices and foreign currency exchange rates and regulations regarding the lending limits of Israeli banks to companies considered to be in an affiliated group. The Israeli government has periodically changed its policies in these areas. Recurrence of previous destabilizing factors could make it more difficult for us to operate our business as we have in the past and could adversely affect our business.

Our business may be materially affected by changes to fiscal and tax policies. Potentially negative or unexpected tax consequences of these policies, or the uncertainty surrounding their potential effects, could adversely affect our results of operations and share price.

As a multinational Group, we are subject to income taxes, withholding taxes and indirect taxes in numerous jurisdictions worldwide. Significant judgment and management attention and resources are required in evaluating our tax positions and our worldwide provision for taxes. In the ordinary course of business, there are many activities and transactions for which the ultimate tax determination is uncertain. In addition, our tax obligations and effective tax rates could be adversely affected by changes in the relevant tax, accounting, and other laws, regulations, principles and interpretations. This may include recognizing tax losses or lower than anticipated earnings in jurisdictions where we have lower statutory rates and higher than anticipated earnings in jurisdictions where we have higher statutory rates, changes in foreign currency exchange rates, or changes in the valuation of our deferred tax assets and liabilities.

We may be audited in various jurisdictions, and such jurisdictions may assess additional taxes against us. If we experience unfavorable results from one or more such tax audits, there could be an adverse effect on our tax rate and therefore on our net income. Although we believe our tax estimates are reasonable, the final determination of any tax audits or litigation could be materially different from our historical tax provisions and accruals, which could have a material adverse effect on our operating results or cash flows in the period or periods for which a determination is made. Additionally, we and our subsidiaries are subject to transfer pricing rules and regulations, including those relating to the flow of funds between each of us and our respective affiliates, which are designed to ensure that appropriate levels of income are reported in each jurisdiction in which we operate.

The tax benefits that will be available to certain of our Israeli subsidiaries and our Israeli affiliate will require us to continue to meet various conditions and may be terminated or reduced in the future, which could increase our costs and taxes.

Some of our Israeli subsidiaries derive and expect to continue to derive significant benefits from various programs, including Israeli tax benefits relating to our "Preferred Technological Enterprise", or PTE, and our "Special Preferred Technological Enterprise," or SPTE, programs. To be eligible for tax benefits as a PTE or SPTE, these Israeli subsidiaries must continue to meet certain conditions including, with respect to Sapiens, consolidated group revenue at the level of Asseco (its and our controlling shareholder) of at least NIS 10 billion. If they do not meet the conditions stipulated in the Israeli Law for the Encouragement of Capital Investments, 5719-1959, or the Investment Law and the regulations promulgated thereunder, as amended, for the PTE, any of the associated tax benefits may be cancelled and they would be required to repay the amount of such benefits, in whole or in part, including interest and consumer price index, or CPI, linkage (or other monetary penalties). Further, in the future these tax benefits may be reduced or discontinued. While we believe that certain of our Israeli subsidiaries have met and continue to meet the conditions that entitle then to previously-obtained Israeli tax benefits, there can be no assurance that the Israeli Tax Authority will agree (for example, with respect to Sapiens, in case the overall revenue at the Asseco group level is lower than NIS 10 billion, or if Asseco no longer controls Sapiens).

The Israeli government grants that Sapiens, one of our subsidiaries, has received require it to meet several conditions and restrict its ability to manufacture products and transfer know-how developed using such grants outside of Israel and require it to satisfy specified conditions.

One of our Israeli subsidiaries (an Israeli subsidiary of Sapiens) received grants in the past from the government of Israel through the Israeli National Authority for Technological Innovation, or the Innovation Authority (formerly operating as Office of the Chief Scientist of the Ministry of Economy of the State of Israel, or the OCS), for the financing of a portion of its research and development expenditures in Israel with respect to Sapiens legacy technology. In consideration for receiving grants from the Innovation Authority, that subsidiary is obligated to pay the Innovation Authority royalties from the revenues generated from the sale of products (and related services) developed (in whole or in part) using the Innovation Authority funds, in an amount that is up to 100% to 150% of the aggregate amount of the total grants that it received from the Innovation Authority, plus annual interest for grants received after January 1, 1999. The subsidiary must fully and originally own any intellectual property developed using the Innovation Authority grants and any right derived therefrom unless transfer thereof is approved in accordance with the provisions of the Israeli Encouragement of Research, Development and Technological Innovation Law, 5744-1984, or the Innovation Law (formerly known as the Encouragement of Industrial Research and Development Law, 5744-1984, or the Research Law), and related regulations.

When a company develops know-how, technology or products using grants provided by the Innovation Authority, the terms of these grants and the Innovation Law restrict the transfer of such know-how, and the transfer of manufacturing or manufacturing rights of such products, technologies or know-how outside of Israel. Even after the repayment of such grants in full, our subsidiary will remain subject to the restrictions set forth under the Innovation Law, including:

- *Transfer of know-how outside of Israel*. Any transfer of the know-how that was developed with the funding of the Innovation Authority, outside of Israel, requires prior approval of the Innovation Authority, and the payment of a redemption fee.

- *Local manufacturing obligation*. The terms of the grants under the Innovation Law require that the manufacturing of products resulting from Innovation Authority-funded programs be carried out in Israel, unless a prior written approval of the Innovation Authority is obtained (except for a transfer of up to 10% of the production rights, for which a notification to the Innovation Authority is sufficient).

- *Certain reporting obligations*. Sapiens, as any recipient of a grant or a benefit under the Innovation Law, is required to file reports on the progress of activities for which the grant was provided as well as on its revenues from know-how and products funded by the Innovation Authority. In addition, our subsidiary is required to notify the Innovation Authority of certain events detailed in the Innovation Law.

Therefore, if aspects of our subsidiary’s technologies are deemed to have been developed with Innovation Authority funding, the discretionary approval of an Innovation Authority committee would be required for any transfer to third parties outside of Israel of know-how or manufacturing or manufacturing rights related to those aspects of such technologies. Our subsidiary may not receive those approvals. Furthermore, the Innovation Authority may impose certain conditions on any arrangement under which it permits our subsidiary to transfer technology or development out of Israel.

The transfer of Innovation Authority-supported technology or know-how outside of Israel may involve the payment of significant amounts, depending upon the value of the transferred technology or know-how, the amount of Innovation Authority support, the time of completion of the Innovation Authority-supported research project and other factors. Furthermore, the consideration available to shareholders in a transaction involving the transfer outside of Israel of technology or know-how developed with the Innovation Authority’s funding (such as a merger or similar transaction) may be reduced by any amounts that are required to be paid to the Innovation Authority.

Our Israeli subsidiary received grants from the Innovation Authority prior to an extensive amendment to the Research Law that came into effect as of January 1, 2016, or the Amendment, which may also affect the terms of existing grants. The Amendment provides for an interim transition period (which has not yet expired), after which time our subsidiary’s grants will be subject to terms of the Amendment. Under the Research Law, as amended by the Amendment, the Innovation Authority is provided with a power to modify the terms of existing grants. Such changes, if introduced by the Innovation Authority in the future, may impact the terms governing our subsidiary’s grants.

As we continue to expand our business in emerging markets, such as India, we face increasing challenges that could adversely impact our results of operations, reputation and business.

Approximately forty-six percent (46%) of Sapiens’ employees and approximately 4% of Magic Software employees are currently located in India. Our significant presence in India, in particular Sapiens’ Research & Development personnel and its personnel for the delivery of its professional services, poses a number of challenges. Those challenges are related to more volatile economic conditions, poor protection of intellectual property, inadequate protection against crime (including counterfeiting, corruption and fraud), lack of due process, and inadvertent breaches of local laws or regulations. In addition, local business practices may be inconsistent with international regulatory requirements, such as anti-corruption and anti-bribery laws and regulations (including the U.S. Foreign Corrupt Practices Act and the U.K. Bribery Act) to which we are subject. It is possible that some of Sapiens’ employees, subcontractors, agents or partners may violate such legal and regulatory requirements, which may expose it to criminal or civil enforcement actions, including penalties and suspension or disqualification from U.S. federal procurement contracting. If Sapiens fails to comply with such legal and regulatory requirements, our business and reputation may be harmed.

Conducting business in India involves unique challenges, including potential political instability; threats of terrorism; the transparency, consistency and effectiveness of business regulation; corruption; the protection of intellectual property; and the availability of sufficient qualified local personnel. Any of these or other challenges associated with operating in India may adversely affect our business or operations. Terrorist activity in India and Pakistan has contributed to tensions between those countries and our operations in India may be adversely affected by future political and other events in the region.

It may be difficult to serve process and enforce judgments against our directors and officers in the United States or in Israel.

We are organized under the laws of the State of Israel. All of our executive officers and directors are nonresidents of the United States, and a substantial portion of our assets and the assets of these persons are located outside of the United States. Therefore, it may be difficult to:

- effect service of process within the United States on us or any of our executive officers or directors;
- enforce court judgments obtained in the United States including those predicated upon the civil liability provisions of the United States federal securities laws, against us or against any of our executive officers or directors, in the United States or Israel; and
- bring an original action in an Israeli court against us or against any of our executive officers or directors to enforce liabilities based upon the United States federal securities laws.

Israeli courts may refuse to hear a claim based on an alleged violation of U.S. securities laws reasoning that Israel is not the most appropriate forum in which to bring such a claim. In addition, even if an Israeli court agrees to hear a claim, it may determine that Israeli law and not U.S. law is applicable to the claim. If U.S. law is found to be applicable, the content of applicable U.S. law must be proven as a fact by expert witnesses, which can be a time consuming and costly process. Certain matters of procedure will also be governed by Israeli law. There is little binding case law in Israel that addresses the matters described above. As a result of the difficulty associated with enforcing a judgment against us in Israel, an investor may not be able to collect any damages awarded by either a U.S. or foreign court.

Provisions of Israeli law may delay, prevent or make difficult an acquisition of us, which could prevent a change of control and therefore depress the price of our shares.

The Companies Law regulates mergers and requires that tender offers for acquisitions of shares above specified thresholds be approved via special shareholder approvals. The Companies Law furthermore requires shareholder approvals for transactions involving directors, officers or significant shareholders and regulates other matters that may be relevant to these types of transactions. Furthermore, Israeli tax considerations may make potential transactions unappealing to us or to some of our shareholders. These provisions of Israeli corporate and tax law may have the effect of delaying, preventing or complicating a merger with, or other acquisition of, us. This could cause our ordinary shares to trade at prices below the price for which third parties might be willing to pay to gain control of us. Third parties who are otherwise willing to pay a premium over prevailing market prices to gain control of us may be unable or unwilling to do so because of these provisions of Israeli law. Asseco’s control of a significant percentage of our outstanding ordinary shares may also discourage potential acquirers from paying a premium to our shareholders pursuant to a change of control transaction. Please see the risk factor above titled “Our largest shareholder, Asseco Poland S.A., can significantly influence the outcome of matters that require shareholder approval.”

Your rights and responsibilities as a shareholder are governed by Israeli law and differ in some respects from the rights and responsibilities of shareholders under U.S. law.

We are incorporated under Israeli law. The rights and responsibilities of holders of our ordinary shares are governed by our memorandum of association, amended and restated articles of association, which we sometimes refer to as our articles, and Israeli law. These rights and responsibilities differ in some respects from the rights and responsibilities of shareholders in typical U.S. corporations. In particular, a shareholder of an Israeli company has a duty to act in good faith in exercising the rights thereof and fulfilling the obligations thereof toward the company and other shareholders and to refrain from abusing the power thereof in the company, including, among other things, in voting at the general meeting of shareholders on certain matters. Israeli law provides that these duties are applicable in shareholder votes at the general meeting with respect to, among other things, amendments to a company’s articles of association, increases in a company’s authorized share capital, mergers and acquisitions and transactions involving interests of officers, directors or other interested parties which require the shareholders’ approval. In addition, a controlling shareholder of an Israeli company or a shareholder who knows that he or she possesses the power to determine the outcome of a vote at a meeting of our shareholders, or who has, by virtue of the company’s articles of association, the power to appoint or prevent the appointment of an office holder in the company, or any other power with respect to the company, has a duty of fairness toward the company. The Companies Law does not establish criteria for determining whether or not a shareholder has acted in good faith.

As a foreign private issuer whose ADSs are listed on the Nasdaq Global Select Market, we may follow certain home country corporate governance practices instead of certain Nasdaq requirements.

As a foreign private issuer whose ADSs are listed on the Nasdaq Global Select Market, we are permitted to follow certain home country corporate governance practices instead of certain requirements of the Listing Rules of the Nasdaq Stock Market. A foreign private issuer that elects to follow a home country practice instead of such requirements must submit to Nasdaq in advance a written statement from independent counsel in such issuer’s home country certifying that the issuer’s practices are not prohibited by the home country’s laws. In addition, a foreign private issuer must disclose in its annual reports filed with the SEC or on its website, each such requirement that it does not follow and describe the home country practice followed by the issuer in lieu of any such requirement. In keeping with these leniencies, we have elected to follow home country practice with regard to, among other things, composition of our board of directors, director nomination procedure, compensation of officers, quorum at shareholders’ meetings and timing of our annual shareholders’ meetings. We have furthermore elected to follow our home country law, in lieu of those rules of the Nasdaq Stock Market that require that we obtain shareholder approval for certain dilutive events, such as for the establishment or amendment of certain equity based compensation plans, an issuance that will result in a change of control of the company, certain transactions other than a public offering involving issuances of a 20% or more interest in the company and certain acquisitions of the stock or assets of another company. Accordingly, our shareholders and ADS holders may not be afforded the same protection as provided under Nasdaq’s corporate governance rules.

Our U.S. shareholders may suffer adverse tax consequences if we are classified as a passive foreign investment company or as a "controlled foreign corporation".

Generally, if for any taxable year 75% or more of our gross income is passive income, or at least 50% of the average quarterly value of our assets (which may be measured in part by the market value of our ordinary shares, which is subject to change) are held for the production of, or produce, passive income, we would be characterized as a passive foreign investment company, or PFIC, for U.S. federal income tax purposes under the Code. Based on our gross income and gross assets, and the nature of our business, we believe that we were not classified as a PFIC for the taxable year ended December 31, 2022. Because PFIC status is determined annually based on our income, assets and activities for the entire taxable year, it is not possible to determine whether we will be characterized as a PFIC for the taxable year ending December 31, 2023, or for any subsequent year, until we finalize our financial statements for that year. Furthermore, because the value of our gross assets is likely to be determined in large part by reference to our market capitalization, a decline in the value of our ordinary shares may result in our becoming a PFIC. Accordingly, there can be no assurance that we will not be considered a PFIC for any taxable year. Our characterization as a PFIC could result in material adverse tax consequences for you if you are a U.S. investor, including having gains realized on the sale of our ordinary shares treated as ordinary income, rather than a capital gain, the loss of the preferential rate applicable to dividends received on our ordinary shares by individuals who are U.S. holders, and having interest charges apply to distributions by us and the proceeds of share sales. Certain elections exist that may alleviate some of the adverse consequences of PFIC status and would result in an alternative treatment (such as mark-to-market treatment) of our ordinary shares. Prospective U.S. investors should consult their own tax advisers regarding the potential application of the PFIC rules to them. Prospective U.S. investors should refer to "Item 10.E. Taxation—U.S. Federal Income Tax Considerations" for discussion of additional U.S. income tax considerations applicable to them based on our treatment as a PFIC.

Certain U.S. holders of our ordinary shares may suffer adverse tax consequences if we or any of our non-U.S. subsidiaries are characterized as a "controlled foreign corporation", or a CFC, under Section 957(a) of the Code. A non-U.S. corporation is considered a CFC if more than fifty percent of the voting power or the total value of the shares is owned, or is considered to be owned, by U.S. shareholders who each own shares representing ten percent or more of the voting or total value of the shares of such non-U.S. corporation, who refer to as 10% U.S. Shareholders. Generally, 10% U.S. Shareholders of a CFC are currently required to include in their gross income their pro-rata share of the CFC's "Subpart F income", a portion of the CFC's earnings, to the extent the CFC holds certain U.S. property, and certain other new items under H.R. 1, originally known as the 2017 Tax Cuts and Jobs Act, or the TCJA. Such 10% U.S. Shareholders are subject to current U.S. federal income tax with respect to such items, even if the CFC has not made an actual distribution to such shareholders. "Subpart F income" includes, among other things, certain passive income (such as income from dividends, interests, royalties, rents and annuities or gain from the sale of property that produces such types of income) and certain sales and services income arising in connection with transactions between the CFC and a person related to the CFC. Certain changes to the CFC constructive ownership rules introduced by the TCJA may cause one or more of our non-U.S. subsidiaries to be treated as CFCs and may also impact our CFC status. This may result in negative U.S. federal income tax consequences for 10% U.S. Shareholders of our ordinary shares. The CFC rules are complex and therefore no assurances can be given that we are not or will not become a CFC. Certain changes to the CFC constructive ownership rules introduced by recent U.S. tax legislation could, under certain circumstances, cause us to be classified as a CFC. Current or prospective 10% U.S. Shareholders should consult their tax advisors regarding the U.S. tax consequences of acquiring, owning, or disposing our ordinary shares and the impact of the TCJA, especially the changes to the rules relating to CFCs.

We may have difficulty protecting our interests as a shareholder of Sapiens, which is a Cayman Islands company.

Following the completion of the migration of its legal jurisdiction to the Cayman Islands in August 2018, Sapiens' corporate affairs are governed by its memorandum of association, or the Memorandum, its articles of association, or the Articles, the Companies Act (as revised) of the Cayman Islands, or the Companies Act and the common law of the Cayman Islands. The rights of Sapiens' shareholders— such as Formula— and the fiduciary responsibilities of Sapiens' directors under the laws of the Cayman Islands are, in some respects, not as clearly established under statutes or judicial precedent in the Cayman Islands as in jurisdictions in the United States. Therefore, we may have more difficulty in protecting our interests than would shareholders of a corporation incorporated in a jurisdiction in the United States, due to the comparatively less developed nature of Cayman Islands law in this area.

The Companies Act permits mergers and consolidations between Cayman Islands companies and between Cayman Islands companies and non-Cayman Islands companies. Dissenting shareholders have the right to be paid the fair value of their shares (which, if not agreed between the parties, will be determined by the Cayman Islands court) if they follow the required procedures, subject to certain exceptions. Court approval is not required for a merger or consolidation which is effected in compliance with these statutory procedures.

In addition, there are statutory provisions that facilitate the reconstruction and amalgamation of companies, provided that the arrangement is approved by a majority in number of each class of shareholders and creditors with whom the arrangement is to be made, and who must in addition represent three-fourths in value of each such class of shareholders or creditors, as the case may be, that are present and voting either in person or by proxy at a meeting convened for that purpose. The convening of the meeting and subsequently the arrangement must be sanctioned by the Grand Court of the Cayman Islands. A dissenting shareholder has the right to express to the court the view that the transaction ought not to be approved.

When a takeover offer is made and accepted by holders of 90.0% of the affected shares within four months, the offeror may, within a two-month period, notify the holders of the remaining shares that it requires them to transfer such shares on the terms of the offer. An objection can be made to the Grand Court of the Cayman Islands within one month of the notice, but this is unlikely to succeed unless there is evidence of fraud, bad faith or collusion.

If the arrangement and reconstruction is thus approved, the dissenting shareholder would have no rights comparable to appraisal rights, which would otherwise ordinarily be available to dissenting shareholders of a corporation incorporated in a jurisdiction in the United States, providing rights to receive payment in cash for the judicially determined value of the shares. This may make it more difficult for you to assess the value of any consideration you may receive in a merger or consolidation or to require that the offeror give you additional consideration if you believe the consideration offered is insufficient.

Shareholders of Cayman Islands exempted companies have no general rights under Cayman Islands law to inspect corporate records and accounts or to obtain copies of lists of shareholders. Sapiens' directors have discretion under the Company's Memorandum and Articles to determine whether or not, and under what conditions, its corporate records may be inspected by its shareholders, but are not obliged to make them available to its shareholders (other than annual accounts, which are available for inspection prior to annual general meetings, and each shareholder's right to view the share register in respect of shares registered in its name). This may make it more difficult for a shareholder to obtain the information needed to establish any facts necessary for a shareholder motion or to solicit proxies from other shareholders in connection with a proxy contest.

Subject to limited exceptions, under Cayman Islands law, a minority shareholder may not bring a derivative action against the board of directors.

Copies of Sapiens' Memorandum and Articles, which serve as exhibits to its 2021 annual report, were annexed as Appendix A to the proxy statement for Sapiens' 2017 annual general meeting of shareholders, which was appended as Exhibit 99.1 to Sapiens' Report of Foreign Private Issuer on Form 6-K furnished to the SEC on October 26, 2017. A table comparing certain Curacao law provisions to Cayman Islands law provisions was annexed as Appendix B to that same proxy statement.

ITEM 4. INFORMATION ON THE COMPANY

A. History and Development of the Company

Both our legal name and our commercial name are Formula Systems (1985) Ltd. We were incorporated under the laws of the State of Israel on April 2, 1985 and are subject to the Israeli Companies Law, 5759-1999. We maintain our principal executive offices at 1 Yahadut Canada Street, Or Yehuda 6037501, Israel and our telephone number is +972-3-5389389. Our agent in the United States is Corporation Service Company and its address is 2711 Centerville Road, Suite 400, Wilmington, DE 19808. Our Internet address is www.formulasystems.com. The information contained on that site is not a part of this annual report and is not incorporated by reference herein. The SEC maintains an Internet site, http://www.sec.gov, which contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC. The information on that website is not part of this annual report and is not incorporated by reference herein. Except as described elsewhere in this annual report, we have not had any important events in the development of our business since January 1, 2022.

Capital Expenditures and Divestitures

Since our inception, we have acquired effective controlling interests, and have invested, in companies that are engaged in the IT solutions and services business. We, together with our investees, are known as the Formula Systems Group.

We have adopted a strategy of seeking to create positive economic impact and long-term value for our shareholders and the companies we invest in. We believe that this strategy provides us with capital to support the growth of our interest in our remaining subsidiaries, as well as provide us the opportunity to pursue new acquisitions of, and investments in, other businesses, particularly businesses offering products, technologies and services that are complementary to ours and are suitable for integration into our business, thereby increasing value for our shareholders (and ADS holders). We expect to continue to develop and enhance the products, services and solutions of our investees, and to continue to pursue additional acquisitions of, or investments in, companies that provide IT services and proprietary software solutions.

Our principal investment and divestiture activities since the start of our 2020 fiscal year are described below. For additional information concerning our related financing activities since the start of our 2020 fiscal year, see "Item 5. Operating and Financial Review and Prospects— B. Liquidity and Capital Resources— Sources of Financing."

Investments by Formula in Existing Subsidiaries:

Changes in our percentage ownership of Sapiens. As of January 1, 2020, our percentage interest in Sapiens was approximately 47.8%. During the last three years, mainly due to exercises of options by employees of Sapiens, but also due to Sapiens' follow-on public offering completed in October 2020, our direct interest in Sapiens' outstanding common shares was diluted to 44.0% and 43.64%, as of December 31, 2020 and 2021, respectively. As a result of our acquisition of 285,672 of Sapiens common shares on February 2022, March 2022 and August 2022 for a total consideration of $7.0 million (there were no such purchases in 2020 or 2021) our percentage ownership of Sapiens rose to 44.1% as of December 31, 2022. The source of funds for our purchase of Sapiens common shares in 2022 was our working capital. Our interest in Sapiens' common shares as of March 31, 2023, stands at 44.1%.

Changes in our percentage ownership of Magic Software. As of January 1, 2020, our percentage interest in Magic Software was 45.3%. Pursuant to our acquisition of Magic Software ordinary shares, we invested an aggregate of $1.2 million in 2020, $1.1 million in 2021, and $5.8 million in 2022. Our interest in Magic Software's ordinary shares as of December 31, 2022, stands at 46.3%. The source of funds for those acquisitions has been our working capital. Our interest in Magic Software's ordinary shares as of March 31, 2023 remains at 46.3%.