

FORMULA SYSTEMS (1985) LTD  
Form 20-F  
May 15, 2018

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**

**WASHINGTON, D.C. 20549**

**FORM 20-F**

**REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR 12(g) OF THE SECURITIES  
EXCHANGE ACT OF 1934**

**OR**

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

**For the fiscal year ended December 31, 2017**

**OR**

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

**For the transition period from \_\_\_\_\_ to \_\_\_\_\_**

**OR**

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

Date of event requiring this shell company report \_\_\_\_\_

Commission File Number: 000-29442

**FORMULA SYSTEMS (1985) LTD.**

(Exact Name of Registrant as Specified in Its Charter and translation of Registrant's name into English)

**Israel**

(Jurisdiction of Incorporation or Organization)

**5 Haplada Street, Or Yehuda 60218, Israel**

(Address of Principal Executive Offices)

**Asaf Berenstin; 5 Haplada Street, Or Yehuda 60218, Israel**

Tel: 972 3 5389487, Fax: 972 3 5389645

(Name, Telephone, E-mail and/or Facsimile Number and Address of Company Contact Person)

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

Title of Each Class

Name of Each Exchange On Which Registered

**American Depositary Shares, each** **NASDAQ Global Select Market**  
**representing one Ordinary Share, NIS 1 par value**

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

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act: **None**

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report:

**As of December 31, 2017, the registrant had 14,738,782 outstanding ordinary shares, NIS 1 par value, of which 174,724 were represented by American Depositary Shares.**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes No

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.

Yes No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

Yes No

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

Large accelerated filer Accelerated filer

Non-accelerated filer    Emerging Growth Company

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards† provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP    International Financial Reporting Standards as issued by the International Accounting Standards Board    Other

If “Other” has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow.

Item 17    Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes    No

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**INTRODUCTION**

*This annual report on Form 20-F contains various “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, and the Private Securities Litigation Reform Act of 1995, as amended, with respect to our business, financial condition and results of operations. Such forward-looking statements reflect our current view with respect to future events and financial results. Statements which use the terms “anticipate,” “believe,” “expect,” “plan,” “intend,” “estimate” and similar expressions are intended to identify forward looking statements. We remind readers that forward-looking statements are merely predictions and therefore inherently subject to uncertainties and other factors and involve known and unknown risks that could cause the actual results, performance, levels of activity, or our achievements, or industry results, to be materially different from any future results, performance, levels of activity, or our achievements expressed or implied by such forward-looking statements. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof. Except as required by applicable law, including the securities laws of the United States, we undertake no obligation to publicly release any update or revision to any forward looking statements to reflect new information, future events or circumstances, or otherwise after the date hereof. We have attempted to identify significant uncertainties and other factors affecting forward-looking statements in the Risk Factors section that appears in Item 3D. “Key Information—Risk Factors.”*

*Our consolidated financial statements appearing in this annual report are prepared in U.S. dollars and in accordance with International Financial Reporting Standards, or IFRS, as issued by the International Accounting Standards Board, or IASB. All references in this annual report to “dollars” or “\$” are to U.S. dollars and all references in this annual report to “NIS” are to New Israeli Shekels. References to the Israeli CPI refer to the Israeli consumer price index.*

*Statements made in this annual report concerning the contents of any contract, agreement or other document are summaries of such contracts, agreements or documents and are not complete descriptions of all of their terms. If we filed any of these documents as an exhibit to this annual report or to any previous filing with the Securities and Exchange Commission, or the SEC, you may read the document itself for a complete recitation of its terms.*

*As used in this annual report, references to “we,” “our,” “ours,” “our company” and “us” refer to Formula Systems (1985) Ltd. and its subsidiaries and affiliate company, unless otherwise indicated. References to “Formula” refer to Formula Systems (1985) Ltd. alone. Our operations are currently conducted through our subsidiaries – Matrix IT Ltd., or Matrix, Sapiens International Corporation N.V., or Sapiens, Magic Software Enterprises Ltd., or Magic Software, Michpal Micro Computers (1983) Ltd., or Michpal, following our acquisition of Michpal on January 3, 2017 and InSync Staffing Solutions, Inc., or InSync and our affiliated company TSG Advanced IT Systems, Ltd., or TSG, following our acquisition of a 50% share interest in TSG on May 9, 2016.*

*All trademarks appearing in this annual report are the property of their respective holders.*



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**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. Selected Financial Data**

The following tables present selected consolidated financial data as of the dates and for each of the periods indicated. Except where we have indicated otherwise, we have presented all of the consolidated financial information in this document in accordance with IFRS as issued by the IASB. Historically, we had prepared our consolidated financial statements in accordance with United States generally accepted accounting principles, or U.S. GAAP, for all periods up to and including the year ended December 31, 2015. For the year ended December 31, 2016, we transitioned our reporting to IFRS. In order to comply with requirements of the SEC related to our transition to IFRS, we set the date of transition as January 1, 2015 and retrospectively applied IFRS as of that date and for the year ended December 31, 2015. Accordingly, we have presented herein consolidated statements of financial position that comply with IFRS applicable as of January 1, 2015, in addition to as of December 31, 2015, 2016 and 2017. Our consolidated statements of profit or loss presented herein in IFRS cover the years ended December 31, 2016 and 2017, as well as the year ended December 31, 2015 (as adjusted from its prior preparation in accordance with U.S. GAAP).

Pursuant to the transitional relief granted by the SEC in respect of the first-time adoption of IFRS, we have only provided financial information for the three fiscal years ended December 31, 2017 in this annual report as presented under IFRS. The selected financial information as of January 1, 2015 and as of and for the years ended December 31, 2015, 2016 and 2017 set forth below should be read in conjunction with, and is qualified in its entirety by reference to “Item 5. Operating and Financial Review and Prospects” and our audited consolidated financial statements and the notes thereto included in this annual report.

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	Year ended December 31,		
	2015	2016	2017
	U.S. dollars in thousands (except per share data)		
Revenues	973,194	1,108,621	1,355,139
Cost of revenues	741,270	849,840	1,058,316
Gross profit	231,924	258,781	296,823
Research and development costs, net	15,123	22,328	39,853
Selling, marketing, general and administrative expenses	140,935	147,953	184,116
Operating income	75,866	88,500	73,854
Financial expenses	(14,955 )	(17,594 )	(29,916 )
Financial income	5,422	6,008	8,749
Group's share of earnings of companies accounted for at equity, net	5	349	1,124
Income before taxes on income	66,338	77,263	52,811
Taxes on income	15,984	21,163	13,371
Net income	50,354	56,100	39,440
Redeemable non-controlling interests	864	2,125	3,671
Net income attributable to non-controlling interests	29,661	31,530	25,417
Net income attributable to equity holders of the Company	19,829	22,445	10,352
Earnings per share (basic)	1.41	1.58	0.72
Earnings per share (diluted)	1.35	1.49	0.68
Number of shares used in computing earnings per share (basic)	14,071,210	14,213,719	14,436,763
Number of shares used in computing earnings per share (diluted)	14,665,365	15,525,261	14,731,603

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	January 1 2015	December 31, 2015	2016	2017
	(U.S. Dollars in thousands)			
Total current assets	\$486,643	588,984	633,659	694,801
Total long-term investments	62,922	58,728	70,925	57,774
PROPERTY, PLANTS AND EQUIPMENT, NET	22,111	22,003	26,130	29,807
NET INTANGIBLE ASSETS AND GOODWILL	534,219	545,677	623,808	781,255
<b>TOTAL ASSETS</b>	<b>1,105,895</b>	<b>1,215,392</b>	<b>1,354,522</b>	<b>1,563,637</b>
Total current liabilities	256,340	290,793	359,038	432,947
Total long-term liabilities	157,255	219,320	271,642	357,768
Total equity	692,300	705,279	723,842	772,922
<b>TOTAL LIABILITIES AND EQUITY</b>	<b>1,105,895</b>	<b>1,215,392</b>	<b>1,354,522</b>	<b>1,563,637</b>

**Dividends**

In September 2017, Formula declared a cash dividend to its shareholders, which was paid in November 2017, of \$0.34 per share. The aggregate amount distributed by Formula was approximately \$5.0 million.

In December 2016, Formula declared a cash dividend to its shareholders, which was paid in January 2017, of \$0.48 per share. The aggregate amount distributed by Formula was approximately \$7.1 million.

In June 2016, Formula declared a cash dividend to its shareholders, which was paid in July 2016, of \$0.34 per share. The aggregate amount distributed by Formula was approximately \$5.0 million.

In January 2016, Formula declared a cash dividend to its shareholders, which was paid in February 2016, of \$0.34 per share. The aggregate amount distributed by Formula was approximately \$5.0 million.

In June 2015, Formula declared a cash dividend to its shareholders, which was paid in August 2015, of \$0.34 per share. The aggregate amount distributed by Formula was approximately \$5.0 million.

Cash dividends may be declared and paid in NIS or dollars. Dividends to the holders of Formula's American Depositary Shares, or ADSs, are paid by the depositary of the ADSs, for the benefit of owners of ADSs. If a dividend is declared and paid in NIS in Israel, the NIS amount is converted into, and paid out in, dollars by the depositary of the ADSs.

**B. Capitalization and Indebtedness**

Not applicable.

**C. Reasons for the Offer and Use of Proceeds**

Not applicable.

**D. Risk Factors**

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 due to any of these risks, and you may lose all or part of your investment.

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**Risks Related to Our Business and Our Industry**

**Rapid technological changes may adversely affect the market acceptance of our products and services, and our business, results of operations and financial condition could be adversely affected.**

We compete in markets that are characterized by rapid technological changes. Other companies are also seeking to offer software solutions and other products and services in our markets, including enterprise mobility solutions, digital transformation solutions, big data and data analytics solutions, Internet of Things (IOT) solutions, cyber solutions, business intelligence (BI) solutions, AI and machine learning solutions, internet-related solutions, such as cloud computing and complementary services and business solutions for the insurance and financial services industry. These companies may develop technological or business model innovations or offer services in the markets that we seek to address that are, or are perceived to be, equivalent or superior to our products and services. Furthermore, many of our smaller competitors have been acquired and may be acquired in the future by larger competitors, which provides such 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 addition, our customers' business models may change in ways that we do not anticipate and these changes could reduce or eliminate our customers' needs for our products and services. Our operating results depend on our ability to adapt to market changes and develop and introduce new products and services into existing and emerging markets.

The introduction of new technologies, devices and business models could render existing products and services obsolete and unmarketable and could exert price pressures on our products and services. Our future success will depend upon our ability to address the increasingly sophisticated needs of our customers by:

Supporting existing and emerging hardware, software, databases and networking platforms; and  
Developing and introducing new and enhanced software development technology and applications that keep pace with such technological developments, emerging new product markets and changing customer requirements.

The market for software solutions and related services and for business solutions is highly competitive. Many of our smaller competitors have been acquired by larger competitors, which provides such 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 addition, we and some of our competitors have developed business models 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.

**Adapting to evolving technologies can require substantial financial investments, distract management and adversely affect the demand for our existing products and services.**

Adapting to evolving technologies may require us to invest a significant amount of resources, time and attention into the development, integration, support and marketing of products and services that work with or utilize those technologies. For example, the acceptance and growth of cloud computing, enterprise mobility, security and cyber and digital are examples of rapid technological changes which we have adapted into our products, packaged software solution and software services offerings. Developing and implementing cloud computing, enterprise mobility, security and cyber and digital into certain of our software solution models and software services offerings required us to make substantial investments and required significant attention from our management to refine our business strategies to include the delivery of these solutions. As the market continues to adopt new technologies, we expect to continue to make substantial investments in our software solutions, system integrations and professional services related to these changing technologies. Even if we succeed in adapting to a new technology by developing attractive products and services and successfully bringing them to market, there is no assurance that the new product or service will have a positive impact on our financial performance and could even result in lower revenue, lower margins and higher costs and therefore could negatively impact our financial performance.

**Unfavorable national and global economic conditions could adversely affect our business, operating results and financial condition.**

During periods of slowing economic activity our customers may reduce their demand for our products, technology and software services, which would reduce our sales, and our business, operating results and financial condition may be adversely affected. Economies throughout the world currently face a number of challenges, including threatened sovereign defaults, credit downgrades, restricted credit for businesses and consumers and potentially falling demand for a variety of products and services. Notwithstanding the improving economic conditions in some of our markets, many companies are still cutting back expenditures or delaying plans to add additional personnel or systems. Any further worsening of global economic conditions could result in longer sales cycles, slower adoption of new technologies and increased price competition for our products and services. We could also be exposed to credit risk and payment delinquencies on our accounts receivable, which are not covered by collateral. Any of these events would likely harm our business, operating results and financial condition.

These developments, or the perception that any of them could occur, could have a material adverse effect on global economic conditions and the stability of global financial markets, and could significantly reduce global market liquidity and restrict the ability of key market participants to operate in certain financial markets. Asset valuations, currency exchange rates and credit ratings may be especially subject to increased market volatility.



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In the United States, the Trump Administration has called for substantial change to fiscal, tax and trade policies that may adversely affect our business. We cannot predict the impact, if any, of these changes to our business. However, it is possible that these changes could adversely affect our business.

If global economic and market conditions, or economic conditions in the United States, Europe or Asia or other key markets, remain uncertain or weaken further, our business, operating results and financial condition may be adversely affected.

**Our development cycles are lengthy, we may not have the resources available to complete development of new, enhanced or modified, solutions and 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. Furthermore, we may invest substantial resources in the development of solutions that do not achieve market acceptance or commercial success. We may also not have sufficient funds or other resources to make the required investments in product development. Even where we succeed in our sales efforts and obtain new orders from customers, the complexity involved in delivering certain of 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 reputation 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, depends upon many factors outside our control, and could cause us to expend significant time and resources prior to earning 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 involve educating our customers and industry analysts about the use and benefits of our products and services, including the technical capabilities of our products and the potential cost savings achievable by organizations deploying our solutions or utilize our services. Customers typically undertake a significant evaluation process, which frequently involves not only our products, but also those of our competitors and can result in a lengthy sales cycle with little or no control over any delays encountered by us. We spend substantial time, effort and money in our sales efforts without any assurance that such efforts will produce any sales.



**Investment in highly skilled research and development, customer support and IT professional personnel is critical to our ability to develop and enhance our software solutions, support our customers and execute challenging design, implementation, and deployment projects, but an increase in such investment may reduce our profitability.**

As providers of software solutions that rely upon technological advancements, we rely heavily on our research and development activities to remain competitive. We consequently highly depend on the ability to attract, train, motivate and retain highly skilled information technology professionals for our research and development team, particularly individuals with knowledge and experience in the insurance, healthcare and defense industries. 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. If we are unable to hire or retain qualified research and development personnel and other technology professionals to develop, implement and modify our software solutions, we may be unable to meet the needs of our customers. Even if we succeed in retaining the necessary skilled personnel in our research and development and customer support efforts, our investment in our personnel and product development might increase our costs of operations and thereby reduce our profitability, unless compensated through increased revenues. 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, if we seek to expand the marketing and offering of our products and services into new territories, it would require the retention of new, additional highly 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.

**If our products and services fail to compete successfully with those of our competitors, we may have to reduce the prices of our products and services, which, in turn, may adversely affect our business.**

We face competition, both in Israel and internationally, from a variety of companies, including companies with significantly greater resources than ours who are likely to enjoy substantial competitive advantages, including:

- longer operating histories;
- closer proximity to future markets;
- greater financial, technical, marketing and other resources;
- cheaper costs, including labor cost;
- political leverage;

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greater name recognition;  
well-established relationships with our current and potential clients; and  
a broader range of products and services.

Both Matrix's and Magic Software's principal domestic competitors in the Israeli market are Israeli IT services companies and systems integrators, the largest of which are IBM Israel, HP Israel, Hilan Ltd., Malam-Team, One-1, Taldor Computer Systems, Tefen, Aman, the Elad Group, Yael, SQLink, Emet, LogOn, HMS and OfficeSoft. Matrix's competitors in the United States market include many companies who provide similar services to those offered by Matrix, as well as providers of offshore services. In some cases, Matrix competes with IBM, Accenture and the Big-4 accounting firms. Matrix's international competitors in the Israeli market include Microsoft, IBM, HP, Oracle and CA. These international competitors often use local subcontractors to provide personnel for contracts performed in Israel. Most of these international entities are also business partners of Matrix. Competitors with respect to infrastructure solutions include HP, Lenovo and Dell. With respect to cloud services, competitors include All Cloud, DoIT, Google, Microsoft and Amazon Web Services. Matrix's competitors with respect to training are the training centers of the Technion, IITC, HackerU, Ness Technologies and Sela.

Furthermore, several software development centers in Israel and worldwide offer software development services at lower prices than we do. Due to the intense competition in the markets in which we operate, software products and services prices may fluctuate significantly. As a result, we may have to reduce the prices of our products, which in turn, may adversely affect our revenues and the gross margins for our products.

With respect to Magic Software's application development solutions, Magic Software competes in the application platform, SOA architecture and enterprise mobility markets. Among its current competitors are Kony, IBM, Microsoft, Adobe, Oracle, SAP Sybase, OutSystems and Pegasystems. With respect to Magic Software's integration solutions, Magic Software competes in the integration platform market. Among its current competitors are IBM, Informatica, TIBCO, MuleSoft, Jitterbit, Talend and Software AG.

There are several similar products in the market which utilize the model driven architecture, or MDA, approach utilized by Magic Software's application development solutions. The market for this type of platform is highly competitive. Companies such as CA and IBM have tools that compete directly with those of Magic Software. Furthermore, new development paradigms have become very popular in IT software development and developers today have many alternatives.

The telecom BSS domain in which Magic Software operates through its wholly owned FTS subsidiary is a highly competitive market in which FTS competes based on product quality, service quality, timeliness of delivery and pricing. Within the global billing, charging and policy control market, FTS principally competes against global IT providers and the in-house IT departments of telecommunications operators. Among the competitors focused on this market are Amdocs, Ericsson, Comverse, NetCracker Technology, CSG Systems, Redknee Solutions and Oracle

Communications.

There are also a number of smaller or regional telecom BSS competitors who compete on a regional or domestic market level. These tend to be smaller players, and may include companies such as Comarch, Mind CTI, Tecnotree, Cerillion, Openet and Elitcore, among others.

Sapiens' competitors in the insurance software solutions market differ based on the size, geography and lines of business in which it operates. Some of its competitors offer a full suite of services, while others only offer one module; some operate in specific (domestic) geographies, while others operate on a global basis. In addition, delivery models vary, with some competitors keeping delivery in-house, or using IT outsourcing (ITO) or business process outsourcing (BPO).

Examples of Sapiens' primary competitors are:

- 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 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 Sapiens' solutions for this purpose);
- Internal IT departments, who often prefer to develop solutions in-house; and
- New insurtech companies with niche solutions.

With respect to Sapiens DECISION, we believe that Sapiens is considered a pioneer in this disruptive market landscape. Since the introduction of Sapiens innovative approach to enterprise architecture to the market, Sapiens has identified only a small number of potential competitors.

These competitors may be able to respond more quickly to new or emerging technologies or changes in customer requirements. They may also benefit from greater purchasing economies, offer more aggressive product and service pricing or devote greater resources to the promotion of their products and services. Current and potential competitors have established or may establish cooperative relationships among themselves or with third parties to increase such competitors' ability to successfully market their tools and services. We also expect that competition will increase as a result of continued consolidation within the industry. Our further penetration of international markets may likewise cause us to face additional competition. As a result, we cannot assure you that the products and solutions that we offer will compete successfully with those of our competitors.

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We may be unable to differentiate our tools and services from those of our competitors or successfully develop and introduce new tools and services that are less costly than, or superior to, those of our competitors. This could have a material adverse effect on our ability to compete.

**As some of our revenues are derived from the Israeli government sector, including defense, healthcare, education and finance, 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.**

We perform work for a wide range of Israeli governmental agencies and related subcontractors. Any reduction in total Israeli government spending for political or economic reasons may reduce our revenues and profitability. In addition, the government of Israel has occasionally 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.

TSG, our jointly-controlled affiliate, together with Israel Aerospace Industries Ltd. or IAI, derives most of its revenues directly or indirectly from government agencies, mainly the Israeli Ministry of Defense (IMOD) and authorities of various countries, pursuant to contracts awarded to it under defense and homeland security-related programs. The funding of these programs could be reduced or eliminated due to numerous factors, including geo-political events and macro-economic conditions that are beyond our control. Reduction or elimination of government spending under those contracts would cause a negative effect on TSG's revenues, results of operations, cash flow and financial condition. Furthermore, the Israeli government may reduce its expenditures for defense items or change its defense priorities in the coming years. In addition, the Israeli defense budget may be adversely affected if there is a reduction in U.S. foreign military assistance.

**We recently began preparing our consolidated financial statements in accordance with IFRS as issued by the IASB and, as a result, some of our financial data are not easily comparable from period to period.**

On January 1, 2016, we began preparing our consolidated financial statements in accordance with IFRS as issued by the IASB. Prior to the year ended December 31, 2016, we prepared our consolidated financial statements only in accordance with U.S. GAAP. Therefore, our financial data as of and for the years ended December 31, 2013, 2014 and 2015, which was presented in prior year's annual report on Form 20-F, was derived from our annual audited consolidated financial statements which were prepared in accordance with U.S. GAAP. Because IFRS differs in certain significant respects from U.S. GAAP, in particular with respect to the results of our subsidiaries, all of which are consolidated with our results under IFRS, the U.S. GAAP financial information presented in prior years is not directly comparable to our IFRS financial information in this annual report. The lack of comparability of our financial data may make it difficult to gain a full and accurate understanding of our operations and financial condition in periods prior to 2015.

**Our clients' complex regulatory requirements may increase our costs, which could negatively impact our profits.**

Some of our clients, particularly those in the financial services, life sciences, healthcare and defense verticals, are subject to complex and constantly changing regulatory requirements. On occasion, these regulatory requirements change unpredictably. These regulations may increase our potential liabilities if our services are found to contribute to a failure by our clients to comply with the requirements applicable to them and may increase compliance costs as regulatory requirements increase or change. These increased costs could negatively impact our profits.

**With respect to certain of our defense sector command and control software solutions which are developed and offered by our jointly controlled investee, TSG, we depend on governmental approval of our exports.**

Our international sales, as well as our international procurement of skilled human resources, technology and components, related to our command and control, cyber and intelligence software solutions, depends largely on export license approvals from the governments of Israel, the U.S. and other countries. If we fail to obtain material approvals in the future, or if material approvals previously obtained are revoked or expire and are not renewed, our ability to sell our products and services to overseas customers and our ability to obtain goods and services essential to TSG's business could be interrupted, resulting in a material adverse effect on TSG's business, revenues, assets, liabilities and results of operations.

**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 our solutions and services, or if our relationships with our largest customers are impaired, our revenue could be negatively affected.**

Certain of our subsidiaries depend heavily on repeat product and service revenues from their base of existing customers. For example, five of Sapiens' customers accounted for, in the aggregate, 34% and 22% of its revenues in the years ended December 31, 2016 and 2017, respectively. Five of Magic's customers accounted for, in the aggregate, 18% and 27% of its revenues in the years ended December 31, 2016 and 2017, respectively. One of these five customers' accounted for 98% of the revenues of a subsidiary of Magic and another customer accounted for 84% of the revenues of another Magic subsidiary.

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 would have a material adverse effect on our business, results of operations and financial condition.



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**Our business involves long-term, large projects, some of which are fixed-price projects that involve uncertainties, such as estimated project costs and profit margins, and which can therefore adversely affect our results of operations.**

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

This is particularly the case on fixed-price contracts. Some of our solutions and services are sold as fixed-price projects with delivery requirements spanning more than one year. As certain of our projects can be highly complex, we may not be able to accurately estimate our actual costs of completing a fixed-price project. If our actual cost-to-completion of these projects exceeds significantly the estimated costs, we could experience a loss on the related contracts, which would have a material adverse effect on our results of operations, financial position and cash flow. In addition, we are often 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 such a project significantly exceeds the estimated costs, we could experience a loss on the related contract, which (when multiplied by multiple projects) could have a material adverse effect on our results of operations, financial position and cash flow.

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

**If our customers terminate contracted projects or choose not to retain us for additional projects, our revenues and profitability may be negatively affected.**

Our software services customers typically retain us on a non-exclusive basis. Many of our customer contracts, including those that are on a fixed price and timeframe basis, can be terminated by the customer with or without cause upon 90 days' notice or less, and generally without termination-related penalties. Additionally, our contracts with customers are typically limited to discrete projects without any commitment to a specific volume of business or future work and may involve multiple stages. In addition, the increased breadth of our service offerings may result in larger and more complex projects for our customers that require us to devote resources to more thoroughly understand their operations. Despite these efforts, our customers may choose not to retain us for additional stages or may cancel or delay planned or existing engagements due to any number of factors, including:

financial difficulties;  
a change in strategic priorities;  
demand for price reductions; and  
a decision to utilize in-house IT capacity or work with our competitors.

These potential terminations, cancellations or delays in planned or existing engagements could make it difficult for us to use our personnel efficiently and may negatively impact our revenues and profitability.

As an example, in 2017 Sapiens was involved in a dispute with a significant customer under a software development project agreement, which agreement provided for the customizing, enhancement and implementation of a new product. The customer alleged that Sapiens had materially breached its agreement with the customer. After carefully examining the customer's allegations, Sapiens informed the customer that it had not materially breached any of its obligations under the agreement and that the customer had itself materially breached the agreement. Work on the project was canceled due to the dispute. While Sapiens eventually entered into a settlement agreement with the customer which resulted in the termination of the software development project agreement, that caused a reduction in Sapiens' and our revenues and operating profit relative to their and our prior estimates for 2017. Similar such disputes with other significant customers in the future, whether due to failure on our part to meet upfront estimates or customer expectations, or even absent such failures on our part, 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.



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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 liabilities 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 will be subject to the new European Union General Data Protection Regulation, or GDPR, which will create 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 will become enforceable on May 25, 2018 and non-compliance may expose entities such as our company to significant fines or other regulatory claims. While we have invested in, and intend to continue to invest in, reasonably

necessary resources to comply with these new 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.

**If we fail to locate, successfully compete for and consummate suitable acquisitions and investments, we may be unable to grow or maintain our market share.**

We and our subsidiaries consider it a significant part of our business strategy to pursue acquisitions and other initiatives in order to expand our product or services offerings or otherwise enhance our market position and strategic strengths. Consequently, we intend to pursue 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. We cannot assure you that we will be able to locate suitable potential acquisition or investment opportunities in Israel or internationally, or if we do identify suitable candidates, that at the conclusion of related discussions and negotiations, we will be able to consummate the acquisitions or investments on terms which are favorable to us. If and when acquisition or investment opportunities arise, we expect to compete for these opportunities with other established and well-capitalized entities and we cannot guarantee that we will succeed in such competition on terms which remain favorable to us. If we fail to consummate further acquisitions or investments in the future, our ability to grow or to even maintain our market share may be harmed.

**Any future acquisitions of, or investments in, companies or technologies, especially those located outside of Israel, may distract our management, disrupt our business and may be difficult to finance on favorable terms.**

As described above, it is a significant part of our Group's strategy to pursue acquisitions of, and investments in, companies offering products, technologies and services in order to expand our product offerings or services or otherwise enhance our market position and strategic strengths. In the past three years we made a number of acquisitions, including each of the acquisitions described below in "Item 4.A. History and development of the company-- Capital Expenditures and Divestitures"

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Mergers and acquisitions of companies are inherently risky and subject to many factors outside of our control and no assurance can be given that our future acquisitions will be successful and will not adversely affect our business, operating results, or financial condition. In the future, we may seek to acquire or make strategic investments in complementary businesses, technologies, services or products, or enter into strategic partnerships or alliances with third parties in order to expand our business. Failure to manage and successfully integrate such acquisitions could materially harm our business and operating results. Prior acquisitions have resulted in a wide range of outcomes, from successful introduction of new products technologies and professional services to a failure to do so. Even when an acquired company has previously developed and marketed products, there can be no assurance that new product enhancements will be made in a timely manner or that pre-acquisition due diligence will have identified all possible issues that might arise with respect to such products. If we acquire other businesses, we may face difficulties, including:

- Difficulties in integrating the operations, systems, technologies, products, and personnel of the acquired businesses or enterprises;
- Diversion of management's attention from normal daily operations of the business and the challenges of managing larger and more widespread operations resulting from acquisitions;
- Potential difficulties in completing projects associated with in-process research and development;
- Difficulties in entering markets in which we have no or limited direct prior experience and where competitors in such markets have stronger market positions;
- Insufficient revenue to offset increased expenses associated with acquisitions; and
- The potential loss of key employees, customers, distributors, vendors and other business partners of the companies we acquire following and continuing after announcement of acquisition plans.

Furthermore, we may not be able to retain the key employees that may be necessary to operate the businesses we acquired and may acquire and we may not be able to timely attract new skilled employees and management to replace them. An acquisition may also involve accounting charges and/or amortization of significant amounts of intangible assets, which would adversely affect our ability to achieve and maintain profitability. These difficulties could disrupt our ongoing business, distract our management and employees, increase our expenses and adversely affect our results of operations.

Any acquisition or investment in a company located outside of Israel poses additional risks, including risks related to the monitoring of a management team from a great distance and the need to integrate a potentially different business culture. Our failure to successfully integrate such a newly acquired business or such an investment could harm our business.

We may furthermore need to raise capital in connection with any such acquisition or investment, which we would likely seek via public or private equity or debt offerings. For example, we issued \$58.3 million (net of issuance expenses) of secured debentures, or Series A Secured Debentures, and convertible debentures, or Series B Convertible Debentures as part of a public offering in Israel in September 2015, and an additional \$44.1 million of Series A Secured Debentures via a private placement in Israel in January 2018. In March 2014, Magic Software consummated

a public offering in which it received net proceeds of \$54.7 million. Furthermore, in September 2017, Sapiens issued NIS 280 million (approximately \$78.2 million, net of \$0.96 million of debt discount and issuance costs) principal amount of Series B unsecured, non-convertible debentures, in a public offering and private placement in Israel. Proceeds of such offering were utilized to repay the entire outstanding loan amount (including accrued interest) under a credit agreement that had been entered into in connection with Sapiens' acquisition of StoneRiver. The issuance of equity securities pursuant to any such financing could be dilutive to our existing shareholders. The issuance of equity securities by any of our investees pursuant to any such financing could be dilutive to our existing interest in these investees. If we raise funds through debt offerings, we may be pressured in serving such debt. If we use cash or debt financing, our financial liquidity will be reduced, the holders of our debt may have claims on our assets ahead of holders of our ordinary shares and our business operations may be restricted by the terms of any debt. Our ability to raise capital in this manner also depends upon market and other conditions, many of which are beyond our control. Due to unfavorable conditions, we could be required to seek alternative financing methods, such as bank financings, which involve borrowing money on terms that are not favorable to us. Difficulties in raising equity capital or obtaining debt financing on favorable terms, or the unavailability of financing, including bank borrowings, may hinder our ability to implement our strategy for selective acquisitions and investments.

**If we fail to manage our growth, our business could be disrupted and our profitability will likely decline.**

We have experienced rapid growth during the last five years, through acquisitions and organic growth. The number of our employees (including our affiliated company TSG) increased over the last five years from approximately 8,297 as of December 31, 2012 to approximately 14,477 as of December 31, 2017, and may increase further as we aim to enhance our businesses. This increase may significantly strain our management and other operational and financial resources. In particular, continued headcount growth increases the integration challenges involved in:

- recruiting, training and retaining skilled technical, marketing and management personnel;
- maintaining high quality standards;
- preserving our corporate culture, values and entrepreneurial environment;
- developing and improving our internal administrative infrastructure, particularly our financial, operational, communications and other internal controls; and
- maintaining high levels of client satisfaction.

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The rapid execution necessary to exploit the market for our business model requires an effective planning and management process. Our systems, procedures or controls may not be adequate to support the growth in our operations, and our management may not be able to achieve the rapid execution necessary to exploit the market for our business model. Our future operating results will also depend on our ability to expand our development, sales and marketing organizations. If we are unable to manage growth effectively, our profitability will likely decline.

**The increasing amount of intangible assets and goodwill recorded on our balance sheet may lead to significant impairment charges in the future.**

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. The amount of goodwill and identifiable intangible assets on our consolidated balance sheet was \$545.7 million, \$623.8 million and \$781.3 million as of December 31, 2015, 2016 and 2017, respectively, as a result of our acquisitions, and may increase further following future acquisitions. Impairment testing under IFRS may lead to further impairment charges in the future. Any significant impairment charges could have a material adverse effect on our results of operations.

During the years ended December 31, 2016 and 2017, no impairment was required for any of our cash generating units and no impairment losses were identified for these intangible assets and software products.

**Our and our investees' credit facility agreements with banks and other financial institutions, and our 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 B Convertible Debentures and Sapiens' non-convertible debentures, issued in a public offering and private placement in Israel in September 2017, we have undertaken to maintain a number of conditions and limitations on the manner in which we can operate our business, including 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, including 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 the risk that we may not be able to maintain in the future the rating level assigned to the Notes. 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 provide 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, we have secured a credit facility and our Series A Secured Debentures with 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 our or our subsidiaries' debt.

**Marketing our products and services in international markets may require increased expenses and greater exposure to risks that we may not be able to successfully address.**

We intend to continue to focus our efforts on selling proprietary and nonproprietary software solutions and services in international markets and to devote significant resources to these efforts to expand our international operations as part of our growth strategy. If we are unable to continue achieving market acceptance for our solutions or continue to successfully penetrate international markets, our business will be harmed. In 2016 and 2017, we received approximately 40% and 38% of our consolidated revenues, respectively, from customers located outside of Israel (including but not limited to the United States, Europe, Japan, Asia-Pacific, India and South Africa). The expansion of our existing operations and entry into additional international markets will require significant management attention and financial resources which could adversely affect our business.

Our current international operation and our plans to further expand our international operations subjects us to many risks inherent to international business activities, including:

- Limitations and disruptions resulting from the imposition of government controls;
- Compliance with a wide variety of foreign regulatory 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;
- Political, social and economic instability abroad, terrorist attacks and security concerns in general.;
- Trade restrictions;
- Changes in tariffs;
- Increased exposure to fluctuations in foreign currency exchange rates;

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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 limit our ability to conduct effective tax planning;

Increased financial accounting and reporting requirements and complexities;

Weaker protection of intellectual property rights in some countries;

Greater difficulty in safeguarding intellectual property;

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;

As we continue to expand our business globally, our success will depend, to a large extent, 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.

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

The quality of our solutions, including new, modified or enhanced versions thereof, is critical to our success. Since certain of our software solutions are complex, they may contain errors that cannot be detected at any point in their testing phase. While we continually test all our software solutions for errors or defects and work with customers our partners and end-users (who occasionally participate in our beta-testing of certain programs) to identify and correct them, errors in our technology may be found in the future. Testing for errors or defects is complicated because it is difficult to simulate the breadth of operating systems, user applications and computing environments that our customers use or in the applications developed with our technology. 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 or to develop or integrate their business applications, 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 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. Accordingly, the adverse consequences of, and expenses related to, failures, errors and defects could have a material adverse effect on our business, operating results, and financial condition.

**Failure to meet customer expectations with respect to the implementation and use of our solutions or damage caused by our solutions to our customers' information systems could result in negative publicity, reduced sales and diversion of resources, may cause the cancellation of our contracts and may subject us to liability claims, all of which would harm our business, results of operations, financial condition and growth prospects.**

Some of the products and software services that we provide involve key aspects of customers' information systems and may be considered critical to the operations of our clients' businesses. As a result, our customers have a greater sensitivity to failures in these systems than do customers of other software products generally. In addition, our exposure to legal liability may be increased in the case of contracts in which we become more involved in our clients' operations. If a customer's system fails during or following the provision of products or services by us, or if we fail to provide customers with proper support for our software products or do so in an untimely manner, we are exposed to the risks of cancellation of our contract with the customer and a legal claim for substantial damages being filed against us, regardless of whether or not we are responsible for the failure. While we typically strive to include provisions designed to limit our exposure to legal claims relating to our services and the solutions we develop, these provisions may not adequately protect us or may not be enforceable in all cases. The general liability insurance coverage that we maintain, including coverage for errors and omissions, is subject to important exclusions and limitations. We cannot be certain that this coverage will continue to be available on reasonable terms or will be available in sufficient amounts to cover one or more large claims, or that the insurer will not disclaim coverage as to any future claim. A successful assertion of one or more large claims against us that exceeds our available insurance coverage or changes in our insurance policies, including premium increases or the imposition of large deductible or co-insurance requirements, could adversely affect our profitability.



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In addition, we generally provide our customers with upfront estimates regarding the duration, budget and costs associated with the implementation of our products. Implementation of some of our solutions is complex and meeting the anticipated duration, budget and costs often depends on factors relating to our customers or their other vendors. We may not meet the upfront estimates and expectations of our customers for the implementation of products as a result of our products' capabilities or service engagements by us, our system integrator partners or our customers' IT employees. Consequently, if we fail to meet upfront estimates and the expectations of our customers for the implementation of our products, our reputation could be harmed, which could adversely affect our ability to attract new customers and sell additional products and services to existing customers.

For example, in 2017, Sapiens received a letter from one of its significant customers, in which the customer alleged that Sapiens had materially breached a software development project agreement between them. After carefully examining the customer's allegations Sapiens informed the customer that it had not materially breached any of its obligations under the agreement and that the customer itself had materially breached the agreement. Work on the project was canceled due to the dispute. While Sapiens eventually entered into a settlement agreement with the customer, that settlement resulted in the termination of the software development project agreement, which resulted in a reduction in Sapiens' revenues relative to its estimates for 2017 and (i) a decrease in Sapiens' revenues from this client compared to \$26.5 million in 2016, and (ii) an increase of 4.1% in Sapiens cost of revenues as a percentage of its revenues.

As a result of the termination of the project with this significant customer, the acquisition of StoneRiver and the downsizing of Sapiens' non-insurance and financial services activities in Japan in 2017, Sapiens, executed a cost reduction and reorganization program in 2017. The plan was intended to significantly reduce Sapiens' cost base, restructure and realign its organization for better agility and productivity in utilization of its global workforce and improve its business performance, profitability and cash flow generation. Sapiens incurred \$8.1 million of cost reduction and reorganization program expenses in 2017, primarily related to costs of employee terminations and reduction in leasing facilities globally.

**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.**

Certain of our software solutions are complex and are deployed in a wide variety of network environments. The proper use of these solutions requires training of the customer. If these 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.

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

The loss of any of our major customers or a decrease or delay in orders or anticipated spending by such customers could reduce our revenues and profitability, due to our reliance on such customers. Our customers could also engage in business combinations, which could increase their size, reduce their demand for our products and solutions as they recognize synergies or rationalize assets, and increase or decrease the portion of our total sales concentration with respect to any single customer.

For example, five customers of Sapiens (together with its subsidiaries) accounted for, in the aggregate, 34% and 22% of Sapiens' consolidated revenues in 2016 and 2017, respectively (or 7% and 4%, of our consolidated revenues, in each of the respective years). In addition, Magic Software's (together with its subsidiaries) five largest customers accounted for, in the aggregate, 18% and 27% of its revenues in 2016 and 2017, respectively (or 3% and 5%, of our consolidated revenues, in each of the respective years). One significant customer of TSG accounted for approximately 40% of its revenues in 2016 and 2017 (or 2% of our consolidated revenues, in each of the respective years). One significant customer of InSync accounted for approximately 21% and 28% of its revenues in 2016 and 2017 (or 1% and 1% of our consolidated revenues, in those respective years).

There can be no assurance that the existing customers of our significant subsidiaries and affiliates will enter into new project contracts with us or that they will continue using our technologies and IT services. A significant decline in our revenue stream from existing customers would have an adverse effect on our operating results.



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**There may be consolidation in the markets and industries 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. Furthermore, with respect to TSG in particular, as the number of companies in the defense industry has decreased in recent years, the market share of some prime contractors has increased. Some of these companies are vertically integrated with in-house capabilities similar to TSG's in certain areas. Thus, at times TSG could be seeking business from certain of these prime contractors, while at other times it could be in competition with some of them. Failure to maintain good business relations with these major contractors could negatively impact TSG's business, which focuses on the defense market.

**If we are unable to retain effective control over our subsidiaries, we would cease to consolidate them and our operating results may fluctuate significantly.**

Except for our joint control in TSG, we currently have effective control under IFRS 10 in each of our other investees, despite the lack of absolute majority of voting power in each of Magic Software, Matrix and Sapiens. As a result of our effective control in these investees as of December 31, 2017, we consolidated their financial results with ours throughout the period covered by the financial statements included in Item 18 of this annual report. Prior to our transition to reporting under IFRS, we would consolidate investees in which we held an equity interest only if we held a controlling interest in those companies. Under IFRS 10, we may consolidate entities in which we have effective control. For further information, please see Note 2(3) to our consolidated financial statements included in Item 18 of this annual report

Although it is our board of directors' strategy to maintain effective control over our directly held investees, if we are unable to continue maintaining effective control over one or more of our public subsidiaries as a result of equity issuances to third parties that are unaffiliated with us or otherwise, we would cease to consolidate the operating results of those subsidiaries, based on relevant accounting guidelines. This, in turn, could result in significant fluctuations of our consolidated operating results.

**Sapiens' deed of trust related to its Series B Debentures contains certain affirmative covenants and restrictive provisions that, if breached, could result in an increase in the interest rate and, potentially, an acceleration of Sapiens' obligation to repay those debentures, which it may be unable to effect.**

In the deed of trust that our subsidiary Sapiens has entered into with the trustee for the holders of its Series B Debentures, or the debentures, which it offered and sold in an Israeli public offering and Israeli private placement in September 2017, Sapiens has undertaken to maintain a number of conditions and limitations on the manner in which it can operate its business, including limitations on its ability to undergo a change of control, distribute dividends, incur a floating charge on its assets, or undergo an asset sale or other change that results in a fundamental change in its operations. The deed of trust also requires Sapiens to comply with certain financial covenants, including maintenance of a minimum shareholders' equity level and a maximum ratio of financial indebtedness to shareholders' equity, at levels that are customary for companies of comparable size. These limitations and covenants may force Sapiens to pursue less than optimal business strategies or forego business arrangements that could otherwise be financially advantageous to Sapiens and, by extension, to us and our shareholders. The deed of trust furthermore provides for an upwards adjustment in the interest rate payable under the debentures in the event that Sapiens' 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 the debentures (below BBB-) would constitute an event of default that could result in the acceleration of Sapiens' obligation to repay the debentures, of which there is NIS 280 million (approximately US \$79.2 million) principal amount outstanding, which accelerated repayment may be difficult for Sapiens to effect.

### **Risks Related to our 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.

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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 expensive 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.**

Our success and ability to compete depend in large part upon our ability to protect our proprietary technology. In accordance with industry practice, since we generally do not maintain registered patents on our software solutions technologies, we rely on a combination of trade secret and copyright and intellectual property laws and confidentiality, non-disclosure and assignment-of-inventions agreements 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.

**Some of our software 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.

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**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 to specific matters and cases, these clients are exposed to some of our trade secrets and other proprietary and confidential information, which could harm us.

**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 inputted 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. Our IT systems have been, and are expected to continue to be, the target of malware, ransomware and other cyber-attacks. To date, we are not aware that we have experienced any loss of, or disruption to, material information as a result of any such malware or cyber-attack.

Maintaining the security of our products, computers and networks is a critical issue for us and our customers. Security researchers, criminal hackers and other third parties regularly develop new techniques to penetrate computer and network security measures. In addition, hackers also develop and deploy viruses, worms and other malicious software programs, some of which may be specifically designed to attack our products, systems, computers or networks. Additionally, outside parties may attempt to fraudulently induce our employees or users of our products to disclose sensitive information in order to gain access to our data or our customers' data. These 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 us, our employees or 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 us, our employees, our customers or the individuals affected to a risk of loss or misuse of this information, result in litigation and potential liability or fines for us, damage our brand and reputation or otherwise harm our business. In addition, a failure to protect the privacy of customer and employee confidential data against breaches of network or IT security could result in damage to our reputation.



We have invested in advanced detection, prevention and proactive systems and processes to reduce these risks. Based on independent audits, we believe that our level of protection is in keeping with the industry standards of peer technology companies. We also maintain a disaster recovery solution, as a means of assuring that a breach or cyber-attack does not necessarily cause the loss of our information. We furthermore review our protections and remedial measures periodically in order to ensure that they are adequate. To date, we have not been subject to cyber attacks or other cyber incidents which, individually or in the aggregate, resulted in a material impact to our operations or financial condition.

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 may be unable to anticipate these techniques or implement sufficient preventative measures, and we therefore cannot assure you that our preventative measures will be successful in preventing compromise and/or disruption of our information technology systems and related data. We furthermore cannot be certain that our remedial measures will fully mitigate the adverse financial consequences of any cyber attack or incident.

### **Risks Related to our Traded Securities**

**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, 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 ordinary 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.



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The high and low closing market price of our ordinary shares traded on the Tel Aviv Stock Exchange, or 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, are summarized in the table below:

Year	NASDAQ In USD\$		Tel Aviv Stock Exchange*			
	High	Low	High In NIS	Low	High In USD\$	Low
2017	44.20	35.52	162.10	128.00	42.07	35.49
2016	42.17	23.55	162.70	93.79	42.18	23.61
2015	35.00	20.52	135.20	82.36	35.31	20.98
2014	33.79	21.02	114.10	83.70	32.83	21.52
2013	26.64	16.22	94.99	57.89	26.96	15.51

\* 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.

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 Securities and Exchange Commission 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;

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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 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 share 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 our ADSs are traded on the NASDAQ Global Select Market. Trading in our ordinary shares and ADSs on these 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 American Depositary Shares 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 an example thereof). 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.**

On August 3, 2017 Asseco Poland S.A., or Asseco, then holding 6,823,602 of our ordinary shares, representing 46.3% of our outstanding share capital, sold 2,356,605 of our ordinary shares, representing 16% of our outstanding share capital, to eleven (11) Israeli financial institutions, in privately negotiated sales transactions, for NIS124.14 per share (or \$34.59 per share, based on the representative exchange rate of NIS 3.589 = US \$1.00 reported by the Bank of Israel as of August 3, 2017). On August 22, 2017, Asseco sold an additional 589,151 of our ordinary shares, representing 4% of our outstanding share capital to Mr. Bernstein, our Chief Executive Officer for the same price per share. As a result of those transactions, Asseco currently owns approximately 26.3% of our outstanding share capital.

On October 4, 2017, Asseco entered into a shareholders' agreement with our Chief Executive Officer, under which agreement Asseco has been granted an irrecoverable proxy to vote 1,971,973 of our ordinary shares owned by our Chief Executive Officer, thereby effectively giving Asseco voting power over an aggregate of 39.7% 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.

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

The Sarbanes-Oxley Act of 2002 imposes certain duties on us and on our executives and directors. To comply with this statute, we are required to document and test our internal control over financial reporting, our management is required to assess and issue a report concerning our internal control over financial reporting and our independent registered public accounting firm must issue an attestation report on our internal control procedures. Our efforts to comply with these requirements have resulted in increased general and administrative expenses and a diversion of management time and attention, and we expect these efforts to require the continued commitment of significant resources. We may identify material weaknesses or significant deficiencies in our assessments of our internal control over financial reporting. 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.

**Risks Related to Operations in Israel**

**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, and approximately 60% and 62% of our consolidated revenues in 2016 and 2017, respectively, were generated from the Israeli market. As a result, we are directly influenced by the political, economic and military conditions affecting 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, and 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 Egypt and Syria, which border 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. In addition, relations between Israel and Iran continue to be seriously strained, especially with regard to Iran's nuclear program. 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, they 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 such requirements on our business or work force and no prediction can be made as to the effect on us of any expansion of such obligations.

**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 U.S. Tax Cuts and Jobs Act of 2017, or the 2017 Tax Act, enacted in December 2017, introduced significant changes to the U.S. Internal Revenue Code.



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At December 31, 2017, we have not completed our accounting for the tax effects of the enactment of the 2017 Tax Act; however, we have made reasonable estimates of the effects on the existing deferred tax balances for which provisional amounts have been recorded.

The 2017 Tax Act requires complex computations to be performed that were not previously required under U.S. tax law, significant judgments to be made in interpretation of the provisions of the 2017 Tax Act and significant estimates in calculations, and the preparation and analysis of information not previously relevant or regularly produced. The U.S. Treasury Department, the IRS, and other standard-setting bodies could interpret or issue guidance on how provisions of the 2017 Tax Act will be applied or otherwise administered that is different from our interpretation. As we complete our analysis of the 2017 Tax Act, collect and prepare necessary data, and interpret any additional guidance, we may make adjustments to provisional amounts that we have recorded that may impact our provision for income taxes in the period in which the adjustments are made.

The base erosion and profit shifting, or BEPS, project undertaken by the Organization for Economic Cooperation and Development, or OECD, may have adverse consequences to our tax liabilities. The BEPS project contemplates changes to numerous international tax principles, as well as national tax incentives, and these changes, when adopted by individual countries, could adversely affect our provision for income taxes. Countries have only recently begun to translate the BEPS recommendations into specific national tax laws, and it remains difficult to predict the magnitude of the effect of such new rules on our financial results.

**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 have been granted “Approved Enterprise”, or AE, status under the Israeli Law for the Encouragement of Capital Investments, 5719-1959, or the Investment Law, which provide certain benefits, including tax exemptions and reduced tax rates. We were also eligible for certain tax benefits provided to Benefited Enterprises, or BEs, under the Investment Law. Income not eligible for AE benefits is taxed at the regular corporate tax rate (24% for 2017 and 23% for 2018 and thereafter).

In recent years, certain of our subsidiaries that have been granted such benefit tax status have notified the Israel Tax Authority that they apply the new tax Preferred Enterprise, or PFE, regime under the Investment Law instead of our AE and BE. Accordingly, these subsidiaries are eligible for certain tax benefits provided to PFEs under the Investment Law. Beginning in 2017, part of our taxable income in Israel is eligible for benefits under Amendment 73 to the Investment Law (as described in Item 5 below). If we do not meet the conditions stipulated in the Investment Law and the regulations promulgated thereunder, as amended, for the Preferred Tax Enterprise, or PTE, any of the associated tax benefits may be cancelled and we would be required to repay the amount of such benefits, in whole or in part,

including interest and CPI linkage (or other monetary penalties). Further, in the future these tax benefits may be reduced or discontinued. If these tax benefits are reduced, cancelled or discontinued, our Israeli taxable income would be subject to regular Israeli corporate tax rates, which would harm our financial condition and results of operation. Additionally, if we increase our activities outside of Israel through acquisitions, for example, our expanded activities might not be eligible for inclusion in future Israeli tax benefit programs

In the event of distribution of dividends from said tax-exempt income, the amount distributed will be subject to corporate tax at the rate that would have otherwise been applicable on the AE/BE's income.

**Fluctuations in foreign currency values may affect our business and results of operations.**

Due to our extensive operations and sales in Israel, most of our revenues and expenses from our IT services are denominated in NIS. For financial reporting purposes, we translate all non-U.S. dollar denominated transactions into dollars in accordance with IFRS. Therefore, we are exposed to the risk that a devaluation of the NIS relative to the dollar will reduce our revenue growth rate in dollar terms. On the other hand, a significant portion of our revenues from proprietary software products and related services is currently denominated in other currencies, particularly the Euro, Japanese Yen, British Pound, India Rupee, or INR, and Polish Zloty, or PLN, while a substantial portion of our expenses relating to the proprietary software products and related services, principally salaries and related personnel expenses, is denominated in NIS. As a result, the depreciation of the Euro, Japanese Yen, British Pound, INR and PLN relative to the U.S. dollar reduces our dollar recorded revenues from sales of our proprietary software products and related services that are denominated in those currencies and thereby harms our results of operations. In addition, the appreciation of the NIS relative to the dollar increases the dollar recorded value of expenses that we incur in NIS in respect of such proprietary software products sales, and, therefore, could adversely affect our results of operations and harm our competitive position in the markets. The appreciation of the NIS in relation to the dollar (based on the change in the exchange rate reported by the Bank of Israel from the start to the conclusion of each year) amounted to 1.5% and 9.8% for the years ended December 31, 2016 and 2017, respectively. Inflation in Israel further increases the dollar cost of our NIS-based operating expenses and adversely impact the profits that we realize from our proprietary software products sales. There was no such inflation in either of the years ended December 31, 2016 or 2017, respectively, as the NIS was subject to deflation of 0.2% during 2016 and to inflation of 0.4% during 2017.

In certain locations, we have engaged and may continue in the future to 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."

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**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 Israeli Companies Law, 5759-1999, or 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.”

**Curacao law makes it more difficult for Sapiens to consummate a change of control transaction.**

Sapiens’ status as a Curacao company makes it more challenging (compared to Israel, various US states and other jurisdictions) to consummate the sale of Sapiens from which its shareholders could benefit economically via the payment of a premium on their shares relative to the then-current market price. Curacao law does not permit a reverse triangular merger, a commonly-utilized transaction structure for the acquisition of publicly traded companies such as Sapiens, where shareholders receive cash. Curacao law allows for the acquisition of a publicly traded company such as Sapiens for cash through a tender offer, provided that the offeror acquires at least 95% of the company’s issued and outstanding share capital (which 95% threshold may be reduced under certain circumstances to 90% or 80% in case of a pre-wired asset sale), following which the offeror can purchase the remaining shares subject to court approval and possibly the exercise of certain dissenters’ rights. Since Curacao law does not permit a cash merger and due to the challenges in obtaining such level of acceptance of the tender offer, a potential buyer might need to use different structures to acquire Sapiens, e.g. migrating the company to another jurisdiction that allows for a cash merger as a means to acquire publicly traded companies; however, such process may be very time-consuming and could therefore prevent such a transaction from occurring. An additional option under Curacao law is a sale of assets, which is likely to be generally less efficient to Sapiens’ shareholders from a tax perspective. Each of the foregoing limitations or disadvantages of effecting an acquisition of Sapiens or its assets in which shareholders realize a premium could furthermore adversely impact the market price of Sapiens shares and therefore our shares in an ongoing manner. Sapiens’ shareholders have approved the migration of Sapiens from Curacao to the Cayman Islands, which migration is still pending certain tax approvals. Please see Sapiens’ proxy statement for its 2017 annual meeting of shareholders, appended as Exhibit 99.1 to its Report of Foreign Private Issuer on Form 6-K furnished to the SEC on October 26, 2017.

**Your rights and responsibilities as a shareholder will be 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.



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**Sapiens was formed under the laws of Curaçao and the rights of shareholders under Curaçao law differ from those under U.S. law and Israeli law, therefore, you may have fewer protections as a shareholder.**

Sapiens' corporate affairs are currently governed by its articles of association, the Civil Code of Curaçao and the civil law of Curaçao. The rights of shareholders to take legal action against Sapiens' directors, actions by minority shareholders and the fiduciary responsibilities of our directors under Curaçao law are to a large extent governed by the Civil Code of Curaçao, the civil law of Curaçao and applicable case law. The rights of shareholders and the fiduciary responsibilities of Sapiens' directors under Curaçao law are not as clearly established as they would be under statutes or judicial precedents in some jurisdictions in the U.S. and in Israel. In particular, Curaçao has a less developed body of securities laws as compared to the U.S., and some states (such as Delaware) have more fully developed and judicially interpreted bodies of corporate law. In addition, Curaçao law does not generally distinguish between public and private companies, and some of the protections and safeguards (such as statutory pre-emption rights, except to the extent that they are expressly provided for in the Articles) that investors may expect to find in relation to a public company are not provided for under Curaçao law. As a result of all of the above, holders of Sapiens common shares, such as Formula, may have more difficulty in protecting their interests in the face of actions taken by Sapiens' management, directors or major shareholders than they would as shareholders of a U.S. or Israeli company.

**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, 2017. 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, 2018, 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.

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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.

**ITEM 4. INFORMATION ON THE COMPANY**

**A. History and Development of the Company**

Both our legal name and our commercial name is Formula Systems (1985) Ltd. We were incorporated in Israel on April 2, 1985. We maintain our principal executive offices at 5 Haplada Street, Or Yehuda 60218, Israel and our telephone number is 011-972-3-5389487. Our agent in the United States is Corporation Service Company and its address is 2711 Centerville Road, Suite 400, Wilmington, DE 19808. In 1991, we completed the initial public offering of our ordinary shares on the TASE. In October 1997, we completed the listing of our ADSs on the NASDAQ Global Market. As of January 3, 2011 our ADSs have been listed on the NASDAQ Global Select Market.

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

In November 2010, Emblaze Ltd., our former controlling shareholder, sold its controlling stake in us to Asseco Poland SA, or Asseco, a Polish IT company listed on the Warsaw Stock Exchange. Asseco currently has voting power over an aggregate of 39.7% 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). Please see “Item 7. Major Shareholders and Related Party Transactions— A. Major Shareholders— Recent Significant Changes in Holdings of Major Shareholders” for more details concerning Asseco’s holdings in our company.

We have adopted a strategy of seeking to create positive economic impact and long-term value for our investors 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 therefore 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.

### *Capital Expenditures and Divestitures*

Our principal investment and divestiture activities since the start of our 2015 fiscal year are described below. For additional information concerning our related financing activities since the start of our 2015 fiscal year, see “Item 5. Operating and Financial Review and Prospects— B. Liquidity and Capital Resources— Sources of Financing.”

*Changes in our percentage ownership of Sapiens.* As of January 1, 2015, our percentage interest in Sapiens was 50.2%. During the last three years, mainly due to exercises of options by employees of Sapiens, our’ direct interest in Sapiens’ outstanding common shares was diluted to 49.1% as of December 31, 2015, 48.9% as of December 31, 2016 and 48.1% as of December 31, 2017. ‘Our interest in Sapiens’ common shares is currently 48.1%. Pursuant to our acquisitions of Sapiens common shares, we invested an aggregate of \$0.4 million in 2015 (there were no such purchases in 2016 or 2017). The sources of such funds have been our working capital and loans from financial institutions.

*Changes in our percentage ownership of Magic Software.* As of January 1, 2015, we held 45.1% of Magic Software’s outstanding share capital. We purchased additional shares in 2015 and 2016, which resulted in our current percentage interest increasing to 47.1%. Pursuant to our acquisitions of Magic Software’s ordinary shares, we have invested an aggregate of \$3.7 million and \$2.7 million in 2015 and 2016, respectively. The sources of such funds have been our working capital and loans from financial institutions.

*Changes in our percentage ownership of Matrix.* As of January 1, 2015, our percentage interest in Matrix was 50.2%. During the last three years, mainly due to exercises of options by employees of Matrix, ‘our direct interest in Matrix’s outstanding share capital was diluted to 50.0% as of December 31, 2015 and 2016, and to 49.5% as of December 31, 2017. ‘Our interest in Matrix’s outstanding share capital is currently 49.2%. Pursuant to our acquisitions of Matrix shares, we invested an aggregate of \$0.2 million in 2016 (there were no such purchases in 2015 or 2017). The sources of such funds have been our working capital and loans from financial institutions.

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*Acquisitions by Formula:*

*Acquisition of Michpal.* In January 2017, Formula directly acquired all of the share capital of Michpal, an Israeli-based company that develops, sells and supports a proprietary on-premise payroll software solution for processing traditional payroll stubs to Israeli enterprise and payroll service providers. Formula paid a purchase price of \$22.1 million. For further information, please see Note 4 (i)(b) to our consolidated financial statements included in Item 18 of this annual report.

*Acquisition of TSG.* In May 2016, Formula and IAI each acquired 50% of TSG, a subsidiary, and the military arm, of Ness Technologies, which is engaged in the fields of command and control systems, intelligence, homeland security and cyber-security. Each of Formula and IAI paid a purchase price of \$25.8 million. For further information, please see Note 4(i)(a) to our consolidated financial statements included in Item 18 of this annual report.

*Acquisitions by Sapiens:*

*Acquisition of StoneRiver.* In the first quarter of 2017, Sapiens acquired StoneRiver, a US-based provider of a wide range of technology solutions and services to insurance carriers, agents, and broker-dealers, whose product groups encompass P&C solutions, Life solutions, workers compensation, and reinsurance solutions for all major business lines. The acquisition will enable Sapiens to expand the range of solutions and services that it offers to the North American insurance industry and to further accelerate its growing market footprint in the U.S. P&C space. Sapiens paid approximately \$100 million in cash, subject to certain adjustments based on working capital, transaction expenses, unpaid debt and certain litigation matters. For further information, please see Note 4(ii)(e) to our consolidated financial statements included in Item 18 of this annual report.

*Acquisition of Adaptik.* In the first quarter of 2018, Sapiens acquired Adaptik, a New Jersey company engaged in the development of software solutions for P&C insurers, including policy administration, rating, billing, customer management, task management and product design. The total purchase price was approximately \$19.5 million in cash, subject to adjustment and about \$3.5 million is subject to earn out-based specific criteria. For further information, please see Note 25(ii) to our consolidated financial statements included in Item 18 of this annual report.

*Acquisition of KnowledgePrice.com.* On December 27, 2017, Sapiens acquired KnowledgePrice.com, a Latvian company that specializes in digital insurance services and consulting. This acquired entity will join Sapiens' Digital Division, which focuses on digital and business intelligence services and solutions, including portal and digital distribution offerings to customers worldwide. Sapiens' acquisition of KnowledgePrice involved the addition of 50 digital insurance technology experts, including innovative portal services. KnowledgePrice has extensive expertise

and long-term experience with open technologies, agile methodologies and best practices surrounding digital insurance and the deployment of portals. The total purchase price was approximately €5,840,500, out of which €3,100,000 was paid at closing and €254,000 in January 2018, with the remainder subject to (i) earn-outs based on the revenues and profitability targets of KnowledgePrice.com over three years (2018-2020) following the closing, valued at €1.4 million at the acquisition date and (ii) €0.9 million related to a retention payment subject to continued employment. For further information, please see Note 4(ii)(f) to our consolidated financial statements included in Item 18 of this annual report.

*Acquisition of MaxPro.* In the third quarter of 2016, Sapiens acquired Maximum Processing Inc., or MaxPro. MaxPro is the provider of the Stingray System, a P&C insurance administration suite targeted towards the tier 4-5 U.S. market, as well as managing general agents, or MGAs, third-party administrators, or TPAs, and insurance brokers. Sapiens paid \$4.3 million in cash for this acquisition (including \$1.5 million that Sapiens placed in escrow at the closing). The seller also has the right to receive performance-based payments of up to \$3.1 million relating to achievements of revenue and profitability goals over three years (2016, 2017, 2018), which are also subject to continued employment. As of December 31, 2017, the estimated fair value of the contingent payment was recorded as \$422,000. For further information, please see Note 4(ii)(c) to our consolidated financial statements included in Item 18 of this annual report.

*Acquisition of 4Sight.* In the third quarter of 2016, Sapiens acquired 4Sight Business Intelligence Inc., or 4Sight, a provider of business intelligence reports. 4Sight offers insurance-specific business intelligence, or BI, solutions, including 4SightBI, a P&C-specific, off-the-shelf business intelligence (BI) product. Sapiens paid \$330,000 in cash for this acquisition. In addition, the seller of 4Sight may receive additional performance-based payments of up to \$2.6 million relating to achievement of revenue and profitability goals over three years (2016, 2017, 2018), which are also subject to continued employment and therefore were not included as part of the purchase price. For further information, please see Note 4(ii)(d) to our consolidated financial statements included in Item 18 of this annual report.

*Acquisition of Ibexi.* In May 2015, Sapiens acquired IBEXI Solutions Private Limited (“IBEXI”), an India-based provider of insurance solutions and services, which services 18 insurers in both the P&C and L&P markets throughout Southeast Asia. The total purchase price in this acquisition was approximately \$4.9 million, of which \$4.0 million was paid in cash by Sapiens at the closing, with the remaining \$0.9 million subject to adjustment based on certain future performance criteria. As of December 31, 2017, the estimated fair value of the contingent payment was recorded as \$251,000. For further information, please see Note 4(ii)(b) to our consolidated financial statements included in Item 18 of this annual report.

*Acquisition of Insseco.* In August 2015, Sapiens acquired Insseco, a Poland-based software and services provider for the insurance market, from Asseco, the controlling shareholder of Formula, which helped Sapiens to establish a strong presence in the Polish insurance market. Sapiens paid approximately \$9.1 million in cash for Insseco, subject to upwards adjustment based on its achieving future revenue goals during the five years following the acquisition. The estimated fair value of the remaining contingent payments was recorded as \$424,000 as of December 31, 2017. For further information, please see Note 4(ii)(a) to our consolidated financial statements included in Item 18 of this annual report.



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*Acquisitions by Matrix:*

*Acquisition of Alius Corp.* In the first quarter of 2018, Matrix acquired 50.1% of the share capital of Alius in the United States for approximately \$3 million in cash, plus an additional \$3 million to be paid in two years. Matrix and the seller have a mutual option to purchase and sell (respectively) the remaining shares within two years following the closing date under the agreement. Alius provides consulting services in the area of regulatory and compliance in the US financial markets. For further information, please see Note 25(i) to our consolidated financial statements included in Item 18 of this annual report.

*Acquisition of Aviv.* In December 2016, Matrix acquired 85% of the share capital of Aviv Management Engineering Systems Ltd., a company engaged in management and project consulting, focusing in four areas of expertise: environmental planning, project management, urban and physical planning and management consulting. Matrix paid NIS 19.7 million (approximately \$5.1 million). Matrix and the seller hold mutual call and put options, respectively, for the remaining 15% interest in Aviv. Due to the put option, we recorded a redeemable non-controlling interest in Aviv in an amount of \$1.5 million as of the acquisition date. In addition, the seller is eligible for future consideration, valued at NIS 1.2 million (approximately \$0.3 million), as of the acquisition date, subject to obtaining accumulated operating income targets over a three year period. . As of December 31, 2017, the Aviv redeemable non-controlling interest was recorded at a value of \$1.9 million. For further information, please see Note 4(iv)(h) to our consolidated financial statements included in Item 18 of this annual report.

*Acquisition of Second to None Solutions, or Stons.* In November 2016, Matrix acquired 55% of the share capital of Second to None Solutions Inc., a certified distributor of IBM products to U.S federal and enterprise customers. Matrix paid \$0.3 million. Matrix and the seller hold mutual call and put options, respectively, for the remaining 45% interest in Stons. Due to the put option, we recorded a redeemable non-controlling interest in Stons in an amount of \$2.2 million as of the acquisition date. In addition, the seller is eligible for future consideration, which was valued at \$0.5 million as of the acquisition date, subject to obtaining accumulated operating income targets over a three-year period. As of December 31, 2017, the Stons redeemable non-controlling interest was recorded at a value of \$2.4 million. For further information, please see Note 4(iv)(g) to our consolidated financial statements included in Item 18 of this annual report.

*Acquisition of Network Infrastructure Technologies, or NIT.* In October 2016, Matrix acquired 60% of the share capital of Network Infrastructure Technologies Inc., a provider of IT help desk services for the healthcare industry. Matrix paid \$6.7 million. Matrix and the seller hold mutual call and put options, respectively, for the remaining 40% interest in NIT. Due to the put option, we recorded a redeemable non-controlling interest in an amount of \$3.9 million as of the acquisition date. As of December 31, 2017, the NIT redeemable non-controlling interest was recorded at a value of \$3.9 million. For further information, please see Note 4(iv)(f) to our consolidated financial statements included in Item 18 of this annual report.

*Acquisition of Programa.* In March 2016, Matrix acquired 60% of the share capital of Programa Logistics System Ltd., an Israeli provider of advisory services and design and development of solutions in supply chain, production and logistics. Matrix paid NIS 7.3 million (approximately \$1.9 million). In addition, the sellers may be eligible for future consideration, which was valued at NIS 1.1 million (approximately \$0.3 million) as of the date of acquisition date, subject to obtaining accumulated operating income targets over a three-year period. Matrix and the seller hold mutual call and put options, respectively, for the remaining 40% interest in Programa. As of December 31, 2017, the value of our redeemable non-controlling interest in Programa was recorded as \$2.3 million. For further information, please see Note 4(iv)(e) to our consolidated financial statements included in Item 18 of this annual report.

*Acquisition of Onno Apps by Matrix.* In May 2015, Matrix completed the acquisition of all of the outstanding shares of Onno Apps Ltd., an Israeli based service provider specializing in mobile applications development services, for total consideration of NIS 4.6 million (approximately \$1.2 million). In addition, the sellers may be eligible for future consideration, valued at \$0.3 million as of the acquisition date, subject to obtaining accumulated operating income targets during three years commencing on January 1, 2016, not exceeding NIS 5.0 million (approximately \$1.3 million). For further information, please see Note 4(iv)(d) to our consolidated financial statements included in Item 18 of this annual report.

*Acquisition of Hydus Solutions by Matrix.* In April 2015, Xtivia Inc. (a wholly owned subsidiary of Matrix) completed the acquisition of all of the outstanding shares of Hydus Inc. in total consideration of \$2.5 million. Hydus Inc. is a U.S based consulting firm specializing in software services in the field of Enterprise Information Management, or EIM. In addition, the sellers may be eligible for future consideration, valued at \$1.7 million as of the acquisition date, subject to achievement of accumulated operating income targets over the course of three years (not exceeding Hydus operating income). For further information, please see Note 4(iv)(c) to our consolidated financial statements included in Item 18 of this annual report.

*Acquisitions by Magic:*

*Acquisition of Futurewave Systems Inc.* In late December 2017, Magic Software acquired a 100% share interest in Futurewave Systems, Inc, a U.S.-based full-service provider of consulting and outsourcing solutions for IT personnel, for total consideration of \$3.0 million. For further information, please see Note 4(iii)(e) to our consolidated financial statements included in Item 18 of this annual report.

*Acquisition of Roshtov.* In July 2016, Magic Software acquired a 60% equity interest in Roshtov Software Industries Ltd, the developer of the Clicks development platform, which is used in the design and management of patient-file oriented software solutions for managed care and large-scale healthcare providers. The aggregate purchase price for the 60% interest was approximately \$20.6 million in cash and Magic Software and the seller hold mutual call and put options, respectively, for the remaining 40% interest in Roshtov. Due to the put option, Magic recorded a redeemable non-controlling interest in an amount of \$14.0 million at the acquisition date. As of December 31, 2017, our redeemable non-controlling interest in Roshtov was recorded at a value of \$14.7 million. For further information, please see Note 4(iii)(c) to our consolidated financial statements included in Item 18 of this annual report.



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*Acquisition of Shavit.* In October 2016, Magic Software acquired the entire share interests in Shavit Software (2009) Ltd., an Israeli-based company that specializes in software professional and outsourced management services, for total consideration of \$6.8 million, of which \$4.7 was paid upon closing. The remaining \$2.1 million of the purchase price was allocated to a deferred payment and to an additional payment that is contingent upon the acquired business meeting certain operational targets in 2017. Magic Software's management believes the acquisition will broaden its professional service offering to its existing and new customers in Israel. In 2017, Magic Software paid the seller \$0.9 million with respect to the deferred payment. The remaining obligation to the seller, allocated to deferred payment and contingent payment, was recorded as \$2.4 million as of December 31, 2017. The amount was paid in full during the first quarter of 2018 as mutually agreed between the parties, leaving no other amounts due. For further information, please see Note 4(iii)(d) to our consolidated financial statements included in Item 18 of this annual report.

*Acquisition of Infinigy Solutions by Magic Software.* In June 2015, Magic Software acquired a 70% interest in Infinigy Solutions LLC, a US-based services company focused on expanding the development and implementation of technical solutions throughout the telecommunications industry with offices over the US, providing nationwide coverage and support for wireless engineering, deployment services, surveying, environmental service and project management, for a total consideration of \$6.5 million, of which \$5.6 was paid upon closing and \$0.9 million is contingent upon the acquired business meeting certain operational targets in 2016 and 2017. In July 2016, Magic Software paid the seller \$0.5 million with respect to the acquired business meeting certain of its 2016 operational targets. In 2017, the acquired business did not meet its operational targets and, therefore, as of December 31, 2017, the seller is not entitled to any additional contingent payments. In addition, Magic Software and the seller hold mutual call and put options, respectively, for the remaining 30% interest in the company. Due to the put option, Magic Software recorded a redeemable non-controlling interest in Infinigy in an amount of \$3.6 million at the acquisition date. As of December 31, 2017, the value of the Infinigy redeemable non-controlling interest was recorded as \$2.2 million. For further information, please see Note 4(iii)(b) to our consolidated financial statements included in Item 18 of this annual report.

*Acquisition of Comblack IT by Magic Software.* In April 2015 Magic Software acquired a 70% interest in Comblack IT Ltd., an Israeli-based company that specializes in software professional and outsource management services for mainframes and complex large-scale environments, for a total consideration of \$1.8 million, of which \$1.5 million was paid upon closing and \$0.3 million was contingent upon the acquired business meeting certain operational targets in 2015. Magic Software and the seller hold mutual call and put options, respectively, for the remaining 30% interest in the company. Due to the put option, we recorded a redeemable non-controlling interest in an amount of \$1.0 million as of the acquisition date. In March 2016, Magic Software paid the seller the remaining contingent payments for meeting the operational targets for 2015. As of December 31, 2017, the Comblack redeemable non-controlling interest was recorded at a value of \$7.4 million. For further information, please see Note 4(iii)(a) to our consolidated financial statements included in Item 18 of this annual report.

During the year ended December 31, 2016, Formula and its subsidiaries and affiliates completed several additional acquisitions for a total cash consideration of approximately \$8.9 million. These acquisitions generally enhance our technologies, product and services offerings. Pro forma results of operations for these acquisitions have not been presented because they are not material to the consolidated results of operations, either individually or in the



aggregate. For further information, please see Note 4(iii)(e) to our consolidated financial statements included in Item 18 of this annual report.

During the year ended December 31, 2015, Formula and its subsidiaries and affiliates completed additional acquisitions for total cash consideration of approximately \$1.9 million and increased their equity interest in two existing subsidiaries and one affiliate for total consideration of \$2.3 million. These acquisitions generally enhance our technologies, product and services offerings. Pro forma results of operations for these acquisitions have not been presented because they are not material to the consolidated results of operations, either individually or in the aggregate.

## **B. Business Overview**

### *General*

We are a global software solutions and IT professional services holdings company that is principally engaged through our directly held investees in providing proprietary and non-proprietary software solutions and IT professional services, software product marketing and support, computer infrastructure and integration solutions, and training and integration. We deliver our solutions in over 50 countries worldwide to customers with complex IT services needs, including a number of “Fortune 1000” companies.

Except for providing our investees with our management, technical expertise and marketing experience to help them create a consecutive positive economic impact and long-term value, and direct their overall strategy through our active involvement, we do not conduct independent operations at our parent company level. Following our transition to IFRS during 2016, we consolidate the results of all of the entities in which Formula holds an equity interest, other than our equity investee TSG.

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We operate through our subsidiaries: Matrix, Sapiens, Magic Software, InSync and, as of January 2017, Michpal and through our equity investee TSG (since May 2016). The following is a description of the areas of our business activity:

### *IT Services*

We design and implement IT solutions and software systems which improve the productivity of our customers' existing IT assets, enable them to effectively manage their operations and reduce their business risks in the face of changing business environments. In delivering our IT services, we at times use proprietary software developed by members of the Formula Group. We provide our IT services across the full system development life cycle, including definition of business requirements, developing customized software, implementing software and modifying it based on the customer's needs, system analysis, technical specifications, coding, testing, training, implementation and maintenance. We perform our projects on-site or at our own facilities.

### *Proprietary Software Solutions*

We design, develop and market proprietary software solutions for sale in selected niche markets worldwide. We regularly seek opportunities to invest in or acquire companies with attractive proprietary software solutions under development which we believe to have market potential. The majority of our investments and acquisitions in this area have been in companies with products beyond the prototype stage. In addition, from time to time, we selectively invest in companies with proven technology where we believe we can leverage our experience to enhance product positioning and increase market penetration. We provide our management and technical expertise, marketing experience and financial resources to help bring these products to market. We also assist the members of our group to form teaming agreements with strategic partners to develop a presence in international markets.

### *The Formula Group*

Formula is the parent company of investees, which, as noted above, we refer to collectively (together with Formula) as the Formula Group. As of December 31, 2017, we held 90% of the shares of InSync, a 49.5% interest in Matrix, a 48.1% interest in Sapiens, a 47.1% interest in Magic Software, a 50% interest in TSG through our equity holdings, and the entire share capital of Michpal. We have effective control of each of the companies in the Formula Group other than TSG for purposes of consolidation under IFRS. We provide all our investees with our management, technical expertise and marketing experience to help them create a positive economic impact and long-term value.

We direct the overall strategy of our investees. While our investees each have independent management, we monitor their growth through our active involvement in the following matters:

- strategic planning;
- marketing policies;
- senior management recruitment;
- investment and budget policy; and
- financing policies.

We promote the synergy and cooperation among our investees by encouraging the following:

- transfer of technology and expertise;
- leveling of human resources demand;
- combining skills for specific projects;
- formation of critical mass for large projects; and
- marketing and selling the Formula Group's products and services to its collective customer base.

We, through investees, offer a wide range of integrated software solutions and IT professional services, such as implementation and integration projects of computing and software, outsourcing, software project management, software development, IT managed services, software testing and QA, depending on specific needs of the customer and depending on the subject expertise necessary professional all case by case basis, and design, develop and market proprietary software solutions for sale in selected niche markets, both in Israel and worldwide. Formula's Chief Executive Officer and Chief Financial Officer serve as the Chief Executive Officer and Chief Financial Officer, respectively, of Magic Software as well.

### *Our Subsidiaries*

#### *Matrix*

Matrix IT Ltd. is Israel's leading IT services company as demonstrated in recent research reports of the Israeli IT market, published by the research companies IDC and STKI. Matrix employs approximately 8,600 software, hardware, integration and training personnel, which provide advanced IT services to hundreds of customers in the Israeli and the US markets. Matrix executes some of the largest IT projects in Israel. It develops and implements leading technologies, software solutions and products. Matrix provides infrastructure and consulting services, outsourcing, offshore, near-shore, training and assimilation services. Matrix represents and markets leading software vendors. Among its customers are most of the leading Israeli organizations and companies in the industry, retail, banking and finances, education and academe, Hi-tech and ISVs, telecom, defense, health and the government/public sectors. Matrix is traded on the Tel Aviv Stock Exchange.



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The solutions, services and products supplied by Matrix are designed to improve Matrix's customers' competitive capabilities, by providing a response to their unique IT needs in all levels of their operations.

*Areas of Operation*

Matrix operates through its directly and indirectly held subsidiaries in the following principal areas:

- Software solutions and value-added services in Israel.
- Software solutions and services in the United States.
- Computer infrastructure and integration solutions.
- Software product marketing and support.
- Training and integration.

*Software solutions and value added services in Israel:* Matrix's primary activities in this area include development of software systems and services, including integration projects of systems and software, outsourcing, management of software projects, software development, testing of developed technology, quality assurance and software services, customized for the specific needs of each customer and for the professional expertise required, all on a case by case basis. The scope of work invested in each element varies from one customer to the other. In 2017, under this line of business, Matrix recorded revenues of approximately \$489.3 million, compared to \$402.6 million in 2016, an increase of approximately 22%. Operating income was approximately \$26.7 million in 2017, compared to \$20.2 million in 2016, an increase of approximately 32%. In 2017, activity in software solutions and value-added services in Israel accounted for approximately 61% of Matrix's revenues and approximately 49% of its operating income.

*Software solutions and services in the United States:* Matrix provides solutions and expert services mainly in the area of governance risk and compliance ("GRC"), including activities in the following areas: risk management, fraud management, anti-money laundering, and regulatory compliance security in these areas all through its subsidiary Matrix-IFS. Matrix also provides solutions and technological services in the areas of portals, BI (Business Intelligence), DBA (Database Administration), CRM (Customer Relations Management) and EIM (Enterprise Information Management). This sector also includes IT help desk services for healthcare and software distribution services, in particular for IBM and Microsoft. In 2017, under this line of business, Matrix recorded revenues of approximately \$91.0 million, compared to \$74.6 million in 2016, an increase of approximately 22%. Operating income in 2017 was approximately \$11.5 million, compared to \$11.9 million in 2016, a decrease of approximately 3%. In 2017, activity in the U.S accounted for approximately 11% of Matrix's revenues and for approximately 21% of its operating income, because of higher operating gross margin in the U.S.

*Computer infrastructure and integration solutions:* Matrix activities in this area consist of: (i) providing computer and telecommunication infrastructure solutions; (ii) selling and marketing computer equipment, licenses and peripherals to enterprises together with services; and (iii) selling and marketing cloud based solutions (under the “CloudZone” division) and services relating to databases and “big data” (under the “DataZone” division). Amongst Matrix infrastructure and integration solutions included are solutions of IBM, Oracle Red Hat, Boomi and others. In 2017, under this line of business, Matrix recorded revenues of approximately \$133.6 million, compared to \$109.0 million in 2016, an increase of approximately 23%. Operating income in 2017 was approximately \$6.0 million, compared to \$4.7 million in 2016, an increase of approximately 26%. In 2017, activity in computer infrastructure and integration solutions accounted for approximately 17% of Matrix’s revenues and for approximately 11% of its operating income.

*Software product marketing and support:* Matrix activities in this area include marketing and support for various software products (mainly originated outside of Israel) and providing professional support for these products to customers, including marketing and upgrade maintenance of software products. In 2017, under this line of business, Matrix recorded revenues of approximately \$35.4 million, compared to \$35.2 million in 2016, an increase of approximately 1%. Operating income in 2017 was approximately \$5.7 million, compared to \$5.1 million in 2016, an increase of approximately 12%. In 2017, activity in software product marketing and support accounted for about 5% of Matrix’s revenues and for approximately 10% of its operating income.

*Training and integration:* Matrix’s activities in this area consist of operating a network of training centers which provide advanced courses for high-tech professionals, courses for developers and professional training, and soft skills and management training, and providing training and instructions with respect to computer systems. In 2017, under this line of business, Matrix recorded revenues of approximately \$45.3 million, compared to \$41.1 million in 2016, an increase of approximately 10%. Operating income in 2017 was approximately \$4.8 million, compared to \$3.7 million in 2016, an increase of approximately 30%. In 2017, activity in training and integration accounted for approximately 6% of Matrix’s revenues and for approximately 9% of its operating income.

Matrix provides solutions, services and products primarily to the following market sectors (or verticals): banking and finance, high-tech and startups, industry and retail, government and the public sector, defense, healthcare, and education and academia.

Matrix offers to each market sector a broad range of solutions and services, customized for the specific needs of that sector. Matrix operates dedicated departments, each of which specializes in a particular sector. Each such department supplies customers in that sector with a products and services offering providing a response to most of its IT requirements, based on an in-depth business understanding of the challenges which are typical to that sector. Matrix established a separate division for each particular market sector, which manages the operations relating to that sector.

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Specialization in the various sectors is reflected in the applications, professional and marketing aspects of each sector. Accordingly, the professional and marketing infrastructure required to support each market sector is developed to address such sector's specific needs.

In addition to the five sector-based areas of operations, Matrix operates three horizontal divisions providing specialist services for all of the different sectors of operations as follows:

Expertise centers – Matrix operates about 20 “expertise centers” (“Centers of Excellence”), in areas such as: Cloud Computing, Internet of Things (IOT), Digital, User Experience, Mobility (Mobile Technology), Analytical BI and Big Data, DevOps, Service Oriented Architecture (SOA), Customer Relations Management (CRM), Enterprise Resource Planning (ERP), eXtended Relationship Management (XRM), Open Source, Security & Cyber, Machine Learning and Artificial Intelligence. These expertise centers are based on business vertical concept, which is targeted to yield significant added value to the company's customers, including: group of professionals that are focused and have expertise in the related technologies, hands-on experience and expertise in the related technologies, methodologies, and best practices; and strategic management consulting center that provides customers with diverse consultation services on topics such as organization, strategy, complex project management in areas such as environmental planning, transportation and chain of supply, business development and technological development. Matrix Global - Quality assurance and related professional services under an offshore/“nearshore” model.

In the context of its offshore/“nearshore” activities, Matrix conducts IT-related activities, including content development, quality assurance, maintenance, customer call center services indexing and related activities that are performed in a specific region or country where such activities can be conducted most inexpensively. Matrix offers its enterprise customers these types of solutions, whether via its “nearshore” Talpiot project, via its offshore solutions that are based on its development centers in Bulgaria and Macedonia or via back-office and call center services through Babcom Centers Ltd. (a company located in the Galilee, housing thousands of educated and skillful men and women interested in developing a career near their homes). Periods of economic cautiousness (such as the present time) provide an added incentive for these types of inexpensive economic solutions. This trend is likely to expand Matrix's operations in these areas in the context of its “Matrix Global” activities.

Matrix's customers include large and medium size enterprises in Israel, including commercial banks, loan and mortgage banks, telecommunications services providers, cellular operators, credit card companies, leasing companies, insurance companies, security agencies, hi-tech companies and startups, the Israeli Defense Forces and government ministries and public agencies and media and publishing entities. Approximately 60% of Matrix's customers in the software solutions and value-added services business segment in Israel have a business relationship with it for more than ten years and 25% of them have such a relationship for between five and ten years. 37% of Matrix's customers operate in the financial, banking and insurance sector, 22% in the industry, retail and hi-tech sector, 13% in the government sector, 12% in the defense sector, and the remaining 16% in other business sectors.

*Sapiens*

Sapiens International Corporation N.V. is a leading global provider of software solutions for the insurance industry, with a growing presence in the financial services sector. Sapiens' extensive expertise in the insurance industry is reflected in its innovative software suites, solutions and services for providers of Property & Casualty/General Insurance, or P&C, and Life, Pension & Annuity, or L&A, insurance. Sapiens' offerings enable its customers to effectively manage their core business functions, including policy administration, claims management and billing, and support them during their journey to becoming a digital insurer. Sapiens also supplies a complete offering for reinsurance providers and a decision management platform that enables its customers to quickly deploy business logic and comply with policies and regulations across their organizations. Sapiens' solutions, which possess modern, modular architecture and are digital-ready, empower customers to respond to evolving market needs and regulatory changes, while improving the efficiency of their core operations. These enhancements increase revenues and reduce costs.

2017 was a year of organizational growth for Sapiens, In February 2017, Sapiens announced its acquisition of StoneRiver. StoneRiver's product portfolio is comprised of claims, billing, rating, underwriting, illustrations, reinsurance and finance & compliance solutions for all major insurance business lines, across both P&C and L&A. StoneRiver's rich set of solutions complements Sapiens' existing offerings and has helped Sapiens accelerate its growth in the U.S. market specifically, and globally as well.

In late December 2017/early January 2018, Sapiens expanded its digital division's capabilities through the acquisition of KnowledgePrice.com (or KnowledgePrice), a technology specialist with expertise in digital insurance services and consulting. Privately-held KnowledgePrice employed about 50 digital insurance technology experts and is a provider of services to leading insurance providers in the UK and Europe. KnowledgePrice serves as a center for excellence for digital engagement services. Its experts joined Sapiens' Digital Division, which focuses on digital and business intelligence (BI) services and solutions, including portal and digital distribution offerings to customers worldwide. The expanded Digital Division will create innovative offerings and provide full support during customers' digital journeys.

In early 2018, Sapiens announced the acquisition of Adaptik, a North American P&C solution provider. This acquisition is expected to enable Sapiens to provide North American P&C carriers with an enhanced platform, which will improve Sapiens' competitive position and enable it to increase its market share in the North American insurance market. Going forward, Sapiens will offer an innovative P&C digital insurance platform. This platform will be formed by combining three powerful core components: Adaptik Policy, Adaptik Billing and StoneRiver Stream® Claims, accompanied by Sapiens' existing solutions for data and analytics, digital engagement and distribution, and cloud operation.



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Sapiens operates in a large market undergoing significant transformation. According to “IT Spending in Insurance: a Global Perspective, 2017” (a research report by Celent, a research and consulting firm, published on April 5, 2017), global IT spending by insurance companies is expected to grow from \$184.8 billion in 2017 to \$193.7 billion in 2018, and \$202 billion in 2019. IT spending on external software and IT services, which was predicted to total approximately \$83 billion in 2017, is expected to increase to \$89 billion by 2018, reflecting a 7.6% growth rate. It is thought that IT spending in the life vertical will grow from \$101.5 billion in 2017, to \$106.1 billion in 2018, reflecting a 4.6% growth rate. IT spending in the property and casualty vertical is expected to grow from \$83.8 billion in 2017 to \$87.6 billion in 2018, reflecting a 5.1% growth rate.

We believe that Sapiens’ current total addressable market for core insurance software solutions is approximately \$40 billion, which we expect to grow as a result of insurance carriers’ and financial institutions’ need to spend on modern software solutions from external providers to address the operational challenges presented by the inefficiency of their legacy core systems. Legacy systems possess technical and functional limitations that adversely impact carriers’ ability to swiftly launch new, innovative products that satisfy their customers’ changing needs and preferences. By slowing down carriers’ business and geographic expansion, legacy systems create operational inefficiencies that are translated into increased business risk and financial costs. They are also a barrier for the adoption of digital capabilities, due to their inability to communicate and interact with innovative digital solutions. Today’s insurance providers, accordingly, are looking for more than just the traditional “core” capabilities. They seek insurance platforms with a wider range of capabilities, including full digitalization.

Sapiens customers are operating in a dynamic and changing regulatory environment. Often their legacy systems simply do not support new regulatory requirements and put carriers at risk of non-compliance. We believe these challenges will accelerate the shift from spending on legacy systems to new vendor software solutions, and the shift from reliance on in-house development to external vendors.

There is also a strong trend of shifting attention to the end-customer experience and activities, with a focus on digital operations. Many insurers are currently unable to provide the type of quality digital experience that their customers are already enjoying across most other verticals and customer satisfaction is only one of the many recognized benefits of going digital. This can only be supported via increased usage of data for decision-making, risk analysis, customer evaluation and rating, which requires a streamlined data flow and easy access to information from multiple sources.

Sapiens’ competitors in the insurance software solutions market differ based on size, geography and lines of business. Some of Sapiens’ competitors offer a full suite, while others offer only one module; some operate in specific (domestic) geographies, while others operate on a global basis. In addition, delivery models vary, with some competitors keeping delivery in-house, using IT outsourcing (ITO) or business process outsourcing (BPO).

The insurance software solutions market is highly competitive and demanding. Maintaining a leading position is challenging, because it requires:

Development of new core insurance solutions, which necessitates a heavy R&D investment and an in-depth knowledge of complex insurance environments.

Technology innovation, to attract new customers, with rapid, technology-driven changes in the insurance business model and new propositions coming.

A global presence and the ability to support global insurance operations.

Ability to manage multiple partnerships, due to the changing landscape of the insurance ecosystem.

Satisfaction of regulatory requirements, which can be burdensome and require specific IT solutions.

Continued support and development of the solutions entails a critical mass of customers that support an ongoing R&D investment.

Know-how of insurance system requirements and an ability to bridge between new systems and legacy technologies.

Mission-critical operation that requires experience, domain expertise and proven delivery capabilities to ensure success.

The complex requirements of this market create a high barrier to entry for new players. As for existing players, these requirements have led to a marked increase in M&A transactions in the insurance software solutions sector, since small, local vendors have not been able to sustain growth without continuing to fund their R&D departments and follow the globalization trend of their customers.

We believe Sapiens is well-positioned to leverage its modern solutions, customer base and global presence to compete in this market and meet its challenges. In addition, Sapiens accumulated experience and expert teams allow it to provide a comprehensive response to the IT challenges of this market.

Sapiens' offering is comprised primarily of (1) **Sapiens' Software Solutions** – software solutions for the insurance industry with a growing presence in the financial services sector and (2) **Sapiens' Global Services** - including project delivery and implementation of its solutions.

Sapiens offers its insurance customers a range of packaged software solutions that are:

**Digital** – revealing their history and anticipating their future needs, while facilitating easy engagement across preferred interaction channels and multiple devices.

**Data-driven** – based on set of data analysis tools, from analytics to predictive, to provide a data-driven operation.

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**Highly automated** – by using various technologies, from decision to robotics, Sapiens improves efficiency and offers agile customer engagement.

**Comprehensive and function-rich** – supporting insurance standards, regulations and processes, by providing field-proven functionality and best practices.

**Customizable** – easily matches Sapiens' customers' specific business requirements. Sapiens' flexible architecture and configurable structure allows quick functionality augmentation that permits its platform to be used across different markets, unique business requirements and regulatory regimes, utilizing its knowledge and extensive insurance best practices.

**Open architecture and insurtech ecosystem** – provides easy integration to any external application under any technology, allowing streamlined connectivity to all satellite applications. This enhances the digital experience and omni-channel distribution, while maintaining total platform independence and system reliability. Easy interaction with various insurtech companies providing point-solutions that can be consumed by Sapiens' platforms is enabled.

**Component-based and scalable** – allowing customers to deploy platforms and solutions in a phased and modular approach, reducing risk and harm to the business, while supporting the growth plans and cost efficiency of the organization.

Sapiens' packaged software solutions enable:

**Rapid deployment of new insurance products**, via configurable software, which creates a competitive advantage in all of the insurance markets served by Sapiens.

**Improvement of operational efficiency and reduction of risk**, by providing full insurance process automation, with configurable workflows, audit and control, streamlined insurance practices and simple integration and maintenance.

**Reduction of overhead for IT maintenance** through easy-to-integrate solutions with flexible and modern architecture, resulting in lower costs for ongoing maintenance, modifications, additions and integration.

**Enhanced omni-channel distribution and focus on the customers**, through event-driven architecture, proactive client management approach, rapid access to all levels of data and a holistic view of clients and distributors.

**Cloud-first as a preferred deployment model** – with the flexibility to also provide an on-premises deployment approach.

**Support of digitalization** – digitalization holds massive potential for insurers and financial services institutions, if they manage to efficiently digitalize their operations, support omni-channel distribution and ensure that agents and customers are able to access real-time, accurate data at any time and from anywhere – including tablets and mobile devices.

Many large organizations, particularly in the financial services market, must comply with complex regulations. They operate in highly competitive markets that require quick responses. Business logic drives most of the financial services transactions and is the backbone of an organization's policies and strategies, and its ability to successfully operate. To operate efficiently, business owners must assume ownership of the business logic and possess the ability to define and modify it; standardize it; and reuse it across the organization. Today, business logic is defined by business owners and compliance officers, but IT departments translate the requirements into code. This process raises several key challenges: the result does not always accurately reflect the business requirements; the new requirements might conflict with, or override, previous requirements; and the entire process is not fully audited. These gaps often create an inefficient and risk-exposed organization.

### *Sapiens Solution Offerings*

Sapiens is a leading global provider of software solutions for the insurance industry. By enabling Sapiens' insurance and financial services customers to digitize their business and be more agile in the face of changing business environments, Sapiens helps them take advantage of powerful current trends – such as the Internet of Things, artificial intelligence, machine learning, customer engagement, chat bots, etc. – while simultaneously reducing IT costs

Sapiens' software portfolio is comprised of:

**Life, Pension and Annuities Platforms/Solutions** – comprehensive software platform and solutions for the management of a diversified range of products for life, pension and annuities. Sapiens' portfolio includes Sapiens ALIS, LifeSuite, Life Portraits, LifeApply, Sapiens INSIGHT and Sapiens Closed Books.

**Property and Casualty/General Insurance Platforms/Solutions** – comprehensive software platforms and solutions supporting a broad range of business lines including personal, commercial and specialty lines, and workers' compensation. Sapiens' portfolio includes Sapiens IDIT, Adaptik Policy, Adaptik Billing, Stream Claim, Sapiens Stingray, PowerSuite and CompSuite.

**Digital Engagement** – a digital insurance suite that provides an enablement platform that digitalizes insurance carriers' business and helps them transform. It is comprised of a set of integrative offerings, including: advanced analytics, a customer-centric portal for consumers and agents, an API layer for seamless integration with the insurtech ecosystem, accompanied by a strong cloud proposition.

Sapiens also offers consulting – process analysis, business process automation, project management, performance optimization, etc. – and services, such as information system development and various implementation methodologies. In sum, Sapiens provides an end-to-end, holistic and seamless digital experience for agents, customers and assorted insurance personnel.

**Reinsurance** – complete reinsurance software solutions for full financial control and auditing support. Sapiens portfolio includes Sapiens Reinsurance, Freedom Reinsurance System (FRS) and Universal Reinsurance System (URS®).

**Financial and Compliance** – financial and compliance solutions comprised of both annual statement and insurance accounting software. This software includes eFreedom® Annual Statement, PRO Financial General Ledger and Accounts Payable, PTE Financial applications, Insurance Financial reporting and Power2Play.

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**Decision Management** – Sapiens offers Sapiens DECISION, an enterprise-scale platform that enables institutions to centrally author, store and manage all organizational business logic. Organizations of all types – including banks, mortgage institutions and insurers – use it to track, verify and ensure that every decision is based on the most up-to-date rules and policies

**Technology-Based Solutions** – tailor-made solutions (unrelated to the insurance or financial services market) based on Sapiens' eMerge platform, which provides end-to-end, modular business solutions, ensuring rapid time to market.

*Sapiens Life, Pension and Annuity Solutions*

*Sapiens ALIS for Life, Pension and Annuities:* Sapiens ALIS is a comprehensive, single software platform for individual, employee and group business. It provides comprehensive support for the complete policy lifecycle of all life insurance products, from quotation and illustrations; to underwriting, billing and servicing; through claims management and exit processing.

Sapiens ALIS supports a wide range of insurance product lines across multiple territories, including:

- Individual and group life, investment and savings
- Individual and group protection, and risk products
- Individual and group pension
- Annuity products
- Hybrid products

Sapiens ALIS is a modular system that includes all the functional components necessary for insurers to manage their business. Insurance carriers can manage their entire core business on a single platform and integrate Sapiens ALIS with other systems for the completion of a specific activity, or domain.

Sapiens ALIS integrates all of the following functions into one solution:

- Sales, quotation and illustration
- New business
- Underwriting
- Policy servicing
- Billing, collection and payment management
- Claims processing

Agency and commission  
CRM and customer management  
Workflow and diary  
Compliance and calculation engine  
Insurance product manufacturing

Group insurance arrangements can be complex for insurers, with multiple and complex enrollment and eligibility rules, coverages, hierarchies and rules. Sapiens ALIS simplifies the complex management processes via an intuitive user experience, made simple with graphical, user-friendly, intuitive, business tools. This will create and empower self-sufficient business users to manage their business.

On top of the functional modules, Sapiens ALIS provides a set of digital capabilities to its customers, including an advanced analytics solution, a consumer and agent portal, personalized video capabilities and a customer engagement platform. These capabilities increase customer touch-points and generate actionable insights. Sapiens has partnered with Microsoft Azure to offer its Sapiens ALIS policy administration system and accompanying services over private and public clouds.

#### *LifeSuite*

LifeSuite is a web-based solution from StoneRiver, a Sapiens company, for automated underwriting and new business case management. LifeSuite streamlines underwriting case flow, speeding up and improving the entire new business process for carriers and their distribution channels. The solution delivers an impressive user experience. While it provides the most efficient and consistent solution, carrier staff can customize system features and underwriting rules to fit business needs and make informed underwriting decisions.

#### *Life Portraits*

Life Portraits is an offering from StoneRiver, a Sapiens company. It is a point-of-sale solution, providing access anywhere: from the field, home or office in an electronic environment. The life insurance illustrations software is one of the most widely used new business insurance illustrations systems for life, health and annuities (including term, whole life, universal life, variable and equity-indexed annuities) that can strengthen relationships and speed your sales process. Life Portraits' Home Office Maintenance tools enable the home office to edit plans for faster changes.

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*LifeApply*

LifeApply is web-based insurance application software from StoneRiver, a Sapiens company. It provides carriers with the choice of a standalone e-app system, or a more comprehensive solution that seamlessly integrates with the Life Portraits Illustrations and LifeSuite Automated Underwriting Systems. LifeApply combines the best features and functionality of previous offerings with a completely redesigned look-and-feel.

*Sapiens Closed Books*

Sapiens Closed Books is a solution for life and pension insurance companies that enables them to efficiently and more effectively administer policies and claims relating to their legacy portfolio and closed books business (products that are no longer open to new business, but must still be administered).

An industry leading and proven system, Sapiens Closed Books was designed to deliver solutions to legacy portfolio challenges, while significantly cutting the costs that are commonly associated with legacy platforms. Sapiens Closed Books provides a full, end-to-end legacy portfolio-focused system that is capable of dealing with missing data, old legislation and a wide range of product types.

The Sapiens Closed Books model ensures that benefits are realized in a controlled and low risk manner, via best practices and proven industry experience.

*Sapiens Property & Casualty/General Insurance Solutions*

*Sapiens IDIT*

Sapiens IDIT is a component-based software solution, addressing the specific needs of general insurance carriers for traditional insurance, direct insurance, bank assurance and brokers markets, primarily in EMEA and Asia-Pacific.

It supports a broad range of general, personal and commercial lines of business, including:

**Personal lines** – motor, personal property and homeowner, yacht, travel, medical insurance, liability, professional indemnity, etc.

**Commercial lines** – fleet insurance, marine, cargo, engineering, real estate and commercial building, small and large commercial risks, etc.

**Specialty lines** – agriculture, credit insurance, art insurance, etc.

Sapiens IDIT integrates multiple front office and back office processes, including insurance product design, the quote and buy process, policy administration, underwriting, call center, and remote users and partners, backed by fully secured internet-based capabilities.

By providing a full set of components, Sapiens IDIT supports insurance carriers' core operations lifecycle – from inception to renewal, and claims. This includes:

- Policy administration
- Claims management
- Billing and collection

Sapiens IDIT includes modular software components that can be customized to match specific insurance business requirements, while providing pre-configured functionality, including:

- Product factory
- Policy administration
- Billing and collection
- Claims management
- Customer Relationship Management (CRM)
- Intermediary management
- Workflow management
- Technical accounting
- Document management

On top of the functional modules, Sapiens IDIT provides a set of digital solutions and services to its customers, including an advanced analytics solution, a consumer and agent portal, personalized video capabilities and cloud offerings and services. These capabilities accelerate and automate responses, and reduce costs.



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### *Sapiens North American P&C Platform*

The recent acquisition of Adaptik will enable Sapiens to offer a truly modern, comprehensive property and casualty digital insurance platform to the North American region. This platform will be formed by combining three powerful core components: Adaptik Policy, Adaptik Billing and Stream® Claims, accompanied by Sapiens' existing solutions for data and analytics, digital engagement and distribution, and cloud operation.

**Adaptik Policy** is used by agents, underwriters and customers to quote, issue and administer policies, including integration with third-party systems.

Adaptik Billing is an enterprise billing platform from the leaders in configurable, scalable P&C insurance software solutions.

**Stream Claims** streamlines end-to-end claims processing for all personal and commercial lines, and prepares you to adapt to new business requirements with the underlying platform.

### *Sapiens Stingray*

Sapiens Stingray is a modular browser-based, property and casualty policy administration solution for Policy (quoting, rating, issuance), Billing, Claims and Reinsurance administration. Sapiens Stingray includes complete customer and agent portals as well as an imaging system. Additionally, Stingray has statistical bureau reporting, DMV, Credit Card, General Ledger, Comparative Raters, CLUE, Business Intelligence, reporting and many other third party insurance related interfaces.

### *PowerSuite and CompSuite*

PowerSuite and CompSuite handle comprehensive workers' compensation policy administration and claims needs.

CompSuite can deliver a turnkey solution in just 120 days. PowerSuite helps upper market carriers, administrators and state funds improve customer satisfaction, optimize operational efficiency and increase profitability.

### *Sapiens Reinsurance*

Sapiens Reinsurance is a comprehensive business and accounting solution designed to support the entire range of reinsurance contracts and activities, both ceded and assumed, for all lines of business. This software product provides

both insurers and reinsurers superior handling of all reinsurance activities and in-depth accounting functionality on a single platform. By incorporating fully automated functions adapted conveniently for its customers' business procedures, Sapiens Reinsurance provides flexible and full financial control of its customers' reinsurance processes, including full support for all auditing requirements and statutory compliance.

Sapiens Reinsurance offers end-to-end processing, including:

- Set-up and definition of the reinsurance program and comprehensive transaction processing for both cession and assumed contracts
- Automated production of all periodic statements, billings, bordereaux and accounts for all parties – reinsurers, brokers and ceding companies
- All-inclusive financial accounting module for current accounts management, P&L and balance sheet figures, and comprehensive support for general ledger accounts
- Complete audit trail and tracking capability of all activities, transactions and business processes

#### *Freedom Reinsurance System (FRS)*

Freedom Reinsurance System (FRS) is designed to meet the ceded reinsurance processing needs of property and casualty/general insurance, from calculating premium and claim cessions, to producing the data required for Schedule F.

#### *Universal Reinsurance System (URS)*

Universal Reinsurance System (URS) supports both ceded and assumed property and casualty reinsurance processing, and produces the data required for Schedule F. The ease of configuration, as well as the price point, makes URS a very attractive offering to the insurance market.

#### *Sapiens Digital Suite*

#### *Sapiens INTELLIGENCE*

Sapiens INTELLIGENCE is a modular, highly innovative business intelligence solution specifically designed for the insurance market. Based on the advanced technology of SAP's analytics platform, Sapiens INTELLIGENCE is an important component of the industry-leading Sapiens' portfolio and is comprised of two integral

elements: SmartStore and InfoMaster.

SmartStore is a centralized data hub for all insurance reporting and analytics. It gathers data from Sapiens' operational repository and intelligently transforms it into an insurance-domain set of business logical models, specifically designed for complex and in-depth analytics.

InfoMaster is Sapiens' set of analytical applications, offering a wide range of data visualization and analysis capabilities through reporting, dashboards and data discovery. Incorporating Sapiens' best practices and three decades of leading experience, Sapiens InfoMaster helps insurers achieve greater efficiency and begin reaping the benefits of analytics immediately.

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*Sapiens PORTAL*

The Sapiens PORTAL is pre-integrated with Sapiens core solutions. In addition to enjoying the myriad benefits provided by Sapiens' core, insurers can benefit from a portal that will transform their online sales, customer and agent experience. Insurers can choose a flexible deployment option that best fits their needs from the following approaches:

- Portal deployed over Sapiens' core policy admin. system
- Portal as a standalone digital solution, for a rapid launch of digitally-enabled business
- Portal over multiple systems, serving as a single point of engagement with the agents and customers

The Sapiens PORTAL was specifically designed to address insurers' needs, guided by Sapiens' three decades of industry experience. Two key segments are addressed by the Sapiens PORTAL:

The PORTAL for Consumers is a direct-to-consumer digital application providing a customer-centric view that enables customers to buy policies, view the status of their policies and accounts, issue claims and conduct many other transactions that save insurers time and reduce costs. Insurers can leverage their investment by offering customers a unique, real-time customer experience tailored to today's digital natives.

The PORTAL for Agents empowers the agent with full lifecycle enablement, including the ability to manage their pipeline, sell policies to their consumers and provide top-level customer service in real time. They can also obtain a holistic view of their business performance overall and benefit from full access to all their remunerations, payments, commission transactions and statements. Equipping agents with self-service tools that make their lives easier and help them better serve their customers will increase agent efficiency and satisfaction.

Sapiens' acquisition of KnowledgePrice meant the addition of 50 digital insurance technology experts, including innovative portal services. KnowledgePrice has extensive expertise and long-term experience with open technologies, agile methodologies and best practices surrounding digital insurance and the deployment of portals.

*Sapiens Business Decision Management Solutions*

*Sapiens DECISION*

Sapiens DECISION is a business decision management solution that consistently enforces business logic across all enterprise applications. Organizations use it to track, verify and ensure that every decision is based on the most up-to-date rules and policies. The solution is powered by The Decision Model®, a widely adopted decision management methodology, for which Sapiens owns a number of patents.

Organizations are undergoing a paradigm shift in the way they approach change, by replacing conventional policy and process management with a growing discipline called “decision management.” Decision management bridges the gap between business and IT, by enabling business users to rapidly frame requirements in formal business models that can be easily understood by all stakeholders. This ensures that the business logic is complete, internally consistent and accurate, and does not replicate existing logic.

Sapiens DECISION allows the reusability and governance of business logic across all business divisions and software applications, using any rules engine or business process management system, and integrating seamlessly with the BRM or BPM system that the organization has in place.

Some of the key benefits for organizations that use Sapiens DECISION are:

**Reduced risk**, by assessing the impact of any change (competitive, strategy, regulatory, etc.) and allowing users to simply and quickly design new and sustainable models to meet evolving business requirements.

**Limited costs and complexity**, by centralizing the development and dissemination of institutional business logic, which improves efficiency.

**Improved visibility and true governance**, by putting business users in full control of institutional business logic and enabling them to trace every policy and rule back to its motivation and documentation.

**Establishment of a “single point of truth,”** by providing business and IT users a centralized business logic repository.

Sapiens is currently focusing on the development and marketing of Sapiens DECISION in the financial services market in North America and Western Europe, and Sapiens is building best practices to be used primarily by mortgage, retail and investment banking where the scale and complexity of operations requires enterprise-grade technology that can easily be adapted as policies and business strategies rapidly evolve. Sapiens also intends to develop and market Sapiens DECISION for the insurance industry and leverage Sapiens’ industry knowledge and close relationships with Sapiens’ existing customers and partners.

### *Technology-Based Solutions*

#### *Sapiens eMerge*

Sapiens eMerge is a rules-based, model-driven architecture that enables the creation of tailor-made, mission-critical core enterprise applications with little or no coding. Sapiens' technology is intended to allow customers to meet complex and unique requirements using a robust development platform. For example, Sapiens performs proxy porting for Sapiens' customers in an efficient, cost effective manner with Sapiens eMerge.

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*Sapiens' Global Services*

As noted previously, the Sapiens Service Suite is comprised of three main pillars: **program delivery**, **business services** and **managed services**, as well as Sapiens' various methodologies (which are applied across the first three pillars).

Program delivery includes:

- Project and program management
- Core development and implementation
- Integration
- Deployment
- Testing

Business transformation services are comprised of:

- Business transformation – planning and strategy, business process evaluation, training and change management
- Digital transformation – business model and processes transformation and data management consolidation, data migration
- UAT testing
- System integration

Managed services include:

- Hosting services
- Application and system management
- Ongoing production support

Sapiens' services modernize and automate processes for insurance providers and financial institutions around the globe, helping to create greater organizational efficiencies, reduce costs and provide a better end-user experience. Built on a solid foundation of insurance domain expertise, proven technology and a heritage of successful deployments, Sapiens assists clients in identifying and eliminating IT barriers to achieve business objectives.

Benefits include:

**Project Delivery Experience.** More than 30 years of field-proven project delivery of core system solutions, based on best practices and accumulated experience.

**Customer Integration:** Sapiens helps its customers deploy modern solutions, while expertly integrating these solutions with their legacy environments that must be supported.

**Global Presence:** Insurance and technology domain experts are available worldwide to provide professional services.

Sapiens' implementation teams assist customers in building implementation plans, integrating Sapiens software solutions with their existing systems, and deploying specific requirements unique to each customer and installation. Sapiens' business services include API integration management and business intelligence (BI) and advanced analytics consolidation. Sapiens' managed services offer ongoing production support and a 24/7 help desk.

Sapiens' service teams possess strong technology skills and industry expertise. The level of service and business understanding they provide contributes to the long-term success of Sapiens' customers. This helps us develop strategic relationships with Sapiens' customers, enhances information exchange and deepens Sapiens' understanding of the needs of companies within the industry.

Through Sapiens' service teams, Sapiens provides a wide scope of services and consultancy around Sapiens' core solutions, both in the initial project implementation stage, as well as ongoing additional services. Many of Sapiens' customers also use Sapiens' services and expertise to assist them with various aspects of daily maintenance, ongoing system administration and the addition of new solution enhancements.

Such services include:

- Adding new lines of business and functional coverage to existing solutions running in production
- Ongoing support services for managing and administering the solutions
- Creating new functionalities per specific requirements of Sapiens' customers
- Assisting with compliance for new regulations and legal requirements

In addition, most of Sapiens' clients elect to enter into an ongoing maintenance and support contract with us. The terms of such a contract are usually twelve months and are renewed every year. A maintenance contract entitles the customer to technology upgrades (when made generally available) and technical support. Sapiens also offers introductory and advanced classes and training programs available at Sapiens' offices and customer sites.



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Sapiens partners with several system integration and consulting firms to achieve scalable, cost-effective implementations for Sapiens' customers. Sapiens has developed an efficient, repeatable methodology that is closely aligned with the unique capabilities of Sapiens' solutions.

### ***Sales and Marketing***

Sapiens' main sales channel is direct sales, with a small portion of partner sales. Sapiens' sales team is dispersed across Sapiens' regional offices in North America, the United Kingdom, Belgium, France, Israel, Australia, India, Poland and the Nordics. The direct sales force is geared to large organizations within the insurance and financial services industry.

As part of Sapiens' sales process, Sapiens typically sells a package that includes license, implementation, customization and integration services, and training services. All of Sapiens' clients for whom Sapiens has deployed Sapiens' solutions elect to enter into an ongoing maintenance and support contract with Sapiens. Sapiens aims to expand its distribution model to include more channel partners and system integrators, but it intends to maintain the direct sales model as its prime distribution channel.

In 2017, Sapiens continued to significantly invest in Sapiens' target regions – North America, Europe, Asia Pacific and South Africa – and its sales, presales, domain experts and marketing personnel. Sapiens anticipates that its sales team will leverage their proximity to customers and prospective clients to drive more business, and offer Sapiens' services across Sapiens' target markets.

Sapiens' account managers were focused on building ongoing relationships with existing customers during the past year, to maintain a high level of customer satisfaction and identify up-selling opportunities within these organizations. Sapiens believes that a high level of post-contract customer support is important to Sapiens' continued success.

Sapiens attends major industry trade shows to improve its visibility and its market recognition. Additionally, it hosts client conferences– such as its annual Sapiens Client Conference, which took place in Gouvieux, France in October 2015, in North Atlanta, U.S. in September 2016 and in Lisbon, Portugal in October 2017. In addition, StoneRiver hosts an annual customer summit in the U.S., which took place in Amelia Island, FL in 2015 and Tucson, AZ in 2016– that are intended to strengthen Sapiens' relationships with its existing customer base. Sapiens continues investing in its web presence and digital marketing activities to generate leads and enhance its brand recognition. Sapiens maintains a blog channel (“Sapiens Spotlight”). It also invests in its working relationships and advisory services within the global industry-analyst community.

Sapiens works together with standards providers – such as ACORD and MISMO– to further enrich Sapiens’ offerings and provide its customers with comprehensive and innovative solutions that address the entire breadth of their business needs.

Geographically, Sapiens derived 40.7%, 44.9%, 6.7% and 7.7% of its revenue from North America, Europe, Asia-Pacific and South Africa regions, respectively, in the year ended December 31, 2017, and 34.4%, 49.6%, 14.0%, and 2.0%, from those regions, respectively, in the year ended December 31, 2016.

### *Magic Software*

Magic Software Enterprises Ltd. is a global provider of: (i) proprietary application development and business process integration platforms; (ii) selected packaged vertical software solutions; as well as (iii) a vendor of software services and IT outsourcing software services. Magic Software’s technology is used by customers to develop, deploy and integrate on-premise, mobile and cloud-based business applications quickly and cost effectively. In addition, its technology enables enterprises to accelerate the process of delivering business solutions that meet current and future needs and allow customers to dramatically improve their business performance and return on investment. With respect to software services and IT outsourcing services, Magic Software offers a vast portfolio of professional services in the areas of infrastructure design and delivery, application development, technology consulting planning and implementation services, support services, cloud computing for deployment of highly available and massively-scalable applications and API’s and supplemental outsourcing services. In addition, Magic Software offers a variety of proprietary comprehensive packaged software solutions through certain of our subsidiaries for (a) revenue management and monetization solutions in mobile, wireline, broadband and mobile virtual network operator/enabler, or MVNO/E (“Leap”); (b) enterprise management systems for both hubs and traditional air cargo ground handling operations from physical handling and cargo documentation through customs, seamless electronic data interchange, or EDI communications, dangerous goods, special handling, track and trace, security to billing (“Hermes”); (iii) enterprise human capital management, or HCM, solutions, to facilitate the collection, analysis and interpretation of quality data about people, their jobs and their performance, to enhance HCM decision making (“HR Pulse”); (iv) comprehensive systems for managing broadcast channels in the area of TV broadcast management through cloud-based on-demand service or on-premise solutions; and (v) enterprise-wide and fully integrated medical platform (“Clicks”), specializing in the design and management of patient-file oriented software solutions for managed care and large-scale health care providers. This platform allows providers to securely access an individual’s electronic health record at the point of care, and it organizes and proactively delivers information with potentially real time feedback to meet the specific needs of physicians, nurses, laboratory technicians, pharmacists, front- and back-office professionals and consumers.

Based on Magic Software’s technological capabilities, its software solutions enable customers to respond to rapidly-evolving market needs and regulatory changes, while improving the efficiency of their core operations. Magic Software have approximately 2,000 employees and operate through a network of over 3,000 independent software vendors, or ISVs, who we refer to as Magic Software Providers, or MSPs, and hundreds of system integrators, distributors, resellers, and consulting and OEM partners. Thousands of enterprises in approximately 50 countries use Magic Software’s products and services.



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Magic Software's software technology platforms consist of:

**Magic xpa** – a proprietary application platform for developing and deploying business applications.

**AppBuilder** – a proprietary application platform for building, deploying, and maintaining high-end, mainframe-grade business applications.

**Magic xpi** – a proprietary platform for application integration.

**Magic xpc** – hybrid integration platform as a service (iPaaS).

These software solutions enable Magic Software's customers to improve their business performance and return on investment by supporting cost-effective and rapid delivery integration of business applications, systems and databases. Using Magic Software's products, enterprises and MSPs can achieve fast time-to-market by rapidly building integrated solutions and deploy them in multiple environments while leveraging existing IT resources. In addition, Magic Software's software solutions are scalable and platform-agnostic, enabling its customers to build software applications by specifying their business logic requirements in a high-level language rather than in computer code, and to benefit from seamless platform upgrades and cross-platform functionality without the need to re-write their applications. Magic Software's platforms also support the development of mobile applications that can be deployed on a variety of smartphones and tablets, and in a cloud environment. In addition, Magic Software continuously evolves its platforms to include the latest technologies to meet the demands of its customers and the markets in which they operate.

Magic Software's software solutions enable enterprises to accelerate the planning, development, deployment and integration of on-premise, mobile and cloud business applications that can be rapidly customized to meet current and future needs. Its software solutions and complementary professional services empower customers to dramatically improve their business performance and return on investment by enabling the cost-effective and rapid delivery, integration and mobilization of business applications, systems and databases. Its technology and solutions are especially in demand when time-to-market considerations are critical, budgets are tight, and integration is required with multiple platforms or applications, databases or existing systems and business processes, as well as for RIA and SaaS applications. Magic Software's technology also provides the option to deploy our software capabilities in the cloud, hosted in a web services cloud computing environment. We believe these capabilities provide organizations with a faster deployment path and lower total cost of ownership. Magic Software's technology also allows developers to stage multiple applications before going live in production.

Development communities are facing high complexity, cost and extended pay-back periods in order to deliver cloud, RIAs, mobile and SaaS applications. Magic xpa, AppBuilder, Magic xpi and Magic xpc provide MSPs with the ability to rapidly build integrated applications in a more productive manner, deploy them in multiple modes and architectures as needed, lower IT maintenance costs and speed time-to-market. Magic Software's solutions are comprehensive and industry proven. These technologies can be applied to the entire software development market, from the implementation of micro-vertical solutions, through tactical application modernization and process automation solutions, to enterprise spanning service-oriented architecture, or SOA, migrations and composite applications initiatives. Unlike most competing platforms, Magic Software offer a coherent and unified toolset based on the same proven metadata driven and rules-based declarative technology. Its low-code, metadata platforms consist of

pre-compiled and pre-written technical and administrative functions, which are essentially ready-made business application coding that enables developers to bypass the intensive technical code-writing stage of application development and integration, concentrate on building the correct logic for their apps and move quickly and efficiently to deployment. Through the use of metadata-driven platforms such as Magic xpa, AppBuilder, Magic xpi and Magic xpc, software vendors and enterprise customers can experience unprecedented cost savings through fast and easy implementation and reduced project risk.

Magic Software's software technology solutions include application platforms for developing and deploying specialized and high-end large-scale business applications and integration platforms that allow the integration and interoperability of diverse solutions, applications and systems in a quick and efficient manner. These solutions enable its customers to improve their business performance and return on investment by supporting the affordable and rapid delivery and integration of business applications, systems and databases. Using Magic Software's software solutions, enterprises and ISVs can accelerate time-to-market by rapidly building integrated solutions, deploying them in multiple environments while leveraging existing IT resources. In addition, its solutions are scalable and platform-agnostic, enabling Magic Software's customers to build solutions by specifying their business logic requirements in a commonly used language rather than in computer code, and to benefit from seamless platform upgrades and cross-platform functionality without the need to re-write applications. Magic Software's technology also enables future-proof protection and supports current market trends such as the development of mobile applications that can be deployed on a variety of smartphones and tablets, and cloud environments.

In addition, Magic Software also offers a variety of vertical-targeted products that are focused on the needs and requirements of specific growing markets. Certain of these products were developed utilizing Magic Software's application development platform.

Magic Software's vertical software solutions include:

*Clicks*, offered by Magic Software's Roshtov subsidiary: The Clicks is a proprietary comprehensive core software solution for medical record information management systems, used in the design and management of patient-file for managed care and large-scale healthcare providers. The platform is connected to each provider clinical, administrative and financial data base system, residing at the provider's central computer, and allows immediate analysis of complex data with potentially real-time feedback to meet the specific needs of physicians, nurses, laboratory technicians, pharmacists, front- and back-office professionals and consumers;

*Leap*<sup>TM</sup>, offered by Magic Software's Formula Telecom Solutions subsidiary: The Leap<sup>TM</sup> is a proprietary comprehensive core software solution for BSS, including convergent charging, billing, customer management, policy control, mobile money and payment software solutions for the telecommunications, content, Machine to Machine/Internet of Things or M2M/IoT, payment and other industries;

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*Hermes Solution*, offered by Magic Software's Hermes Logistics Technologies Ltd. subsidiary: The Hermes Air Cargo Management System is a proprietary, state-of-the-art, packaged software solution for managing air cargo ground handling. Hermes software covers all aspects of cargo handling, from physical handling and cargo documentation through customs, seamless EDI communications, dangerous goods and special handling, tracking and tracing, security and billing. Customers benefit through faster processing and more accurate billing, reporting and ultimately enhanced revenue. The Hermes solution is delivered on a licensed or fully hosted basis. Hermes recently supplemented its offering with the Hermes Business Intelligence (HBI) solution, adding unprecedented data analysis capabilities and management-decision support tools;

*HR Pulse*, offered by Magic Software's Pilat NAI, Inc. and Pilat Europe Ltd. subsidiaries: The Pulse (now in its 10th release) is a proprietary tool for the creation of customizable HCM solutions quickly and affordably. It has been used by Pilat to create products, such as Pilat Frist and Pilat Professional, that provide "out of the box" SaaS solutions for organizations that implement Continuous Performance and/or Talent Management, and

*MBS Solution*, offered by Magic Software's Complete Business Solutions Ltd. subsidiary: MBS Solution is a proprietary comprehensive core system for managing TV broadcast channels.

In addition, Magic Software provides a broad range of advanced IT software professional services and IT outsourcing services in the areas of infrastructure design and delivery, end-to-end application development, technology planning and implementation services, cloud computing for deployment of highly available and massively-scalable applications and APIs, as well as supplemental IT outsourcing services to a wide variety of companies, including Fortune 1000 companies. The technical personnel Magic Software provides generally supplement in-house capabilities of its customers. Magic Software has extensive and proven experience with virtually all types of telecom infrastructure technologies in wireless and wire-line as well as in the areas of infrastructure design and delivery, application development, project management, technology planning and implementation services.

## *Magic Software Platforms*

*Magic xpa Application Platform*, Magic Software's metadata driven application platform, provides a simple, code-free and cost-effective development and deployment environment that lets organizations and MSPs quickly create user-friendly, enterprise-grade, multi-channel mobile and desktop business apps that employ the latest advanced functionalities and technologies. The Magic xpa Application Platform, formerly named uniPaaS, was first released in 2008 and is an evolution of the original eDeveloper product a graphical, rules-based and event-driven framework that offered a pre-compiled engine for database business tasks and a wide variety of generic runtime services and functions which was released in 2001.

Magic Software has continually enhanced its Magic xpa application platform to respond to major market trends such as the growing demand for cloud based offerings including Rich Internet Applications (RIA), mobile applications and SaaS. Accordingly, Magic Software has added new functionalities and extensions to its application platform, with the objective of enabling the development of RIA, SaaS, mobile and cloud enabled applications. SaaS is a business and technical model for delivering software applications, similar to a phone or cable TV model, in which the software applications are installed and hosted in dedicated data centers and users subscribe to these centers and use the

applications over an internet connection. This model requires the ability to deliver RIA. Magic xpa is a comprehensive RIA platform. It uses a single development paradigm that handles all ends of the application development and deployment process including client and server partitioning and the inter-communicating layers.

Magic xpa offers customers the power to choose how they deploy their applications, whether full client or web; on-premise or on-demand; in the cloud or behind the corporate firewall; software or mobile or SaaS; global or local. The Magic xpa Application Platform complies with event driven and service oriented architectural principles. By offering technology transparency, this product allows customers to focus on their business requirements rather than technological means. The Magic xpa single development paradigm significantly reduces the time and costs associated with the development and deployment of cloud-based applications, including RIAs, mobile and SaaS. In addition, application owners can leverage their initial investment when moving from full client mode to cloud mode, and modify these choices as the situation requires. Enterprises can use cloud based Magic xpa applications in a SaaS model and still maintain their databases in the privacy of their own data centers. It also supports most hardware and operating system environments such as Windows, Unix, Linux and AS/400, as well as multiple databases and is interoperable with .NET and Java technologies.

Magic xpa can be applied to the full range of software development, from the implementation of micro-vertical solutions, through tactical application modernization and process automation solutions, to enterprise spanning SOA migrations and composite applications initiatives. Unlike most competing platforms, Magic Software offers a coherent and unified toolset based on the same proven metadata driven and rules based declarative technology, resulting in increased cost savings through fast and easy implementation and reduced project risk.

In March 2016, Magic Software released Magic xpa version 3.1 of its Magic xpa Application Platform, incorporating feedback from the field to bring Magic Software's customers additional value in terms of simplifying app modernization, accelerating enterprise mobile app development and maximizing end user adoption. This release included end user customization capabilities, an enhanced UI, and a new Upgrade Manager.

In November 2016, Magic Software released Magic xpa version 3.2. The Magic xpa 3.2 release included new Windows 10 mobile client and iOS 10 support for expanded mobile options; UX and productivity improvements; a Web Services Gateway providing support for n-tiered application architecture; a new Compare and Merge Tool; improvements to the Upgrade Manager utility and additional backward compatibility features.

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During 2016, Magic xpa was listed in three of Gartner's Market Guide Reports for: Rapid Mobile App Development Tools; Application Platforms and High Productivity Development Tools. In addition, Magic xpa was listed in Forrester's Vendor Landscape, "The Fractured Fertile Terrain of Low Code Application Platforms."

In November 2017, Magic Software announced the release date of its newest cutting-edge Web development tool, a full Web client, for Magic xpa Application Platform. By entering the Composite Web Application market, Magic Software addressed its customers' and partners' need for Single Web Application development, providing its loyal customers with access to the newest and most advanced programming frameworks, enabling them to leverage these new capabilities to quickly and efficiently develop high-quality applications. The new HTML5 Web client, based on Google's popular open source Angular framework, will become commercially available in June 2018, providing Magic Software's developer community with advanced capabilities to develop highly-responsive and device-agnostic Web applications. In addition, Magic Software plans to enable Web services to be consumed and provided via Apache Axis2, which will provide its customers a modern state-of-the-art Web services framework. In addition, Magic Software further modernized its Integrated Development Environment (IDE) by moving toward a full-fledged Visual Studio-based studio, offering its users an even more intuitive and user-friendly experience.

Magic Software's new enhancements will also include a 64-bit based engine, support for cloud databases and easy usage of JSON files. The product will also provide a more seamless and easier integration with Java, similar to the already existing integration with .NET, making the Magic xpa platform even more robust.

During 2017, Magic xpa was listed in Gartner's Market Guide for Application Platforms report. In addition, Magic xpa was listed in the Forrester Wave™ for Mobile Low-Code Development Platforms. During 2016, Magic xpa was listed in three of Gartner's Market Guide Reports for: Rapid Mobile App Development Tools; Application Platforms and High Productivity Development Tools. In addition, Magic xpa was listed in Forrester's Vendor Landscape, "The Fractured Fertile Terrain of Low Code Application Platforms."

***AppBuilder Application Platform*** is a proprietary development environment used for managing, maintaining and reusing complicated applications needed by large businesses. It provides the infrastructure for enterprises worldwide, across several industries, with applications running millions of transactions daily on legacy systems. Enterprises using AppBuilder can build, deploy and maintain large-scale custom-built business applications for years without being dependent on any particular technology. The AppBuilder deployment environments include IBM mainframe, Unix, Linux and Windows. AppBuilder is intended to increase productivity and agility in the creation and deployment of enterprise class computing.

AppBuilder follows the 4GL development paradigm to help enterprises focus on the business needs and definition and overlook technical hurdles. AppBuilder developers define the business roles and prior to deployment the code is generated from the development environment to the required run time environment. Several large MSPs have utilized



AppBuilder to build state-of-the-art applications that are deployed through many large customers.

AppBuilder implements a model driven architecture approach to application development. It provides the ability to design an application at the business modeling level and generate forward to an application. AppBuilder has a platform-independent, business-rules language that enables generation to multiple platforms. It is possible to generate the client part of an application as Java and the server part as COBOL. As businesses change, the server part can be generated as Java without changing the application logic. Only a simple configuration option needs to be changed.

In 2016, AppBuilder launched the next generation of its group repository tool, the Versioned Group Repository (VGRE). AppBuilder VGRE is aimed at mid-size development projects, runs on Microsoft Windows Server platform and enables AppBuilder enterprise customers to parallel support for multiple application releases, called branches, and access to the full history of individual objects. This includes comparisons as well as version manipulation features like merge. VGRE is an extension to the existing repository portfolio with full backward compatibility including well known features like impact analysis, security, upload/download, migrations, rebuilds, remote preparation and others.

***Magic xpi Integration Platform*** is a graphical, wizard-based code-free solution delivering fast and simple integration and orchestration of business processes and applications. Magic xpi allows businesses to more easily view, access, and leverage their mission-critical information, delivering true enterprise application integration, or EAI, business process management, or BPM, and SOA infrastructure. Increasing the usability and life span of existing legacy and other IT systems, Magic xpi allows fast EAI, development and customization of diverse applications, systems and databases, assuring rapid return on invested capital and time-to-market, increased profitability and customer satisfaction.

Magic xpi allows the integration and interoperability of diverse solutions, including legacy applications, in a quick and efficient manner. In January 2010, Magic Software released Magic xpi 3.2 and since then it has continued to develop the Magic xpi channel. Magic Software has entered into agreements with additional system integrators, consultancies and service providers, who acquired Magic xpi skills and offer Magic xpi licenses and related services to their customers. Magic Software also offers special editions of Magic xpi with optimized and certified connectors for specific enterprise application vendor ecosystems, such as SAP, Oracle JD Edwards, Microsoft SharePoint and Salesforce.com. These special editions contain specific features and pricing tailored for these market sectors.

In 2015, Magic xpi was awarded the Integrate 2015 award for Top Innovator for Integration Middleware.

In June 2016, Magic Software released version 4.5 of its Magic xpi Integration Platform, designed to make digital transformation and IoT projects easier. Magic xpi 4.5 included a fresh Microsoft® Visual Studio®-based UI with enhanced productivity features, expanded out-of-the-box connectivity including an MQTT adapter, and a Connector Builder that lets users quickly build their own full-featured reusable connectors. Magic xpi 4.5 had expanded connectivity capabilities and robust in-memory computing architecture to help the execution of business-critical digital transformation and IOT projects.



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In March 2017, Magic Software released Magic xpi version 4.6 with enhancements including a New ServiceMax connector for quick and easy connectivity with ServiceMax, a New OData client connector for easy connectivity to ecosystems exposing services via this open standardized protocol, a SAP Business One connector verified for SAP Business One HANA and support for additional services and new and improved functionalities to Magic Software's existing MS Dynamics CRM connector:

In August 2017, Magic Software's Magic xpi integration platform was recognized by the analyst firm Ovum as a well-positioned integration platform that is a good option for small-and medium-size enterprises. In addition, Magic xpi was listed in 2017 in 10 Gartner reports including three Market Guides for Application Integration Platforms, HIP-Enabling Technologies and IoT Integration.

In December March 20172018, Magic Software released Magic xpi version 4.7 with a new OData Provider connector, Active Directory Federation Services (ADFS) support for the SharePoint Online (MOSS) connector. This version provides the ability to write new connectors based on Magic xpa Application Platform's runtime technology and multiple features to improve programming productivity, such as visual indicators of data flow status and an enhanced monitor to provide an even more accurate bird's eye view of all running projects.

Magic xpc Integration Platform

In November 2017, Magic Software announced the expansion of its integration offering with the launch of Magic xpc, a hybrid integration platform as a service (IPaaS), which enables customers to accelerate digital transformation on the cloud, on-premises or on both.

Magic xpc is powered by its out-of-the-box integration connectors for mainstream business applications, databases, protocols and tools for building custom integrations. Magic Software's iPaaS platform was built using node.JS and docker technology. Magic xpc users can monitor their integration flows and create and manage alerts from a single interface. Built on top of open-source components with no cloud vendor lock-in, Magic xpc is available on both public and private cloud platforms including, Amazon Web Services, Azure, and Google Cloud.

**Magic Software - vertical-software solutions**

**Clicks.** Magic Software markets Clicks™ through its Roshtov subsidiary, which has three decades of proven experience based on its proprietary comprehensive core software solution for medical record information management systems,

used in the design and management of patient-file for managed care and large-scale healthcare providers. The platform, which can be tailor-made to the specific needs of the healthcare providers is connected to the clinical, administrative and financial data base system, residing at the provider's central computer, and allows immediate analysis of complex data with potentially real-time feedback to meet the specific needs of physicians, nurses, laboratory technicians, pharmacists, front- and back-office professionals and consumers.

All of Magic Software's clients that buy or subscribe to its Clicks software solutions also enter into software support agreements with us for maintenance and support of their medical record management systems. In addition to immediate software support in the event of problems, these agreements allow clients to access new releases covered by support agreements. In addition, each client has 12-hour access, six days a week (6 hours on Friday) to the applicable call-center support teams.

Roshtov's employs a team of 30 research and development specialists that together with its clients create a future where the health care system works to improve the well-being of individuals and communities. Roshtov's proven ability to innovate has led to what we believe to be an industry leading architectures and a breadth and depth of solutions and services.

There are four healthcare service providers in Israel, two (Maccabi Healthcare Services and Clalit) of which are the largest healthcare providers in Israel and are our customers since the early 1990's, and which account for 77% of the Israeli market.

**Leap.** Magic Software markets Leap™ through its FTS subsidiary, which has over 20 years of BSS experience, based on dozens of projects delivered to customers worldwide. Magic Software implements revenue management and monetization solutions in mobile, wireline, broadband, MVNO/E, payments, e-commerce, M2M / Internet of Things, mobile money, cable, cloud and content markets under the brand name of Leap™.

FTS works with telecommunications, content and payment service providers globally to help them manage complex transactions and relationships with greater flexibility and independence. Analyzing transactions from a business standpoint, FTS offers end-to-end and add-on telecom billing, charging, policy control and payments solutions to customers worldwide, and services both growing and major providers.

FTS targets mid to lower level tier service providers, supporting their BSS needs with end-to-end, turnkey billing and other BSS projects. In addition, FTS offers upper-tiers of service providers with BSS and monetization solutions for specific needs, including policy control and charging solutions, M2M billing, billing for content services, MVNE/MVNO billing, mobile money software solutions, payment and mobile financial services solutions and others.

FTS's solutions are delivered via cloud, on-premises or in a fully managed-services mode and are backed by FTS's Israel and Bulgaria-based experienced professional services support team.



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**HR Pulse.** HR Pulse, which is now in its 10<sup>th</sup> release, is a proprietary platform that creates and customizes software applications for HCM, with the goal to combine technology with effective processes, to facilitate the collection, analysis and interpretation of quality data about people, their jobs and their performance, to enhance HCM decision making, resulting in increased organizational efficiency and effectiveness. HR Pulse addresses four distinct functional areas with the ability to also work as one consolidated system:

- Performance and goal management
- Development management
- Talent management and succession planning
- Compensation and merit review

Magic Software's offering includes customizable "out-of-the-box" HCM SaaS Solutions, such as Pilat Frist and Pilat Professional, which provide a menu of templates that can be used to affordably and expeditiously create customized HCM solutions for companies. The HR Pulse platform promotes the building and implementation of solutions that address broader business challenges as well. Such offerings include 360 degree feedback, employee surveys, leadership and management development, coaching and job evaluation.

**Hermes.** Hermes has been developing and evolving cargo management systems for the air cargo industry since 2002. Hermes Air Cargo Management System is a proprietary, state-of-the-art, packaged software solution for managing air cargo ground handling. Hermes software covers all aspects of cargo handling, from physical handling and cargo documentation through customs, seamless EDI communications, dangerous goods and special handling, tracking and tracing, security and billing. Over the last 10 years Hermes systems have been implemented in over 70 terminals on five continents, providing efficient and accurate handling of more than 5 million tons of freight annually. Customers benefit through faster processing and more accurate billing, reporting and ultimately enhanced revenue. Customers include independent ground handlers, airlines with a cargo arm, hubs belonging to an individual airline or those catering to a number of airlines transiting cargo to additional destinations. The Hermes solution is delivered on a licensed or fully hosted basis. Hermes recently supplemented its offering with the Hermes Business Intelligence (HBI) solution, adding unprecedented data analysis capabilities and management-decision support tools.

**Product-Related Services**

**Professional Services.** Magic Software offers fee-based consulting services in connection with installation assurance, application audits and performance enhancement, application migration and application prototyping and design. Consulting services are aimed at generating both additional revenues and ensuring successful implementation of Magic xpa, Appbuilder, Magic xpi and Magic xpc projects through knowledge transfer. As part of management efforts to focus on license sales, Magic Software's goal is to provide such activities as a complementary service to its customers and partners. We believe that the availability of effective consulting services is an important factor in achieving widespread market acceptance.

Services are offered as separately purchased add-on packages or as part of an overall software development and deployment technology framework. Over the last several years, Magic Software has built upon its established global presence to form business alliances with MSPs that use Magic Software technology to develop solutions for their customers, and with distributors to deliver successful solutions in focused market sectors.

*Maintenance.* Magic Software offers its customers annual maintenance contracts providing for unspecified upgrades and new versions and enhancements for its products on a when-and-if-available basis for an annual fee.

*Customer Support.* Magic Software offers an online support system for the MSPs, providing them with the ability to instantaneously enter, confirm and track support requests via the Internet. This system supports MSPs and end-users worldwide. As part of this online support, Magic Software offers a Support Knowledge Base tool providing the full range of *technical* notes and other documentation including technical papers, product information, most answers to most common customer queries and known issues that have already been reported.

*Training.* Magic Software conducts formal and organized training on its development tools. Magic Software develops courses, pertaining to its principal products, Magic xpa and Magic xpi, and provides trainer and student guidebooks. Course materials are available both in traditional, classroom courses and as web-based training modules, which can be downloaded and studied at a student's own pace and location. The courses and course materials are designed to accelerate the learning process, using an intensive technical curriculum in an atmosphere conducive to productive training.

### **Magic Software - IT Services**

Magic Software's IT services offerings consist of a variety of professional services that can be grouped into integration and other IT services. Magic Software's integration services include:

**Infrastructure analysis, design and delivery** - management of complex, tailor-made projects and telecom infrastructure projects in wireless and wire-line as well as IT consulting services, mainly for the defense and public sectors.

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**Technology consulting and implementation services** - planning and execution of end-to-end, large-scale, complex solutions in networking, cyber security, command & control and high performance transaction systems.

**Application development** – Magic Software specializes in end-to-end projects that feature an array of technologies, from development and implementation of concepts for startups to overall responsibility for the development of systems for large enterprises. Magic Software’s development services include development of on-premise, mobile and cloud applications as well as Embedded and real time software development.

With more than 1,400 experts and hundreds of projects gone live in a variety of advanced technologies in the U.S., Europe and Israel, Magic Software has developed significant expertise and accumulated vast experience in integration projects. Such projects are typically more complex and require a high level of industry knowledge and highly skilled professionals. Magic Software’s integration expertise, as well as its global reach allows it to deliver comprehensive, value added services to its customers. Its IT services customers include major global telecoms, OEMs and engineering, furnish and installation service companies.

**Strategic Consulting and Outsourcing Services**

Magic Software provides a broad range of IT consulting services in the areas of infrastructure design and delivery, application development, technology planning and implementation services, cloud computing, as well as supplemental outsourcing services. Its wholly-owned subsidiaries, Fusion Solutions LLC, Xsell Resources Inc., Allstates Consulting Services LLC, Futurewave Systems, INC., the Comm-IT Group, Infinigy Solutions LLC., Comblack Ltd. and Shavit Software (2009) Ltd. provide advanced IT consulting and outsourcing services to a wide variety of companies including Fortune 1000 companies. Magic Software’s technical personnel generally supplement the in-house capabilities of its customers. Its approach is to make available a broad range of technical personnel to meet the requirements of its customers rather than focusing on specific specialized areas. Magic Software has extensive knowledge of and has worked with virtually all types of wireless and wireline telecom infrastructure technologies as well as in the areas of infrastructure design and delivery, application development, project management, technology planning and implementation services. Its consulting partners come from a wide range of industries, including finance, insurance, government, health care, logistics, manufacturing, media, retail and telecommunications. With an experienced team of recruiters in the telecom and IT areas and with a substantial and a growing database of telecom talent, Magic Software can rapidly respond to a wide range of requirements with well qualified candidates. Its customer list includes major global telecoms, OEMs and engineering, furnish and installation service companies. Magic Software has built long-term relationships with its customers by providing expert telecom talent. Magic Software provides individual consultants for contract and contract-to-hire assignments as well as candidates for full time placement. In addition, Magic Software configures teams of technical consultants for assigned projects at its customers’ sites.

**Sales, Marketing and Distribution**



Magic Software sells its solutions globally through its own direct sales representatives and offices and through a broad sales distribution network, including independent country distributors, independent service vendors that use Magic Software's technology to develop and sell solutions to their customers, and system integrators. Magic Software also offers software maintenance, support, training, and consulting services in connection with its products, thus aiding the successful implementation of projects and assuring successful operation of the platforms once installed. Magic Software sells its integration solutions to customers using specific popular software applications, such as SAP, Salesforce.com, IBM i (AS/400), Oracle JD Edwards, Microsoft SharePoint, Microsoft Dynamics, SugarCRM and other eco-systems. As such, Magic Software enjoys a well-diversified client base across geographies and industries including oil & gas companies, telecommunications groups, financial institutions, healthcare providers, industrial companies, public institutions and international agencies.

As of December 31, 2017, Magic Software had approximately 117 sales personnel, including a team of sales engineers who provide pre-sale technical support, presentations and demonstrations in order to support its sales force.

**Direct Sales.** For Magic xpa and AppBuilder, Magic Software's direct sales force pursues software solution providers and enterprise accounts. Magic Software's sales personnel carry out strategic sales with a direct approach to decision makers, managing a constantly monitored consultative type of sales cycle. Magic xpi and Magic xpc are mostly sold through indirect channels and through Magic Software's ecosystem business relationships, but Magic Software has some direct customers with integration needs.

**Indirect Sales.** Magic Software maintains an indirect sales channel, through its ecosystem business relationships, as well as through system integrators, value added distributors and resellers, OEM partners, as well as consultancies and service providers. Magic Software maintains an indirect sales channel for Magic xpa through MSPs and system integrators, who use its application and integration platforms to develop and deploy different applications for sale to their end-user customers.

**Distributors.** In general, Magic Software distributes its products through regional non-exclusive distributors in those countries where it does not have a sales office. A regional distributor is typically a software marketing organization with the capability to add value with consulting, training and support. Distributors that are also MSPs are generally responsible for the implementation of both Magic Software's application platform and business and process integration suite and localization into the distributors' native languages. The distributors also translate Magic Software's marketing literature and technical documentation. Distributors must undergo Magic Software's program of sales and technical training. Marketing, sales, training, consulting, product and customer support are provided by the local distributor. Magic Software is available for backup support for the distributors and for end-users. In coordination with the local subsidiaries and distributors, Magic Software also provides sales support for large and multinational accounts. Magic Software has 44 distributors in Europe, Latin America and Asia, many of whom are also MSPs.

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**VARs.** In general, Magic Software resells its products through VARs that extend their capabilities with its offerings. These include SAP VARs.

***Michpal***

Michpal, an Israeli registered company, is a developer of proprietary, on-premise payroll software solution for processing traditional payroll stubs to Israeli enterprises and payroll service providers. Michpal also developed several complementary modules such as attendance reporting, which are sold to its customers for additional fees. As of December 31, 2017, Michpal serves approximately 8,000 customers, most of which are long-term customers.

As part of its payroll software solution Michpal allows the preparation of employee paychecks, pay statements, supporting journals, summaries, and management reports and supports monthly and year-end regulatory and legislative payroll tax statements and other forms such as payroll social and income taxes, to its clients and their employees. In addition, Michpal enables its clients to connect to certain major enterprise resource planning (“ERP”) applications with a certified connector

In January 2018, Michpal released its new product and a new service line – “Michpal Pension” and “Michpal PensionPlus”. These solutions enable all Israeli employers to digitally report their employees’ pension fund payments to their respective pension funds as required by Israeli law (this requirement took effect on February 1, 2018 for employers who employ more than 21 employees and on February 1, 2019 for employers with no more than 20 employees.

***InSync***

InSync is a US based national supplier of employees to Vendor Management Systems (VMS) Workforce Management Program accounts. InSync specializes in providing professionals in the following areas; Accounting and Finance, Administrative, Customer Service, Clinical, Scientific and Healthcare, Engineering, Manufacturing and Operations, Human Resources, IT Technology, LI/MFG, and Marketing and Sales. With an experienced team of IT recruiters, InSync can rapidly respond to a wide range of requirements with well-qualified candidates. InSync currently supports more than 30 VMS program customers with employees in over 40 states.

**Our Affiliated Company**

**TSG**

TSG is a global high technology company engaged in high-end technical solutions for protecting the safety of national borders, improving data gathering mechanisms, and enhancing communications channels for military, homeland security and civilian organizations.

TSG operates primarily in the defense and homeland security arenas. The nature of military and homeland security actions in recent years, including low intensity conflicts and ongoing terrorist activities, as well as budgetary pressures to focus on leaner but more technically advanced forces, have caused a shift in the defense and homeland security priorities for many of TSG's major customers. As a result, TSG believes there is a continued demand in the areas of command, control, communications, computer and intelligence (C4I) systems, intelligence, surveillance and reconnaissance (ISR) systems, intelligence gathering systems, border and perimeter security systems, cyber-defense systems. There is also a continuing demand for cost effective logistic support and training and simulation services. TSG believes that its synergistic approach of finding solutions that combine elements of its various activities positions it to meet evolving customer requirements in many of these areas.

TSG tailors and adapts its technologies, integration skills, market knowledge and operationally-proven systems to each customer's individual requirements in both existing and new platforms. By upgrading existing platforms with advanced technologies, TSG provides customers with cost-effective solutions, and its customers are able to improve their technological and operational capabilities within limited budgets.

TSG markets its systems and products either as a prime contractor or as a subcontractor to various governments and defense and homeland security contractors worldwide. In Israel, TSG sells its defense, intelligence and homeland security systems and products mainly to the IMOD, which procures all equipment for the Israeli Defense Force (IDF).

TSG's offerings include:

*Command & Control Solutions*

TSG offers sophisticated and innovative command and control solutions that support military and civilian sectors on land, air and sea. TSG provides a variety of Command & Control solutions ranging from strategic battlefield management to tactical and special operations forces. TSG systems cover all echelons of management, from national and regional levels down to the operational and tactical levels. Its systems are field proven and used by military forces, security services and public safety organizations worldwide.

*Intelligence, Surveillance and Knowledge Management Solutions*

TSG Intelligence solutions for security agencies and defense forces meet the demand for accurate and timely intelligence, based on multiple sources and sensors. TSG unique technologies cover the entire life-cycle of intelligence from acquisition to fusion, analysis, distribution, target management and more. TSG's Knowledge Management solutions provide public sector bodies with the capacity to effectively manage their organizational data, support decision making and follow-up.

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*Telecommunication & IT Management Solutions*

TSG has extensive experience in developing and integrating telecommunications and IT solutions and tools such as Operations Support Systems (OSS), Contact Centers, Back Office Optimization and Value-Added Services (VAS) that are tailored to meet the requirements of multiple applications. Leveraging deep know-how in telecommunications, TSG provides wide-ranging offering suitable for public and private sector organizations.

*Cyber Security Solutions & Services:*

TSG provides cutting-edge security services and solutions to government and private sectors including secure critical infrastructure and financial institutions in cyber space. TSG cyber solutions, Cyber Security Center (CSC), Security Training, Security Investigations and Security Engineering support the establishment of a safe, secure and reliable work environment and cover, among other things, Security Engineering, Digital Forensics, Computer emergency response teams (CERT), Mobile Security, and Training.

*Homeland Security Solutions (HLS)*

TSG's field proven homeland security solutions maximize safety and security while minimizing threats. TSG provide its clients with paramount technologies ranging from emergency management and Chemical, biological, radiological and nuclear defense (CBRN) systems, to rescue & special operations and smart and safe city solutions.

*Supporting Tools:*

TSG offers a variety of supporting system and solutions, providing dynamic and customizable field proven applications for in the following verticals:

Facility Management  
Recording and Debriefing systems  
Trainers and Simulators  
Mapping Engines

***Geographical Distribution of Revenues***

The following table summarizes our consolidated revenues classified by geographic regions of our customers, for the periods indicated:

	Year ended December 31,	
	2016	2017
Israel	\$663,341	\$846,298
International:		
United States	283,297	322,892
Europe	115,444	131,025
Africa	2,296	24,370
Japan	38,310	15,763
Other (mainly Asia pacific)	5,933	14,791
 Total	 \$1,108,621	 \$1,355,139

***Competition***

The markets for the IT products and services we offer are rapidly evolving, highly competitive and fragmented, and, in some cases, present only low barriers to entry, with frequent new product introductions, and mergers and acquisitions. Our ability to compete successfully in IT services markets depends on a number of factors, like breadth of service offerings, sales and marketing efforts, service, pricing, and quality and reliability of services. The principal competitive factors affecting the market for the proprietary software solutions include product performance and reliability, product functionality, availability of experienced personnel, price, ability to respond in a timely manner to changing customer needs, ease of use, training and quality of support.

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We face competition, both in Israel and internationally, from a variety of companies, including companies with significantly greater resources than us who are likely to enjoy substantial competitive advantages, including:

- longer operating histories;
- greater financial, technical, marketing and other resources;
- greater name recognition;
- well-established relationships with our current and potential clients; and
- a broader range of products and services.

As a result, our competitors may be able to respond more quickly to new or emerging technologies or changes in customer requirements. They may also benefit from greater purchasing economies, offer more aggressive product and service pricing or devote greater resources to the promotion of their products and services. In addition, in the future, we may face further competition from new market entrants and possible alliances between existing competitors. We also face additional competition as we continue to penetrate international markets. As a result, we cannot assure you that the products and solutions we offer will compete successfully with those of our competitors. Furthermore, several software development centers worldwide offer software development services at much lower prices than we do. Due to the intense competition in the markets in which we operate, software products prices may fluctuate significantly. As a result, we may have to reduce the prices of our products.

Matrix's principal competitors in the domestic Israeli market are Israeli IT services companies and systems integrators, the largest of which are Hilan Ltd., Malam-Team, One-1, Taldor Computer Systems, (Aman, the Elad Group, Yael, SQLink, Emet, LogOn, HMS and OfficeSoft. Matrix's competitors in the United States market include many companies who provide similar services to those of Matrix, as well as providers of offshore services. In some cases, Matrix competes with IBM, Accenture and the Big-4 accounting firms. Matrix's international competitors in the Israeli marketplace include Microsoft, IBM, HP, Oracle and CA. These international competitors often use local subcontractors to provide personnel for contracts performed in Israel. Most of these international entities are also business partners of Matrix. Competitors with respect to infrastructure solutions include HP, Lenovo and Dell. With respect to cloud services, competitors include All Cloud, DoIT, Google, Microsoft and Amazon Web Services. Matrix competitors with respect to training are the training centers of the Technion, IITC, HackerU, Ness Technologies and Sela.

Sapiens' competitors in the insurance software solutions market differ based on the size, geography and line of business in which it operates. Some of its competitors offer a full suite of services, while others only offer one module; some operate in specific (domestic) geographies, while others operate on a global basis. In addition, delivery models vary, with some competitors keeping delivery in-house, or using IT outsourcing (ITO) or business process outsourcing (BPO).

The complex requirements of this market create a high barrier to entry for new players. As for existing players, these requirements have led to a marked increase in M&A transactions in the insurance software solutions sector, since small, local vendors have not been able to sustain growth without continuing to fund their R&D departments and follow the globalization trend of their customers.

Examples of Sapiens' primary competitors are:

- 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 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 Sapiens' solutions for this purpose);
- Internal IT departments, who often prefer to develop solutions in-house; and
- New insurtech companies with niche solutions.

With respect to Sapiens DECISION, we believe that Sapiens is considered a pioneer in its disruptive market landscape. Since the introduction of Sapiens' innovative approach to enterprise architecture to the market, Sapiens has identified only a small number of potential competitors.

We differentiate Sapiens from its potential competitors through the following key factors:

We believe that Sapiens DECISION is the only solution that offers a true separation of the business logic in a decision management system for large enterprises – and that is currently generally available and already in production. Sapiens DECISION is unique in its proven ability to support complex environments, with full audit trail and governance that is crucial for large financial services organizations. Sapiens understands complex environments where DECISION is deployed due to its experience delivering complex, mission-critical solutions.



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With respect to Magic xpa, Magic Software competes in the application platform, SOA architecture and enterprise mobility markets. Among its current competitors are Kony, IBM, Microsoft, Adobe, Oracle, SAP Sybase, OutSystems, Uniface, Progress Software, Mendix, Salesforce and Pegasystems. With respect to Magic xpi, Magic Software competes in the integration platform market. Among its current competitors are IBM, Informatica, TIBCO, MuleSoft, Jitterbit, Talend and Software AG.

More and more enterprises prefer to integrate their applications using integration platform as a service (iPaaS) technology and for this purpose Magic Software launched its new Magic xpc, a hybrid iPaaS solution.

There are several similar products in the market utilizing the model driven architecture, or MDA, approach utilized by Magic Software's AppBuilder. The market for this type of platform is highly competitive. Companies such as CA and IBM have tools that compete directly with AppBuilder. Furthermore, new development paradigms have become very popular in IT software development and developers today have many alternatives.

The telecom BSS domain in which Magic Software operates through its wholly owned FTS subsidiary is a highly competitive market in which FTS competes based on product quality, service quality, timeliness in delivery and pricing. Within the global billing, charging and policy control market, FTS principally competes against global IT providers and the in-house IT departments of telecommunications operators. Among the competitors focused on this market are Amdocs, Ericsson, Comverse, NetCracker Technology, CSG Systems, Redknee Solutions and Oracle Communications.

There are also a number of smaller or regional telecom BSS competitors who compete on a regional or domestic market level. These tend to be smaller players, and may include companies such as Comarch, Mind CTI, Tecnotree, Cerillion, Openet and Elitcore, among others.

With respect to Michpal, the market in which it operates is very fragmented and among its current competitors in the Israeli market in which it operates are mainly Hilan, MalamTeam, Tamal, Synel, Oketz systems and others.

Our goal is to maintain our technological advantages, time to market and worldwide sales and distribution network. We believe that the principal competitive factors affecting the market for our products include developer productivity, rapid results, product functionality, performance, reliability, scalability, portability, interoperability, ease-of-use, demonstrable economic benefits for developers and users relative to cost, quality of customer support and documentation, ease of installation, vendor reputation and experience, financial stability as well as intuitive and out-of-the-box solutions to extend the capabilities to effectively manage their operations and reduce their business risks in the face of changing business environments.

**Seasonality**

Even though not significantly reflected in our financial results, traditionally, the first and third quarters of the fiscal year have tended to be slower quarters for some of our subsidiaries and our affiliated companies and the industries in which they operate. The first quarter usually reflects a decline following a highly active fourth quarter during which companies seek to complete transactions and projects and utilize budgets before the end of the fiscal year. The relatively slower third quarter reflects reduced activities during the summer months in many of the regions where our customers are located and also reflects the Jewish national holidays in Israel.

In addition, our quarterly results are also influenced by the number of working days in each period. In Israel. For example, during the Jewish holidays period (typically at the end of the third quarter and beginning of the fourth quarter or at the end of the first quarter and beginning of the second quarter), when the number of working days is lower, we tend to see a decrease in our revenues which may impact our quarterly results. Following are the number of standard working hours in each quarter in the Israeli market, which accounts for approximately 60% of our annual revenues:

	1 <sup>st</sup> quarter	2 <sup>nd</sup> quarter	3 <sup>rd</sup> quarter	4 <sup>th</sup> quarter
2017	585.0	532.5	571.5	567.0
2018	576	559.5	539.5	585
2017	26	% 24	% 25	% 25
2018	25	% 25	% 24	% 26

In 2017, the second and, to a lesser extent, the fourth quarters were negatively impacted by the reduced billable hours as a result of the Jewish holiday periods. In 2018, we expect seasonality due to the Jewish holiday periods to adversely impact the second and third quarters.

The following table presents our revenues allocation per quarter in 2017 and 2016 (in percentage):

	1 <sup>st</sup> quarter	2 <sup>nd</sup> quarter	3 <sup>rd</sup> quarter	4 <sup>th</sup> quarter
2017	23.0	% 24.3	% 25.7	% 27.0

2018 23.6 % 23.4 % 25.7 % 27.3 %

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***Raw Materials***

Generally, we are not dependent on raw materials or on a single source of supply. We manage our inventory according to project requirements. In some projects, specific major subcontractors are designated by the customer. Raw materials used by us are generally available from a range of suppliers internationally, and the prices of such materials are generally not subject to significant volatility.

Further, although we believe that there are currently adequate replacements for the third-party technology that we presently use and distribute, the loss of our right to use any of this technology could result in delays in producing or delivering affected products until equivalent technology is identified, licensed or otherwise procured, and integrated. Our business would be disrupted if any third party technology we license from others or functional equivalents of that technology 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 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.

***Software Development***

The software industry is generally characterized by rapid technological developments, evolving industry standards and customer requirements, and frequent innovations. In order to maintain technological leadership, we engage in ongoing software development activity through our investees, aimed both at introducing new commercially viable products addressing the needs of our customers on a timely basis, as well as enhancing and customizing existing products and services. This effort includes introducing new supported programming languages and database management systems; improving functionality and flexibility; and enhancing ease of use. We work closely with current and potential end-users, our strategic partners and leaders in certain industry segments to identify market needs and define appropriate product enhancements and specifications.

***Intellectual Property Rights***

Sapiens holds one patent and one patent application relating to decision management technology used in the Sapiens Decision solution. In the first quarter of 2017, Sapiens acquired StoneRiver. The acquisition of StoneRiver included the acquisition of 25 registered trademarks, one issued patent and one patent application. In the first quarter of 2018 Sapiens acquired Adaptik. Adaptik owns two registered patents. In accordance with industry practice, we do not otherwise hold any patents and rely upon a combination of trade secret, copyright and trademark laws and non-disclosure agreements, to protect our proprietary know-how. Our proprietary technology incorporates processes, methods, algorithms and software that we believe are not easily copied. Despite these precautions, it may be possible for unauthorized third parties to copy aspects of our products or to obtain and use information that we regard as proprietary. We believe that because of the rapid pace of technological change in the industry generally, patent and copyright protection are less significant to our competitive position than factors such as the knowledge, ability and experience of our personnel, new product development and ongoing product maintenance and support.

With respect to our defense sector activities, the IMOD usually retains specific rights to technologies and inventions resulting from our performance under Israeli government contracts. This generally includes the right to disclose the information to third parties, including other defense contractors that may be our competitors. Consistent with common practice in the defense industry, a majority of TSG's revenues in 2017 was dependent on products incorporating technology that a government customer may disclose to third parties. When the Israeli government funds research and

development, it usually acquires rights to data and inventions. We often may retain a non-exclusive license for such inventions. The Israeli government usually is entitled to receive royalties on export sales in relation to sales resulting from government financed development. However, if only the product is purchased without development effort, we normally retain the principal rights to the technology. Subject to applicable law, regulations and contract requirements, TSG attempts to maintain its intellectual property rights and provide customers with the right to use the technology only for the specific project under contract

### ***Regulatory Impact***

The global financial services industry served in particular by Sapiens, Matrix and Michpal is heavily subject to government and market regulation, which is constantly changing. Financial services companies must comply with regulations such as the Sarbanes-Oxley Act, Solvency II, Retail Distribution Review (known as RDR) in the United Kingdom, the European Union General Data Protection Regulation, or GDPR (enforceable as of May 25, 2018), in the EU, the Dodd-Frank Act and other directives regarding transparency. In addition, many individual countries have increased supervision over local financial services companies. For example, in Europe, regulators have been very active, motivated by past financial crises and the need for pension restructuring. Distribution of insurance policies is being optimized with the increasing use of Bank Assurance (selling of insurance through a bank's established distribution channels), supermarkets and kiosks (insurance stands). Increased activity such as that in Europe would generally tend to have a positive impact on the demand for our software solutions and services; nevertheless, insurers are cautiously approaching spending increases, and while many companies have not taken proactive steps to replace their software solutions in recent years, many of them are now looking for innovative, modern replacements to meet the regulatory changes.

Matrix's IT business is generally positively affected by regulatory reform and other regulatory changes with respect to banking, insurance and telecommunications in Israel, as such reforms and changes create demand for specific IT solutions, often in a set, short time frame. In particular, regulation on large financial institutions operating in the Israeli financial market is continuously increasing, as a means of reducing the risk associated with the activities of such financial institutions and increasing transparency and increases the demand for Matrix's solutions for entities that become subject to such supervision. Banks' entry into the sphere of offering advice with respect to pension, insurance and other financial products has also generated demand for Matrix's IT solutions, given the increased supervision of the Israeli Securities Authority that is triggered by such activities, although the pace at which such demand has grown has been relatively slower. Enhanced disclosure requirements for banks and financial institutions in the Israeli market, such as those published with respect to the required capital liquidity of banks in Israel, have also been generating demand for new IT solutions that Matrix offers. Matrix's business is also affected by changes in regulations of the U.S Securities and Exchange Commission, the Financial Industry Regulatory Authority, the Commodity Futures Trading Commission, the National Futures Association, the Federal Energy Regulatory Commission, with respect to requirements relating to Know Your Customer, Customer Identification Programs, Anti-Money Laundering and Fraud Prevention.

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In recent years, there has been greater focus on core banking issues, and today a number of banks are in the process of undergoing a gradual examination / replacement of the traditional core systems. The financial market is also facing significant changes and opportunities for the IT market in light of the Strum Reform and its implications for the banking market, credit card companies and other relevant players in the financial market. In the insurance industry, there is a delay in decision making based on the prolonged selling process of some of the companies, and in light of the worsening of the capital adequacy ratios and actuarial reserves that are required by regulators and which affect the profitability of the companies, their ability to distribute a dividend or allocate budgets for IT investments as in the past.

With respect to our defense sector activities, we operate under laws, regulations and administrative rules governing defense and other government contracts, mainly in Israel. Some of these carry major penalty provisions for non-compliance, including disqualification from participating in future contracts. In addition, our participation in governmental procurement processes in Israel, the United States and other countries is subject to specific regulations governing the conduct of the process of procuring defense and homeland security contracts.

**Israeli Export Regulations.** Israel's defense export policy regulates the sale of a number of our systems and products, which are developed and marketed by our affiliated company TSG. Current Israeli policy encourages exports to approved customers of defense systems and products such as ours, as long as the export is consistent with Israeli government policy. Subject to certain exemptions, a license is required to initiate marketing activities. We also must receive a specific export license for defense related hardware, software and technology exported from Israel. Israeli law also regulates export of "dual use" items (items that are typically sold in the commercial market but that also may be used in the defense market).

**Procurement Regulations.** Solicitations for procurements by governmental purchasing agencies in Israel, the United States and other countries are governed by laws, regulations and procedures relating to procurement integrity, including avoiding conflicts of interest, corruption, human trafficking and conflict minerals in the procurement process. Such regulations also include provisions relating to information assurance and for the avoidance of counterfeit parts in the supply chain.

**Civil Aviation Regulations.** Several of the products sold by TSG for commercial aviation applications are subject to flight safety and airworthiness standards of the U.S. Federal Aviation Administration (FAA) and similar civil aviation authorities in Israel, Europe and other countries.

**Buy-Back.** As part of their standard contractual requirements for defense programs, several of our customers may include "buy-back" or "offset" provisions. These provisions are typically obligations to make, or to facilitate third parties to make, various specified transactions in the customer's country, such as procurement of defense and commercial related products, investment in the local economy and transfer of know-how.

Magic Software's business has not been impacted to a material extent by government regulations.

### C. Organizational Structure

Formula is the parent company of the Formula Group.

The following table presents certain information regarding the control and ownership of our directly held investments in subsidiaries and affiliates, as of March 31, 2018.

Subsidiaries and affiliate	Country of Incorporation	Percentage of Ownership	
Matrix IT Ltd.	Israel	49.2	%
Sapiens International Corporation N.V.	Curaçao	48.1	%
Magic Software Enterprises Ltd.	Israel	47.1	%
Michpal Micro Computers (1983) Ltd.	Israel	100.0	%
TSG IT Advanced Systems Ltd.	Israel	50.0	%
InSync Staffing Solutions, Inc.	Delaware	90.1	%

The common shares of Sapiens and the ordinary shares of Magic Software are traded on the NASDAQ Capital Market and the NASDAQ Global Select Market, respectively, and on the TASE, and the ordinary shares of Matrix are traded on the TASE.

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**D. Property, Plants and Equipment**

Formula's headquarters, as well as the headquarters and principal administrative, finance, sales, marketing and research and development office of Magic Software, are located in Or-Yehuda, Israel, a suburb of Tel Aviv. Magic Software leases its and our office space, constituting approximately 23,841 square feet, under a lease which expires in June 2019. Magic Software has an option to terminate the lease agreement upon six months prior written notice. In addition, Magic Software leases office space in the United States, Europe, Asia and South Africa. In 2017, Magic Software's rent costs totaled \$2.7 million, in the aggregate, for all of its leased offices.

Matrix leases approximately 603,000 square feet of office space in Israel pursuant to leases which expire primarily in three to four years. This includes Matrix's facility in Herzliya, which serves as Matrix's corporate headquarters. In addition, Matrix leases an aggregate of approximately 61,350 square feet of office space in locations outside of Israel. The lease terms for the spaces that Matrix currently occupies are generally three to four years. In the year ended December 31, 2017, Matrix's rent costs totaled \$18.0 million, in the aggregate, for all of its leased offices.

Sapiens leases office space in Israel, the United States, India, Poland, South Africa, the United Kingdom, Latvia, China, Canada and Denmark. The lease terms for the spaces that Sapiens currently occupies are generally five to eleven years. Based on Sapiens' current occupancy, it leases the following amount of space in the following locations: in Israel, approximately 135,100 square feet of office space; in the United States, approximately 93,600 square feet; in India, approximately 53,400 square feet; in Poland, approximately 48,100 square feet; in South Africa, approximately 42,300 square feet; in the United Kingdom, approximately 21,300 square feet; in Latvia, approximately 8,500 square feet; in China, approximately 2,900 square feet; in Canada, approximately 1,400 square feet; and, in Denmark, approximately 200 feet. Sapiens also occupies 10,243 square feet of office space in the United States that constitutes owned real property. In 2017, Sapiens rent costs totaled \$7.4 million, in the aggregate, for all of its leased offices (which does not include office space leased by KnowledgePrice.com in Latvia, since it was acquired on December 27, 2017, or Adaptik, since it was acquired after December 27, 2017). Sapiens' corporate headquarters are located in Israel and its core research and development activities are performed at its offices across Israel. The lease at Sapiens headquarters in Holon, Israel is for a term in excess of six remaining years and Sapiens holds an option to extend the term for additional five years.

We believe that our properties are adequate for our present use of them. If in the future we require additional space to accommodate our growth, we believe that we will be able to obtain such additional space without difficulty and at commercially reasonable prices.

As described in "Subsidiary Commitments" in Item 5.B below, while our subsidiaries and our affiliated companies have incurred liens on leased vehicles, leased equipment and other assets in favor of leasing companies, neither Formula nor any subsidiary has encumbered the real property that it uses in its operations.



We furthermore believe that there are no environmental issues that encumber our use of our facilities.

#### **ITEM 4A. UNRESOLVED STAFF COMMENTS**

Not applicable.

#### **ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS**

##### **Overview**

We are a global software solutions and IT professional services holdings company that is principally engaged through our directly held investees in providing proprietary and non-proprietary software solutions and IT professional services, software product marketing and support, computer infrastructure and integration solutions and learning and integration. We deliver our solutions in over 50 countries worldwide to customers with complex IT services needs, including a number of “Fortune 1000” companies.

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

Other than in our joint control in TSG in which each of we and Israeli Aerospace Industries Ltd. holds 50% of its voting power, we currently have effective control under IFRS 10 in each of our other investees, Matrix, Sapiens, Magic Software, Michpal and InSync despite the lack of absolute majority of voting power in Matrix, Magic Software and Sapiens. As a result of our effective control in these investees and in accordance with IFRS as of December 31, 2017, we consolidated their financial results with ours throughout the period covered by the financial statements included in Item 18 of this annual report. Prior to our transition to reporting under IFRS, we consolidated investees in which we held an equity interest only if we held a controlling interest in those companies. Under IFRS 10, we may consolidate entities in which we have effective control. For further information, please see Note 2(3) to our consolidated financial statements included in Item 18 of this annual report

Except for providing our investees with our management, technical expertise and marketing experience to help them create a consecutive positive economic impact and long-term value and direct their overall strategy through our active involvement, we do not conduct independent operations at our parent company level. Our operating results are, and have been, directly influenced by the business operations of our subsidiaries and affiliated company.



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Our consolidated financial statements for the years ended December 31, 2016 and 2017 are prepared in accordance with IFRS. For all periods up to and including the year ended December 31, 2015, we had historically prepared our financial statements in accordance with U.S GAAP. In order to comply with requirements of the SEC related to our transition to IFRS, we set the date of transition as January 1, 2015 and retrospectively applied IFRS as of that date and for the year ended December 31, 2015. Accordingly, we have presented herein consolidated statements of financial position that comply with IFRS applicable as of January 1, 2015, in addition to as of December 31, 2015, 2016 and 2017. Our consolidated statements of profit or loss presented herein in IFRS cover the years ended December 31, 2016 and 2017, as well as the year ended December 31, 2015 (as adjusted from its prior preparation in accordance with U.S. GAAP).

We recognize revenues in two categories: the delivery of software services and the delivery of proprietary software solutions and related services. All of our investees, recognize revenues from the delivery of software services, and most of them recognize revenues in both revenue categories. For ease of reference, we have separated our subsidiaries into these categories in accordance with the category in which each subsidiary has earned most of its revenues (although each type of revenue is nevertheless recorded according to actual revenue type, rather than based on strict, subsidiary-demarcated categories).

***Our functional and reporting currency***

The currency of the primary economic environment in which our operations and certain of our subsidiaries are conducted is the dollar. Thus, our functional currency and that of certain of our subsidiaries is the dollar. We have elected to use the dollar as our reporting currency for all years presented.

Assets, including fair value adjustments upon acquisition, and liabilities of an investee which is a foreign operation, are translated at the closing rate at each reporting date. Profit or loss items are translated at average exchange rates for all periods presented. The resulting translation differences are recognized in other comprehensive income (loss).

Intragroup loans for which settlement is neither planned nor likely to occur in the foreseeable future are, in substance, a part of the investment in the foreign operation and, accordingly, the exchange rate differences from these loans (net of the tax effect) are recorded in other comprehensive income (loss).

Upon the full or partial disposal of a foreign operation resulting in loss of control in the foreign operation, the cumulative gain (loss) from the foreign operation which had been recognized in other comprehensive income is transferred to profit or loss. Upon the partial disposal of a foreign operation which results in the retention of control in the subsidiary, the relative portion of the amount recognized in other comprehensive income is reattributed to non-controlling interests.

Transactions denominated in foreign currency are recorded upon initial recognition at the exchange rate at the date of the transaction. After initial recognition, monetary assets and liabilities denominated in foreign currency are translated at each reporting date into the functional currency at the exchange rate at that date. Exchange rate differences, other than those capitalized to qualifying assets or accounted for as hedging transactions in equity, are recognized in profit or loss. Non-monetary assets and liabilities denominated in foreign currency and measured at cost are translated at the exchange rate at the date of the transaction. Non-monetary assets and liabilities denominated in foreign currency and measured at fair value are translated into the functional currency using the exchange rate prevailing at the date when the fair value was determined.

For those subsidiaries whose functional currency has been determined to be their local currency, assets and liabilities are translated at year-end exchange rates and statement of income items are translated at average exchange rates prevailing during the year. Such translation adjustments are recorded as a separate component of accumulated other comprehensive income (loss) in equity.

***Critical Accounting Policies***

Our discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in accordance with IFRS. The preparation of our financial statements required us, in certain circumstances, to make estimations, assumptions and judgments that affect the reporting amounts of assets, liabilities, revenues and expenses and related disclosure of contingent assets and liabilities within the reporting period. We have based our estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis of making judgments about the values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. More detailed descriptions of these policies are provided in Note 2 to our consolidated financial statements contained elsewhere in this annual report.

The significant accounting policies which we believe are the most critical to aid in fully understanding and evaluating our reported financial results include the following:

**Consolidated financial statements:**

The consolidated financial statements comprise the financial statements of companies that we controlled (subsidiaries). Control is achieved when we are exposed, or have rights, to variable returns from our involvement with the investee and have the ability to affect those returns through our power over the investee. Potential voting rights are considered when assessing whether an entity has control. In a situation when we hold less than a majority of voting rights in a given entity, but it is sufficient to unilaterally direct the relevant activities of such entity, then the control is exercised. When assessing whether our voting rights are sufficient to give us power, we consider all facts and circumstances, including: the size of our holding of voting rights relative to the size and dispersion of other vote holders; our potential voting rights and other shareholders or parties; rights arising from other contractual arrangements; significant personal ties and any additional facts and circumstances that may indicate that we have, or do not have the ability to direct the relevant activities when decisions need to be made, inclusive of voting patterns observed at previous meetings of shareholders.

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The consolidation of the financial statements commences on the date on which control is obtained and ends when such control ceases.

Our financial statements and the financial statements of our investees, after being adjusted to comply with IFRS, are prepared for the same reporting period and using consistent accounting treatment of similar transactions and economic activities. Any discrepancies in the applied accounting policies are eliminated by making appropriate adjustments. Significant intragroup balances and transactions and gains or losses resulting from intragroup transactions are eliminated in full in the consolidated financial statements.

**Business combinations and goodwill:**

Business combinations are accounted for by applying the acquisition method. The cost of the acquisition is measured at the fair value of the consideration transferred on the acquisition date with the addition of non-controlling interests in the acquiree. In each business combination, we consider whether to measure the non-controlling interests in the acquiree based on their fair value on the acquisition date or at their proportionate share in the fair value of the acquiree's net identifiable assets.

Direct acquisition costs are carried to the statement of profit or loss as incurred.

In a business combination achieved in stages, equity interests in the acquiree that had been held by the acquirer prior to obtaining control are measured at the acquisition date fair value while recognizing a gain or loss resulting from the revaluation of the prior investment on the date of achieving control.

Contingent consideration is recognized at fair value on the acquisition date and classified as a financial asset or liability in accordance with IAS 39, "Financial Instruments: Recognition and Measurement". Subsequent changes in the fair value of the contingent consideration are recognized in profit or loss. If the contingent consideration is classified as an equity instrument, it is measured at fair value on the acquisition date without subsequent remeasurement.

Goodwill is initially measured at cost which represents the excess of the acquisition consideration and the amount of non-controlling interests over the net identifiable assets acquired and liabilities assumed. If the resulting amount is negative, the acquirer recognizes the resulting gain on the acquisition date without subsequent measurement.

**Investment in joint arrangements:**

Joint arrangements are arrangements in which we have joint control. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require the unanimous consent of the parties sharing control.

i. Joint ventures:

In joint ventures the parties that have joint control of the arrangement have rights to the net assets of the arrangement. A joint venture is accounted for at equity

ii. Joint operations:

In joint operations the parties that have joint control of the arrangement have rights to the assets and obligations for the liabilities relating to the arrangement. We recognize in relation to our interest our share of the assets, liabilities, revenues and expenses of the joint operation.

The acquisition of interests in a joint operation which represents a business, as defined in IFRS 3, is accounted for using the acquisition method, including the measurement of the identifiable assets and liabilities at fair value, the recognition of deferred taxes arising from this measurement, the accounting treatment of the related transaction costs and the recognition of goodwill or bargain purchase gains. This applies to the acquisition of the initial interest and additional interests in a joint operation that represents a business.

**Investments accounted for using the equity method:**

Our investments in associates and joint ventures are accounted for using the equity method. Associates are companies in which we have significant influence over the financial and operating policies without having control. An investment in an associate is accounted for using the equity method.

Under the equity method, the investment in the associate or in the joint venture is presented at cost with the addition of post-acquisition changes in our share of net assets, including other comprehensive income of the associate or the joint venture. Gains and losses resulting from transactions between us and the associate or the joint venture are eliminated to the extent of the interest in the associate or in the joint venture.



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Goodwill relating to the acquisition of an associate or a joint venture is presented as part of the investment in the associate or the joint venture, measured at cost and not systematically amortized. Goodwill is evaluated for impairment as part of the investment in the associate or in the joint venture as a whole.

Our financial statements and of the associate or joint venture are prepared as of the same dates and periods. The accounting policies applied in the financial statements of the associate or the joint venture are uniform and consistent with the policies applied in our financial statements.

Upon the acquisition of an associate or a joint venture achieved in stages when the former investment in the acquiree was accounted for pursuant to the provisions of IAS 39, we adopt the principles of IFRS 3 regarding business combinations achieved in stages. Consequently, equity interests in the acquiree that had been held by us prior to achieving significant influence or joint control are measured at fair value on the acquisition date and are included in the acquisition consideration while recognizing a gain or loss resulting from the fair value measurement.

We recognize losses of an associate in amounts which exceed its equity to the extent of our investment in the associate plus any losses that we may incur as a result of a guarantee or other financial support provided in respect of the associate. For this purpose, the investment includes long-term receivables (such as loans granted) for which settlement is neither planned nor likely to occur in the foreseeable future.

The equity method is applied until the loss of significant influence in the associate or loss of joint control in the joint venture or classification as investment held for sale. We continue to apply the equity method even in cases where the investment in the associate becomes an investment in a joint venture and vice versa. We apply the provisions of IFRS 5 to the investment or a portion of the investment in the associate or the joint venture that is classified as held-for-sale. Any retained interest in this investment which is not classified as held-for-sale continues to be accounted for using the equity method.

On the date of loss of significant influence or joint control, we measure any remaining investment in the associate or the joint venture at fair value and recognizes in profit or loss the difference between the fair value of any remaining investment plus any proceeds from the sale of the investment in the associate or the joint venture and the carrying amount of the investment on that date.

**Revenue Recognition**



We derive our revenues primarily from the sale of information technology services which also include sale of: non-proprietary software products, including maintenance, integration and infrastructure, outsourcing, training and deployment. In addition, we generate revenues from licensing the rights to use our proprietary software, provision of related IT professional services (which may or may not be considered essential to the functionality of the software license), related maintenance and technical support, as well as implementation and post-implementation consulting services.

Revenues are recognized in profit or loss when the revenues can be measured reliably, it is probable that the economic benefits associated with the transaction will flow to us and the costs incurred or to be incurred in respect of the transaction can be measured reliably. When we act as a principal and are exposed to the risks associated with the transaction, revenues are presented on a gross basis. When we act as an agent and are not exposed to the risks and rewards associated with the transaction, revenues are presented on a net basis. Revenues are measured at the fair value of the consideration less any trade discounts, volume rebates and returns.

We generally consider all arrangements with payment terms extending beyond a minimum of six or a maximum of twelve months from the delivery of the elements not to be fixed or determinable. If the fee is not fixed or determinable, revenue is recognized as payments become due from the customer, provided that all other revenue recognition criteria have been met.

We generally do not grant a right of return to our customers. When a right of return exists, revenue is deferred until the right of return expires, at which time revenue is recognized, provided that all other revenue recognition criteria are met. Deferred revenue includes unearned amounts received under maintenance and support contracts and amounts received from customers but not yet recognized as revenues.

We perform ongoing credit evaluations on our customers. Under certain circumstances, we may require prepayment. An allowance for doubtful accounts is determined with respect to those amounts that we determine to be doubtful of collection. Provisions for doubtful accounts were recorded in general and administrative expenses.

Following are the specific revenue recognition criteria which must be met before revenue is recognized by us and our subsidiaries:

- i. Revenues from software solutions and services:
  - a) Revenues from contracts based on actual inputs. Revenues from master agreements based on actual inputs are recognized based on actual labor hours.

Outsourcing - these agreements are similar in nature to agreements that are based on actual labor hours. The Group b) allocates employees to projects that are generally managed by the customers at their charge based on the pricing of labor hours. Revenues are recognized based on actual labor hours.

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Certain of our software license sales, mainly those consummated as part of an overall solution offered to a customer, may also include significant implementation and customization services, with respect to such sales, which are deemed essential to the functionality of the license. In addition, we also provide consulting services that are not deemed essential to the functionality of the license, as well as outsourcing IT services.

With respect to revenues that involve significant implementation and customization services to customer specific requirements and which are considered essential to the functionality of the product offered (for example when we sell software licenses as part of an overall solution offered to a customer that combines the sale of software licenses which includes significant implementation that is considered essential to the functionality of the license) whether generated by fixed-price or time-and-materials contracts we account for revenues for the services together with the software under contract, using the percentage-of-completion method. The percentage-of-completion method is used when the required services are quantifiable, based on the estimated number of labor hours necessary to complete the project, and under that method revenues are recognized using labor hours incurred as the measure of progress towards completion. This type of revenues is mainly included in our proprietary software products and related services, and software services, revenue streams.

The use of the percentage-of-completion method for revenue recognition requires the use of various estimates, including among others, the extent of progress towards completion, contract completion costs and contract revenue. Profit to be recognized is dependent upon the accuracy of estimated progress, achievement of milestones and other incentives and other cost estimates. Such estimates are dependent upon various judgments we make with respect to those factors, and some are difficult to accurately determine until the project is significantly underway. Progress is evaluated each reporting period. We recognize adjustments to profitability on contracts utilizing the percentage-of-completion method on a cumulative basis, when such adjustments are identified. We have a history of making reasonably dependable estimates of the extent of progress towards completion, contract revenue and contract completion costs on our long-term contracts. However, due to uncertainties inherent in the estimation process, it is possible that actual completion costs may vary from estimates.

If our actual results turn out to be materially different than our estimates, or we do not manage the project properly within the projected periods of time or satisfy our obligations under the contract, project margins may be significantly and negatively affected, which may result in losses on existing contracts. Any such reductions in margins or contract losses in a large, fixed-price contract may have a material adverse impact on our results of operations

Estimates of total project requirements are based on prior experience of customization, delivery and acceptance of the same or similar technology, and are reviewed and updated regularly by management. After delivery, if uncertainty exists about customer acceptance of the software, license revenue is not recognized until acceptance. Provisions for estimated losses on uncompleted contracts are made in the period in which such losses are first determined, in the amount of the estimated loss on the entire contract.

ii. Revenues from sales, distribution and support of software products:

We recognize revenues from the sale of software (i) only after the significant risks and rewards of ownership of the software have been transferred to the buyer for which a necessary condition is delivery of the software, either physically or electronically, or providing the right to use or permission to make copies of the software, (ii) the amount of revenues can be measured reliably, (iii) it is probable that the economic benefits associated with the transaction will flow in to us and the costs incurred or to be incurred in respect of the transaction can be measured reliably, (iv) we do not retain any continuing management involvement that is associated with ownership and (v) do not retain the effective control of the sold software. We report income on a gross basis since we act as a principal and bear the risks and rewards derived from the transaction. In addition, we recognize revenues from providing software related services. When the stage of completion cannot be determined reliably, revenues are recognized on a straight-line basis over the agreement period.

Revenue from third-party sales is recorded at a gross or net amount according to certain indicators. The application of these indicators for gross and net reporting of revenue depends on the relative facts and circumstances of each sale and requires significant judgment.

Revenues from sale agreements that do not provide a general right of return and consist of multiple elements such as hardware, service and support agreements are split into different accounting units which are separately recognized. An element only represents a separate accounting unit if and only if it has standalone value for the customer. Moreover, there should be reliable and objective evidence of the fair value of all the elements in the agreement or of the fair value of undelivered elements. Revenues from the various accounting units are recognized when the revenue recognition criteria are met with respect to all the elements of the accounting unit based on their specific type and only up to the amount of the consideration that is not contingent on completion or performance of the other elements in the contract.

Maintenance and support includes annual maintenance contracts providing for unspecified upgrades for new versions and enhancements on a when-and-if-available basis for an annual fee. The right for unspecified upgrades for new versions and enhancements on a when-and-if-available basis does not specify the features, functionality and release date of future product enhancements for the customer to know what will be made available and the general timeframe in which it will be delivered. Revenues from maintenance services are recognized on a straight-line basis at the relative portion of the maintenance contract that is determined for each reporting year. Revenues that have been received before the respective service has been provided are carried to deferred income. Maintenance and support revenue included in multiple element arrangements is deferred and recognized on a straight-line basis over the term of the maintenance and support agreement.

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iii. Revenues from training and implementation services:

Revenues from trainings and implementations are recognized when providing the service. Revenues from training services in respect of courses conducted over a period of up to 3 months will be recognize over the period of the course. Revenues from training services in respect of courses ordered in advance and long-term or short term (for a period of up to a year) retraining courses months will be recognized over the period of the course. Revenues from projects which usually ordered by organizations, will be recognize under the actual inputs recognize using the basis hours actual invested in the project.

iv. Revenues from hardware products and infrastructure solutions:

Revenues from hardware products and infrastructure solutions are recognized after all the significant risks and rewards of ownership of the products have been transferred to the buyer. We do not retain any continuing management involvement that is associated with ownership and do not retain the effective control of the sold products, the amount of revenues can be measured reliably, it is probable that the economic benefits associated with the transaction will flow to us and the costs incurred or to be incurred in respect of the transaction can be measured reliably.

**Software Development Costs**

Research expenditures incurred in the process of software development are recognized in profit or loss when incurred. An intangible asset arising from a software development project or from the development phase of an internal project is recognized if the Group can demonstrate the technical feasibility of completing the intangible asset so that it will be available for use or sale; the Group's intention to complete the intangible asset and use or sell it; the ability to use or sell the intangible asset; how the intangible asset will generate future economic benefits; the availability of adequate technical, financial and other resources to complete the intangible asset; and the ability to measure reliably the respective expenditure asset during its development. The Group establishes technological feasibility upon completion of a detailed program design or working model.

Research and development costs incurred between completion of the detailed program design and the point at which the product is ready for general release, have been capitalized.

Capitalized software costs are measured at cost less any accumulated amortization and any accumulated impairment losses on a product by product basis. Amortization of capitalized software costs begin when development is complete and the product is available for use. We consider a product to be available for use when we complete the internal

validation of the product that is necessary to establish that the product meets its design specifications including functions, features, and technical performance requirements. Internal validation includes the completion of coding, documentation and testing that ensure bugs are reduced to a minimum. The internal validation of the product takes place a few weeks before the product is made available to the market. In certain instances, we enter into a short pre-release stage, during which the product is made available to a selected number of customers as a beta program for their own review and familiarization. Subsequently, the release is made generally available to customers. Once a product is considered available for use, the capitalization of costs ceases and amortization of such costs to “cost of sales” begins.

Capitalized software costs are amortized on a product by product basis by the straight-line method over the estimated useful life of the software product (between 5-7 years, due to their high rates of acceptance, the continued reliance on these products by existing customers, and the demand for such products from prospective customers, all of which validate the Group’s expectations) which provides greater amortization expense compared to the revenue-curve method.

Research and development costs incurred in the process of developing product enhancements are generally charged to expenses as incurred.

We assess the recoverability of our capitalized software costs on a regular basis by assessing the net realizable value of these intangible assets based on the estimated future gross revenues from each product reduced by the estimated future costs of completing and disposing of it, including the estimated costs of performing maintenance and customer support over its remaining economical useful life using internally generated projections of future revenues generated by the products, cost of completion of products and cost of delivery to customers over its remaining economical useful life. During the years ended December 31, 2016 and 2017, no such unrecoverable amounts were identified.

#### **Other intangible assets**

Separately acquired intangible assets are measured on initial recognition at cost including directly attributable costs. Intangible assets acquired in a business combination are measured at fair value at the acquisition date. Expenditures relating to internally generated intangible assets, excluding capitalized development costs, are recognized in profit or loss when incurred.

Intangible assets with a finite useful life are amortized over their useful life and reviewed for impairment whenever there is an indication that the asset may be impaired. The amortization period and the amortization method for an intangible asset are reviewed at least at each year end.

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Other intangible assets are comprised mainly of customer-related intangible assets, backlogs, brand names, capitalized courses development costs, non-compete agreements and acquired technology and Patent, and are amortized over their useful lives using a method of amortization that reflects the pattern in which the economic benefits of the intangible assets are consumed or otherwise used up. The useful life of intangible assets is as follows:

	Years
Customer relationship and acquired technology	3-15
Brand names	5
Backlog, non-compete agreements and other intangibles	1-10
Patent	10

Gains or losses arising from the derecognition of an intangible asset are determined as the difference between the net disposal proceeds and the carrying amount of the asset, and are recognized in the statement of profit or loss.

Intangible assets with indefinite useful lives are not systematically amortized and are tested for impairment annually or whenever there is an indication that the intangible asset may be impaired. The useful life of these assets is reviewed annually to determine whether their indefinite life assessment continues to be supportable. If the events and circumstances do not continue to support the assessment, the change in the useful life assessment from indefinite to finite is accounted for prospectively as a change in accounting estimate and on that date the asset is tested for impairment. Commencing from that date, the asset is amortized systematically over its useful life.

We assess the recoverability of our intangible assets on a regular basis by determining whether the amortization of the asset over its remaining useful life can be recovered through undiscounted future operating cash flows from the specific software product sold. During the years ended December 31, 2016 and 2017, no unrecoverable amounts were identified.

**Taxes on income:**

Current or deferred taxes are recognized in profit or loss, except to the extent that they relate to items which are recognized in other comprehensive income or equity.

## i. Current taxes:

The current tax liability is measured using the tax rates and tax laws that have been enacted or substantively enacted by the reporting date as well as adjustments required in connection with the tax liability in respect of previous years.

ii. Deferred taxes:

Deferred taxes are computed in respect of temporary differences between the carrying amounts in the financial statements and the amounts attributed for tax purposes. Deferred taxes are measured at the tax rate that is expected to apply when the asset is realized or the liability is settled, based on tax laws that have been enacted or substantively enacted by the reporting date. Deferred tax assets are reviewed at each reporting date and reduced to the extent that it is not probable that they will be utilized. Deductible carry forward losses and temporary differences for which deferred tax assets had not been recognized are reviewed at each reporting date and a respective deferred tax asset is recognized to the extent that their utilization is probable.

Taxes that would apply in the event of the disposal of investments in investees have not been taken into account in computing deferred taxes, as long as the disposal of the investments in investees is not probable in the foreseeable future. Also, deferred taxes that would apply in the event of distribution of earnings by investees as dividends have not been taken into account in computing deferred taxes, since the distribution of dividends does not involve an additional tax liability or since it is our policy not to initiate distribution of dividends from a subsidiary that would trigger an additional tax liability.

Taxes on income that relate to distributions of an equity instrument and to transaction costs of an equity transaction are accounted for pursuant to IAS 12.

Deferred taxes are offset if there is a legally enforceable right to offset a current tax asset against a current tax liability and the deferred taxes relate to the same taxpayer and the same taxation authority.

**Impairment of non-financial assets:**

We evaluate the need to record an impairment of non-financial assets (property, plant and equipment, capitalized software costs and other intangible assets, goodwill, investments in joint venture) whenever events or changes in circumstances indicate that the carrying amount is not recoverable.

If the carrying amount of non-financial assets exceeds their recoverable amount, the assets are reduced to their recoverable amount. The recoverable amount is the higher of fair value less costs of sale and value in use. In measuring value in use, the expected future cash flows are discounted using a pre-tax discount rate that reflects the risks specific to the asset. The recoverable amount of an asset that does not generate independent cash flows is



determined for the cash-generating unit to which the asset belongs. Impairment losses are recognized in profit or loss.

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An impairment loss of an asset, other than goodwill, is reversed only if there have been changes in the estimates used to determine the asset's recoverable amount since the last impairment loss was recognized. Reversal of an impairment loss, as above, shall not be increased above the lower of the carrying amount that would have been determined (net of depreciation or amortization) had no impairment loss been recognized for the asset in prior years and its recoverable amount. The reversal of impairment loss of an asset presented at cost is recognized in profit or loss.

The following criteria are applied in assessing impairment of these specific assets:

i. Goodwill in respect of subsidiaries:

For the purpose of impairment testing, goodwill acquired in a business combination is allocated, at the acquisition date, to each of our cash-generating units that are expected to benefit from the synergies of the combination.

We review goodwill for impairment once a year, on December 31, or more frequently if events or changes in circumstances indicate that there is an impairment.

Goodwill is tested for impairment by assessing the recoverable amount of the cash-generating unit (or group of cash-generating units) to which the goodwill has been allocated. An impairment loss is recognized if the recoverable amount of the cash-generating unit (or group of cash-generating units) to which goodwill has been allocated is less than the carrying amount of the cash-generating unit (or group of cash-generating units). Any impairment loss is allocated first to goodwill. Impairment losses recognized for goodwill cannot be reversed in subsequent periods.

ii. Investment in associate or joint venture using the equity method:

After application of the equity method, we determine whether it is necessary to recognize any additional impairment loss with respect to the investment in associates or joint ventures. We determine at each reporting date whether there is an objective evidence that the carrying amount of the investment in the associate or the joint venture is impaired. The test of impairment is carried out with reference to the entire investment, including the goodwill attributed to the associate or the joint venture.

iii. Intangible assets with an indefinite useful life:

The impairment test is performed annually, on December 31, or more frequently if events or changes in circumstances indicate that there is an impairment.

During the years ended December 31, 2016 and 2017, no impairment indicators were identified.

**Compound financial instruments:**

Convertible debentures which contain both an equity component and a liability component are separated into two components. This separation is performed by first determining the liability component based on the fair value of an equivalent non-convertible liability. The value of the conversion component is determined to be the residual amount. Directly attributable transaction costs are apportioned between the equity component and the liability component based on the allocation of proceeds to the equity and liability components.

Convertible debentures that are denominated in foreign currency contain two components: the conversion component and the debt component. The liability conversion component is initially recognized as a financial derivative at fair value. The balance is attributed to the debt component. Directly attributable transaction costs are allocated between the liability conversion component and the liability debt component based on the allocation of the proceeds to each component.

**Put option granted to non-controlling interests:**

When we grant to the holder of a non-controlling interest in our subsidiary a put option to sell part or all of their interest in that subsidiary during a certain period, on the date of grant, the non-controlling interest is classified as a financial liability under redeemable non-controlling interests.

We re-measure the financial liability at the end of each reporting period based on the estimated present value of the consideration to be transferred upon the exercise of the put option. If we have present ownership of the non-controlling interest, the non-controlling interest is accounted for as if it is held by us and changes in the amount of the liability are carried to profit or loss. If we do not have present ownership, the interest is accounted for using the partial recognition method. Accordingly, a portion of net profit attributable to non-controlling interests is still allocated to profit or loss but at the end of the reporting period the non-controlling interests are reclassified as a financial liability. The difference between non-controlling interest at the end of the reporting period and the present value of the liability is recognized directly in our equity, under "Adjustment to redeemable non-controlling interests". If the option is exercised in subsequent periods, the consideration paid upon exercise is treated as settlement of the liability. If the option expires, the liability is settled and it is a portion of the investment in the subsidiary disposed of, without loss of control therein.



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***Disclosure of new standards in the period prior to their adoption***

1. IFRS 15, “Revenue from Contracts with Customers”:

IFRS 15, or the new Standard, was issued by the IASB in May 2014. The new Standard replaces IAS 18, “Revenue”, IAS 11, “Construction Contracts”, IFRIC 13, “Customer Loyalty Programs”, IFRIC 15, “Agreements for the Construction of Real Estate”, IFRIC 18, “Transfers of Assets from Customers” and SIC-31, “Revenue - Barter Transactions Involving Advertising Services”.

The new Standard introduces a five-step model that will apply to revenue earned from contracts with customers:

Step 1: Identify the contract with a customer, including reference to contract combination and accounting for contract modifications.

Step 2: Identify the separate performance obligations in the contract.

Step 3: Determine the transaction price, including reference to variable consideration, financing components that are significant to the contract, non-cash consideration and any consideration payable to the customer.

Step 4: Allocate the transaction price to the separate performance obligations on a relative stand-alone selling price basis using observable information, if it is available, or using estimates and assessments.

Step 5: Recognize revenue when a performance obligation is satisfied, either at a point in time or over time.

The new Standard allows the option of modified retrospective adoption with certain reliefs according to which the new Standard will be applied to existing contracts from the initial period of adoption and thereafter with no restatement of comparative data. Under this option, we will recognize the cumulative effect of the initial adoption of the new Standard as an adjustment to the opening balance of retained earnings (or another component of equity, as applicable) as of the date of initial application. Alternatively, the new Standard permits full retrospective adoption with certain reliefs.

We have established for each of our subsidiaries an implementation team to analyze the potential impact the new Standard will have on our consolidated financial statements and related disclosures as well as on each of our subsidiaries’ business processes, systems and controls. This includes reviewing revenue contracts across all revenue streams and evaluating potential differences that would result from applying the requirements under the new Standard. We have adopted the new Standard on January 1, 2018 using the Modified Retrospective Adoption Transition

Method.

We have completed our evaluation of the new Standard and identified that the main impact of the new Standard on our reporting relates to the way we account for term license arrangements and costs incurred for obtaining customer contracts. Specifically, under the current revenue standard, we recognize both the term license and maintenance revenues ratably over the contract period, whereas under the new Standard, term license revenues are recognized upfront, upon delivery, and the associated maintenance revenues are recognized over the contract period. We also considered the impact of IFRS 15 with respect to the treatment of incremental costs of obtaining a contract, such as sales commissions. Under our current accounting policy, sales commissions are expensed as incurred. The new Standard requires the capitalization of all incremental costs that we incur to obtain a contract with a customer that it would not have incurred if the contract had not been obtained, provided we expect to recover the costs.

We have applied the new Standard with respect to Sapiens' existing contracts for term license which are not substantially completed as of January 1, 2018. As a result, we expect to record a decrease to our deferred revenues of approximately \$1.5 million mainly from upfront recognition of license revenue from term licenses, an asset of approximately \$0.6 million related to incremental costs to obtain contracts which is mainly due to sales commissions, and a decrease to our non-controlling interests of \$0.5 million to account for our equity interest in Sapiens.

We have completed our evaluation of the new Standard and do not expect any other material change in our pattern of revenue recognition.

## 2. IFRS 9, "Financial Instruments"

In July 2014, the IASB issued the final and complete version of IFRS 9, "Financial Instruments," or IFRS 9, which replaces IAS 39, "Financial Instruments: Recognition and Measurement". IFRS 9 mainly addresses the classification, measurement and derecognition of financial assets and financial liabilities, introduces new rules for hedge accounting and a new impairment model for financial assets. IFRS 9 retains but simplifies the mixed measurement model and establishes three primary measurement categories for financial assets: amortized cost, fair value through OCI and fair value through profit or loss. It introduces a new expected credit losses model that replaces the incurred loss impairment model used in IAS 39. For financial liabilities there were no changes to classification and measurement except for the recognition of changes in own credit risk in other comprehensive income, for liabilities designated at fair value through profit or loss.

IFRS 9 is to be applied for annual periods beginning on January 1, 2018. Early adoption is permitted. We do not expect that the amendments to IFRS 9 will have a material impact on our consolidated financial statements.

## 3. IFRS 16, "Leases":

In January 2016, the IASB issued IFRS 16, "Leases," or the new Standard. According to the new Standard, a lease is a contract, or part of a contract, that conveys the right to use an asset for a period of time in exchange for consideration.

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According to the new Standard:

Lessees are required to recognize an asset and a corresponding liability in the statement of financial position in respect of all leases (except in certain cases) similar to the accounting treatment of finance leases according to the existing IAS 17, "Leases".

According to the new Standard:

Lessees are required to recognize an asset and a corresponding liability in the statement of financial position in respect of all leases (except in certain cases) similar to the accounting treatment of finance leases according to the existing IAS 17, "Leases".

Lessees are required to initially recognize a lease liability for the obligation to make lease payments and a corresponding right-of-use asset. Lessees will also recognize interest and depreciation expense separately.

Variable lease payments that are not dependent on changes in the Consumer Price Index ("CPI") or interest rates, but are based on performance or use (such as a percentage of revenues) are recognized as an expense by the lessees as incurred and recognized as income by the lessors as earned.

In the event of change in variable lease payments that are CPI-linked, lessees are required to re-measure the lease liability and the effect of the re-measurement is an adjustment to the carrying amount of the right-of-use asset.

The new Standard includes two exceptions according to which lessees are permitted to elect to apply a method similar to the current accounting treatment for operating leases. These exceptions are leases for which the underlying asset is of low value and leases with a term of up to one year.

The accounting treatment by lessors remains substantially unchanged, namely classification of a lease as a finance lease or an operating lease.

The new Standard is effective for annual periods beginning on or after January 1, 2019. Early adoption is permitted provided that IFRS 15, "Revenue from Contracts with Customers", is applied concurrently. For leases existing at the date of transition, the new Standard permits lessees to use either a full retrospective approach, or a modified retrospective approach, with certain transition relief whereby restatement of comparative data is not required.



We are evaluating the possible effects of the new Standard. However, at this stage, the Company is unable to quantify the impact on the financial statements.

4. IFRIC 23 – “Treatment of uncertainty related to taxes on income”:

In June 2017, the IASB issued IFRIC 23, “Uncertainty over Income Tax Treatments” (the “Interpretation”). The Interpretation clarifies the rules of recognition and measurement of assets or liabilities in accordance with the provisions of IAS 12, “Income Taxes”, in situations of uncertainty involving income taxes. The Interpretation provides guidance on considering whether some tax treatments should be considered collectively, examination by the tax authorities, measurement to reflect uncertainty involving income taxes in the financial statements and accounting for changes in facts and circumstances underlying the uncertainty.

The Interpretation is to be applied in financial statements for annual periods beginning on January 1, 2019. Early adoption is permitted. Upon initial adoption, the Company will apply the Interpretation using one of two approaches:

- Full retrospective adoption, without restating comparative data, by recording the cumulative effect through the date of initial adoption in the opening balance of retained earnings.
  
- Full retrospective adoption including restatement of comparative data.

We are evaluating the possible impact of the adoption of the Interpretation but are presently unable to assess its effect, if any, on our financial statements.

## **A. Operating Results**

### ***Year Ended December 31, 2017 Compared to Year Ended December 31, 2016***

The following tables set forth certain data from our statement of profit or loss for the years ended December 31, 2016 and 2017, as well as such data as a percentage of our revenues for those years. The data has been derived from our audited consolidated financial statements included elsewhere in this annual report. The operating results for the below years should not be considered indicative of results for any future period. This information should be read in conjunction with the audited consolidated financial statements and notes thereto included in this annual report.

Table of Contents**Statements of Profits or Loss**

(U.S. dollars, in thousands)

	<b>Year ended</b>	
	<b>December 31,</b>	
	2016	2017
Revenues	1,108,621	1,355,139
Cost of revenues	849,840	1,058,316
Gross profit	258,781	296,823
Research and development expenses, net	22,328	39,853
Selling, marketing, general and administrative expenses	147,953	184,116
Operating income	88,500	72,854
Financial expenses	(17,594 )	(29,916 )
Financial income	6,008	8,749
Group's share of earnings of companies accounted for at equity, net	349	1,124
Income before taxes on income	77,263	52,811
Taxes on income	21,163	13,371
Net income	\$56,100	\$39,440
Attributable to:		
Equity holders of the Company	22,445	10,352
Redeemable non-controlling interests	2,125	3,671
Non-controlling interests	31,530	25,417
	\$56,100	\$39,440

**Statement of Profits or Loss as a****Percentage of Revenues**

	<b>Year ended</b>	
	<b>December</b>	
	<b>31,</b>	
	2016	2017
Revenues	100%	100%

Cost of revenues	77 %	78 %
Gross profit	23 %	22 %
Research and development expenses, net	2 %	3 %
Selling, marketing, general and administrative expenses	13 %	14 %
Operating income	8 %	5 %
Financial expenses	(2 )%	(2 )%
Financial income	1 %	1 %
Income before taxes on income	7 %	4 %
Taxes on income	2 %	1 %
Net income	5 %	3 %
Attributable to:		
Equity holders of the Company	2 %	1 %
Redeemable non-controlling interests Non-controlling interests	3 %	2 %
	5 %	3 %

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***Revenues.*** Revenues in 2017 increased by 22.2%, from \$1,108.6 million in 2016 to \$1,355.1 million in 2017. Revenues from the two categories of our operations were as follows: revenues from the delivery of software services increased by 21.4%, from \$835.4 million in 2016 to \$1,013.8 million in 2017, and revenues from the sale of our proprietary software products and related services increased by 24.9%, from \$273.2 million in 2016 to \$341.4 million in 2017.

The increase in software services revenues was recorded across the following of our investees reporting under this revenue stream— Matrix, and Magic Software— and was primarily due to growth in their revenues as described below, as offset in part by a decrease in revenues recorded by Insync, which also reports under this revenue stream:

***Matrix:***

Matrix's revenues increased from NIS 2,544.6 million (approximately \$662.6 million) in 2016 to NIS 2,857.1 million (approximately \$794.6 million) in 2017, reflecting an increase of 12.3% when measured in NIS, Matrix local currency (compared to 20.0% when measured in U.S dollars due to the devaluation of the U.S Dollar versus the NIS). The increase in Matrix's revenues was due to an increase in almost all of Matrix's principal areas of operations and due to the inclusion of Aviv Management Engineering (consolidated as of December 2016), and Network Infrastructure Technologies (consolidated as of October 2016) for the full year. The increase was primarily attributable to an increase of 13.8 % in Matrix's software solutions and services in its Israeli business line from NIS 1,546.3 million (approximately \$402.6 million) in 2016 to NIS 1,759.5 million (approximately \$489.3 million) in 2017, an increase of 14.8% in Matrix's computer infrastructure and integration solutions from NIS 418.5 million (approximately \$109.0 million) in 2016 to NIS 480.5 million (approximately \$133.6 million) in 2017 and an increase of 14.2% in Matrix's Software solutions and services in the United States from NIS 286.4 million (approximately \$74.6 million) in 2016 to NIS 327.0 million (approximately \$90.6 million) in 2017.

***Magic Software:***

Magic Software's revenues, reported under this revenue stream, increased by 35.8% from \$141.1 million to \$191.6 million, primarily attributable to (i) increased demand for the professional services offerings in Israel by Comblack IT Ltd, and in the U.S by all of our U.S subsidiaries' and (ii) the inclusion of Shavit Software (2009) Ltd. (consolidated as of November 2016), Twingo Ltd., (consolidated as of August 2016) and Quickcode Ltd., (consolidated as of February 2016) for the full year'.

***InSync:***

InSync's revenues decreased by 4.0% from \$34.3 million in 2016 to \$33.1 million.'

The increase in revenues from proprietary software products and related services was attributable in part to the inclusion for the first time of Michpal (consolidated as of January 2017) and to the following results involving Sapiens and Magic Software:

***Sapiens:***

Sapiens revenues increased from \$216.2 million in 2016 to \$269.2 million in 2017, reflecting an increase of 24.5%. The net increase in revenues of approximately \$53 million for the year ended December 31, 2017 was attributable to additional revenues from entities acquired by Sapiens, which contributed \$64.3 million towards that increase, primarily from StoneRiver, which Sapiens acquired in 2017. Sapiens' revenues reflected organic growth of approximately \$27.7 million in 2017 (excluding the impact of the specific factors described in the following sentence, which negatively impacted, and caused an overall decrease in our revenues from Sapiens existing customers), primarily due to implementation and professional services generated from Sapiens existing and new customers. Sapiens' revenues in 2017 were offset, in part, by decreases in Sapiens' revenues in amounts of \$26.5 million due to cancelation of a development project with a significant customer in 2017, and \$12.5 million attributable to the downsizing of Sapiens' non-insurance and financial services activities in Japan in 2017.

In October 2017, Sapiens signed an agreement with a 10% shareholder of Sapiens Japan Co., its 90%-owned Japanese subsidiary, under which such shareholder's independent company will separately provide all professional services requested by Sapiens' customers in Japan. As a result of this arrangement, Sapiens' revenues from non-insurance and financial professional services in Japan have begun to, and are expected to continue to, decrease significantly. In connection with this arrangement, Sapiens terminated all employment agreements of its Japanese subsidiary's employees (most of whom were then hired by the shareholder's new company). Despite the new arrangement, Sapiens will continue to provide maintenance services only to existing Japanese customers who had purchased licenses for its eMerge product.

***Magic Software:***

Magic Software's revenues, reported under this revenue stream, increased by 13.3% from \$57.1 million in 2016 to \$64.6 million in 2017. The increase in Magic Software revenues was attributable to (i) anticipated software renewal lifecycle among some of its AppBuilder's larger enterprise customers, (ii) increased demand for the Magic xpi Integration Platform, which grew by 51% compared to 2016 and (iii) the inclusion of Roshtov Software Industries Ltd (consolidated as of July 2016) in Magic Software's consolidated results for 2017. Those factors were offset in part by a decrease in Magic Software's revenues from its vertical packaged software solution Leap™ following a successful completion of a large project, and by a 6% decline in Magic xpa licenses sale.



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A breakdown of our overall revenues into proprietary software products and related services and software services revenues for the years ended December 31, 2016 and 2017, the percentage those respective categories of revenues constituted out of our total revenues in those years, and the percentage change for each such category of revenues from 2016 to 2017, are provided in the below table:

Revenue category	Year ended December 31, 2016		Year-over Year change	Year ended December 31, 2017	
	Revenues (\$ in thousands)	Percentage		Revenues	Percentage
Proprietary software products and related services	273,235	24.65 %	24.93 %	341,350	25.19 %
Software services	835,386	75.35 %	21.36 %	1,013,789	74.81 %
Total	1,108,621	100 %	22.24 %	1,355,139	100 %

***Revenues by geographical region***

The dollar amount of our revenues attributable to each of the geographical regions in which we conduct our operations for the years ended December 31, 2016 and 2017, respectively, were as follows:

	Year ended December 31,	
	2016	2017
	(\$ in thousands)	
Israel	\$663,341	\$846,298
International:		
United States	283,297	322,892
Europe	115,444	131,025
Africa	2,296	24,370
Japan	38,310	15,763
Other (mainly Asia pacific)	5,933	14,791
Total	\$1,108,621	\$1,355,139

***Cost of Revenues.*** Cost of revenues consists primarily of wages, personnel expenses, other personnel-related expenses of software consultants, subcontractors and engineers, royalties and licenses payable to third parties, amortization of capitalized software, and hardware and other materials costs. Cost of revenues increased by 24.5% from \$849.8 million in 2016 to \$1,058.3 million in 2017. As a percentage of total revenues, costs of revenues in 2016 and 2017

were 76.7% and 78.1%, respectively.

Our proprietary software solutions and related services sales are generally characterized by a higher gross margin than sales of our software services. The cost of revenues for proprietary software solutions and related services increased from \$149.2 million in 2016 to \$201.3 million in 2017. As a percentage of our proprietary software solutions and related services revenues, costs of revenues for proprietary software solutions and related services increased to 59.3% in 2017 compared to 54.6% in 2016.

The cost of revenues for software services increased from \$700.6 million in 2016 to \$857.0 million in 2017. As a percentage of software services revenues, costs of revenues for software services in 2016 and 2017 remained relatively stable at 84.4% in 2017 compared to 83.9% in 2016.

The increase in our cost of revenues was attributable in part to the inclusion for the first time of Michpal (consolidated as of January 2017) and to the following increases involving Matrix, Sapiens and Magic Software:

**Matrix:**

Matrix's cost of revenues increased by 20.9% from \$560.4 million in 2016 to \$677.7 million in 2017. The increase in absolute cost of revenues was related to the increase in Matrix's revenues during the year ended December 31, 2017 relative to the year ended December 31, 2016. The level of Matrix's cost of revenues as a percentage of its revenues has consistently increased slightly in recent years from 84% and 84.6% in 2015 and 2016, respectively, to 85.3% in 2017. The increase in Matrix's cost of revenues as a percentage of its revenues as recorded in U.S. dollars was primarily attributable to continual increases in employee salaries in Israel and in the U.S.



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**Sapiens:**

Sapiens' cost of revenues increased by 35.0% from \$130.2 million in 2016 to \$175.8 million in 2017 (when measured in accordance with IFRS). Cost of revenues increased as a percentage of revenues during the year ended December 31, 2017, to 65.3% as compared to 60.2% during the year ended December 31, 2016. The increase in absolute cost of revenues of \$45.6 million was primarily attributable to an increase in cost of revenues of acquired companies totaling \$39.1 million. The increase of 5% in Sapiens' cost of revenues as a percentage of revenues was primarily due to the cancelation of a project development with a high degree of profitability in 2016 that did not continue in 2017, which caused an increase of 4.1% in Sapiens' cost of revenues as a percentage of its revenues, as well as from the appreciation of the New Israeli Shekel relative to the U.S. dollar, which resulted in an increase in cost of revenues as a percentage of revenues as recorded in U.S. dollars for the year ended December 31, 2017.

**Magic Software:**

Magic Software's cost of revenues increased by 31.3% from \$133.4 million in 2016 to \$175.2 million in 2017. The increase in cost of revenues was primarily attributable to: (i) the inclusion of Roshtov Software Industries Ltd. for the full year (consolidated as of July 2016) and an increase in amortization costs of Roshtov Software Industries Ltd.'s acquired software, Clicks; (ii) an increase in amortization of capitalized software development costs related to Magic xpa and Magic xpi application development and integration platforms, (iii) the inclusion of Shavit Software (2009) Ltd. (consolidated as of November 2016), Twingo Ltd., (consolidated as of August 2016) and Quickcode Ltd., (consolidated as of February 2016) for the full year. The remaining increase in Magic Software's cost of revenues was attributable to the increase in Magic Software's revenues from IT consulting services.

Cost of revenues for the years ended December 31, 2017 and 2016 include insignificant amounts of stock-based compensation.

**Research and Development Costs, net.** Research and development, or R&D, expenses consist primarily of wages and related expenses and, to a lesser degree, consulting fees that we pay to employees and independent contractors, respectively, engaged in research and development. Research and development expenses, net, consist of research and development expenses, gross, less capitalized software costs.

Research and development expenses, gross, increased from \$32.1 million in 2016 to \$49.4 million in 2017, mainly due to the R&D investments in our newly acquired entities (StoneRiver, Inc, KnowledgePrice.com, Roshtov Software Industries Ltd. and Michpal), which totaled \$14.0 million, as well as to increased investment in research and development activities in support of the expansion of our offering of solutions in the year ended December 31, 2017.

In 2017, we capitalized software costs of \$9.6 million, compared to \$9.8 million in 2016. Capitalization of software costs in 2016 and 2017 was attributable to our subsidiaries engaged in providing proprietary software solutions (i.e., Magic Software and certain of its subsidiaries, Sapiens and certain of its subsidiaries and Michpal). Research and development expenses, net, increased from \$22.3 million in 2016 to \$39.9 million in 2017, mainly due to the factors described above.

As a percentage of revenues, research and development expenses, net, increased from 2.0% in 2016 to 2.9% in 2017. Research and development expenses for the years ended December 31, 2017 and 2016 include insignificant amounts of stock-based compensation.

**Selling, Marketing General and Administrative Expenses.** Selling, marketing, general and administrative, or SMG&A, expenses consist primarily of cost of salaries, severance and related expenses of sales, marketing, management and administrative employees, travel expenses, selling expenses, rent, utilities, communications expenses, expenses related to external consultants, depreciation, amortization and other expenses. Selling, marketing, general and administrative expenses increased from \$148.0 million in 2016 to \$184.1 million in 2017. As a percentage of revenues, SMG&A remained relatively stable at 13.6% in 2017 compared to 13.4% in 2016.

The increase in the cost of SMG&A was attributable in part to the inclusion for the first time of Michpal (consolidated as of January 2017), which accounted for \$1.5 million of SMG&A expenses, and to the following increases involving Matrix, Sapiens and Magic Software:

**Matrix:**

Matrix's SMG&A expenses increased to \$62.6 million for the year ended December 31, 2017 compared to \$53.4 million for the year ended December 31, 2016, representing an increase of \$9.2 million. This increase was mainly attributable to a capital gain of \$3.2 million recorded in 2016 following the sale of full rights to real property (which capital gain offset SMG&A expense in 2016) and the inclusion of the SMG&A expenses of Aviv Management Engineering (consolidated as of December 2016) and Network Infrastructure Technologies (consolidated as of October 2016) for the full year in 2017.

**Sapiens:**

Sapiens' SMG&A expenses increased to \$60.3 million for the year ended December 31, 2017 compared to \$44.7 million for the year ended December 31, 2016, representing an increase of \$15.6 million. This increase was mainly attributable to SMG&A expenses of Sapiens' newly acquired entities, which totaled \$9.2 million in 2017, as well as SMG&A expenses of \$8.1 million associated with Sapiens' cost reduction and reorganization program, which primarily relates to costs of employee terminations and reduction in leasing facilities globally, including the

downsizing of Sapiens' non-insurance and financial services activities in Japan in 2017.

Table of Contents**Magic Software:**

Magic Software's SMG&A expenses increased to \$50.1 million for the year ended December 31, 2017 compared to \$41.3 million for the year ended December 31, 2016, representing an increase of \$8.8 million. This increase was mainly attributable to: (i) an increase of 15% in Magic Software's sales and marketing expenses from \$23.8 million in 2016 to \$27.2 million in 2017, mainly resulting from an increase in amortization expenses of acquired customer relationships recorded as a result of business combinations in 2017 amounting to \$6.5 million, compared to \$5.3 million in 2016; (ii) the sales and marketing expenses in an amount of \$1.4 million in 2017 of entities that were acquired during 2016 and which were consolidated for the entire year for the first time in 2017; (iii) an increase in Magic Software's sales and marketing investments in its software technology platforms amounting to \$0.8 million; (iv) an increase of 30% in Magic Software's general and administrative expenses from \$17.6 million in 2016 to \$22.8 million in 2017, primarily attributable to the general and administrative expenses of companies acquired during 2016 and consolidated for the entire year for the first time in 2017, which contributed \$1.9 million of general and administrative expenses; (v) an increase in headcount of Magic Software's general and administrative employees from 122 in 2016 to 139 in 2017; and (vi) an increase in provision for doubtful accounts from \$0.4 million recorded in 2016 to \$1.2 million recorded in 2017.

Selling, marketing general and administrative expenses for the years ended December 31, 2016 and 2017 included \$4.3 million and \$4.0 million, respectively, of stock-based compensation expenses.

***Operating Income.*** Our operating income decreased from \$88.5 million in 2016 to \$72.9 million in 2017. As a percentage of revenues, our operating income decreased from 8.0% in 2016 to 5.4% in 2017. The decrease in our operating income during the year ended December 31, 2017 relative to the year ended December 31, 2016 as an absolute amount was attributable to the various gross profit and operating expenses trends described above.

***Financial Expenses, net.*** Financial expenses increased from \$17.6 million in 2016 to \$29.9 million in 2017. Financial expenses, net increased from \$11.6 million in 2016 to \$21.2 million in 2017. Financial expenses are influenced by various factors, including: our cash balances; loan balances; outstanding debentures; changes in market value of trading marketable securities; changes in liabilities related to business combinations; changes in the exchange rate of the NIS against the dollar; changes in the exchange rate of the dollar against the Euro; and changes in the Israeli consumer price index, or CPI. The increase in net financial expenses in 2017 was primarily attributable to (i) increased financial expenses of \$6.5 million recorded during the year ended December 31, 2017 compared to \$0.9 million recorded during the year ended December 31, 2016 with respect to the revaluation of Formula's Series A Secured Debentures, which are linked to the NIS, due to the devaluation of the US dollar relative to the NIS; (ii) an increase in Magic Software's interest expenses on its debt to banks and financial institutions by an amount of \$1.6 million; (iii) an increase in Sapiens' financial expenses to \$3.1 million during the year ended December 31, 2017 compared to financial income of \$0.5 million during the year ended December 31, 2016, which was attributable to an aggregate of \$1.6 million of interest expenses in connection with (a) the long-term loan that Sapiens borrowed and repaid in its entirety six months later during 2017, as well as (b) interest on Sapiens' newly-issued debentures in 2017.

**Equity in gains of affiliated companies net.** Our equity in gains of affiliated companies, net, increased from \$349,000 in 2016 to \$1.1 million in 2017. Our equity in gains of affiliates in 2017 was attributable to TSG.

**Taxes on Income.** Taxes on income decreased from \$21.2 million in 2016 to \$13.4 million in 2017. The decrease in our expense from taxes on income was primarily attributable to Sapiens' shift from tax expenses on income of \$5.8 million recorded during the year ended December 31, 2016 to a tax benefit of \$2.6 million during the year ended December 31, 2017. Sapiens' shift to a tax benefit in 2017 compared to tax expense in the previous year was mainly attributable to the one-time effect of \$3.8 million of tax benefit resulting from the remeasurement of Sapiens' deferred tax liability in respect of its US subsidiaries, due to a decrease in the federal corporate income tax rate following the enactment of the Tax Cuts and Jobs Act in the United States in December 2017, as well as an increase in deferred tax assets recorded in 2017 in respect of the one-time cost reduction and reorganization program that Sapiens believe will more likely than not be utilized in the near future.

**Net income attributable to redeemable non-controlling interests.** Change in redeemable non-controlling interest in 2016 amounted to an expense of \$2.1 million. Change in redeemable non-controlling interest in 2017 amounted to an expense of \$3.7 million. Net income attributable to redeemable non-controlling interests includes the redeemable non-controlling interests held by other shareholders in our consolidated companies, which were not wholly owned by Formula during each of the periods indicated, as to which we have granted put options to sell part or all of their capital interests in our subsidiary.

**Net income attributable to non-controlling interests.** Net income attributable to non-controlling interests includes the non-controlling interests held by other shareholders in our consolidated companies which are not wholly owned by Formula during each of the periods indicated. Net income attributable to non-controlling interests decreased from \$31.6 million in 2016 to \$25.4 million in 2017, mainly due to the decrease in Sapiens' net income attributable to its shareholders from \$19.8 million during the year ended December 31, 2016 to \$0.7 million during the year ended December 31, 2017.

### ***Comparison of the years ended December 31, 2016 and 2015***

The following tables set forth certain data from our statement of profit or loss for the years ended December 31, 2015 and 2016, as well as such data as a percentage of our revenues for those years. The data has been derived from our audited consolidated financial statements included elsewhere in this annual report. The operating results for the below years should not be considered indicative of results for any future period. This information should be read in conjunction with the audited consolidated financial statements and notes thereto included in this annual report.

Table of ContentsStatements of Profits or Loss  
(U.S. dollars, in thousands)

	<b>Year ended</b>	
	<b>December 31,</b>	
	2015	2016
Revenues	973,194	1,108,621
Cost of revenues	741,270	849,840
Gross profit	231,924	258,781
Research and development expenses, net	15,123	22,328
Selling, marketing, general and administrative expenses	140,935	147,953
Operating income	75,866	88,500
Financial expenses	(14,955 )	(17,594 )
Financial income	5,422	6,008
Group's share of earnings of companies accounted for at equity, net	5	349
Income before taxes on income	66,338	77,263
Taxes on income	15,984	21,163
Net income	\$50,354	\$56,100
Attributable to:		
Equity holders of the Company	19,829	22,445
Redeemable non-controlling interests	864	2,125
Non-controlling interests	29,661	31,530
	\$50,354	\$56,100

**Statement of Income Data as a****Percentage of Revenues**

	<b>Year ended</b>	
	<b>December 31,</b>	
	2015	2016
Revenues	100%	100%

Cost of revenues	76 %	77 %
Gross profit	24 %	23 %
Research and development expenses, net	2 %	2 %
Selling, marketing, general and administrative expenses	14 %	13 %
Operating income	8 %	8 %
Financial expenses	(2 )%	(2 )%
Financial income	1 %	1 %
Income before taxes on income	7 %	7 %
Taxes on income	2 %	2 %
Net income	5 %	5 %
Attributable to:		
Equity holders of the Company	2 %	2 %
Non-controlling interests	3 %	3 %
	5 %	5 %

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***Revenues.*** Revenues in 2016 increased by 13.9%, from \$973.2 million in 2015 to \$1,108.6 million in 2016. Revenues from the two categories of our operations were as follows: revenues from the delivery of software services increased by 14.4%, from \$730.4 million in 2015 to \$835.4 million in 2016, and revenues from the sale of our proprietary software products and related services increased by 12.5%, from \$242.8 million in 2015 to \$273.2 million in 2016.

The increase in software services revenues was recorded across all our investees reporting under this revenue stream: Matrix, Magic Software and InSync) and primarily due to the growth in

***Matrix:***

Matrix's revenues increased from NIS 2,280.1 million (approximately \$586.6 million) in 2015 to NIS 2,544.6 million (approximately \$662.6 million) in 2016, reflecting an increase of 11.6% when measured in NIS, Matrix local currency (compared to 13.0% when measured in U.S dollars due to the devaluation of the U.S Dollar versus the NIS). The increase in Matrix's revenues was due to an increase in almost all of Matrix's principal areas of operations. The increase was primarily attributable to an increase of 9.7 % in Matrix's software solutions and services in Israel business line from NIS 1,409.4 million (approximately \$362.6 million) in 2015 to NIS 1,546.3 million (approximately \$402.6 million) in 2016 and an increase of 28.6% in Matrix's computer infrastructure and integration solutions from NIS 325.5 million (approximately \$83.7 million) in 2015 to NIS 418.5 million (approximately \$109.0 million) in 2016. Revenues from Matrix's software product marketing and support business line, were similar in 2016 and 2015.

***Magic Software:***

Magic Software's revenues, reported under this revenue stream, increased by 20.8% from \$116.8 million to \$141.1 million, primarily attributable to (i) increased demand for Magic Software's professional services offerings of Comblack IT Ltd and Infinigy Solutions LLC in addition to the inclusion of Infinigy, a Magic Software subsidiary, for the full year (consolidated during the second half of 2015) and (ii) consolidation for the first time of Shavit Software (2009) Ltd. (consolidated as of November 2016), Twingo Ltd., (consolidated as of August 2016) and Quickcode Ltd., (consolidated as of February 2016) offset by a continued decline in Magic Software's professional services provided to Ericsson from \$12.9 million in 2015 to \$7.6 million in 2016, due to the successful completion of number of projects at Ericsson.

***InSync:***



InSync's revenues increased by 14.7% from \$29.9 million to \$34.3 million, primarily attributable to increased demand for InSync's professional services offerings.

The increase in revenues from proprietary software products and related services was attributable to Sapiens' organic growth of approximately \$38.0 million, primarily due to implementation and professional services generated from Sapiens existing and new customers, which were offset in part, in an amount of \$4.6 million, resulting from to the devaluation of foreign currencies (in which revenues were received) relative to the U.S. dollar. The increase was furthermore due to \$3.5 million of revenues attributable to MaxPro and 4Sight results, both subsidiaries of Sapiens, which were included in our consolidated results for the first time for the year ended December 31, 2016.

A breakdown of our overall revenues into proprietary software products and related services and software services revenues for the years ended December 31, 2015 and 2016, the percentage those respective categories of revenues constituted out of our total revenues in those years, and the percentage change for each such category of revenues from 2015 to 2016, are provided in the below table:

Revenue category	Year ended December 31, 2015		Year-over Year change	Year ended December 31, 2016	
	Revenues (\$ in thousands)	Percentage		Revenues	Percentage
Proprietary software products and related services	242,818	24.95 %	12.5 %	273,235	24.65 %
Software services	730,376	75.05 %	14.4 %	835,386	75.35 %
Total	973,194	100 %	13.9 %	1,108,621	100 %

Table of Contents***Revenues by geographical region***

The dollar amount and percentage share of our revenues attributable to each of the geographical regions in which we conduct our operations for the years ended December 31, 2015 and 2016, respectively, as well as the percentage change between such years, were as follows:

	Year ended December 31,	
	2015	2016
Israel	\$570,614	\$663,341
International:		
United States	252,526	283,297
Europe	112,169	115,444
Japan	30,009	38,310
Other	7,876	8,229
Total	\$973,194	\$1,108,621

**Cost of Revenues.** Cost of revenues consists primarily of wages, personnel expenses, other personnel-related expenses of software consultants, subcontractors and engineers, amortization of capitalized software, and hardware and other materials costs. Cost of revenues increased by 14.6% from \$741.3 million in 2015 to \$849.8 million in 2016. As a percentage of total revenues, costs of revenues in 2015 and 2016 were 76.2% and 76.7%, respectively.

Our proprietary software solutions and related services sales are generally characterized by a higher gross margin than sales of our software services. The cost of revenues for proprietary software solutions and related services increased from \$131.1 million in 2015 to \$149.2 million in 2016. As a percentage of our proprietary software solutions and related services revenues, costs of revenues for proprietary software solutions and related services in 2015 and 2016 remained relatively stable at 54% in 2015 compared to 54.6% in 2016.

The cost of revenues for software services increased from \$610.1 million in 2015 to \$700.6 million in 2016. As a percentage of software services revenues, costs of revenues for software services in 2015 and 2016 remained relatively stable at 83.5% in 2015 compared to 83.9% in 2016.

The increase in our cost of revenues was primarily due to the following:

**Matrix:**

Matrix's cost of revenues increased 13.7% from \$492.8 million in 2015 to \$560.4 million in 2016. The increase in absolute cost of revenues was related to the increase in their revenues during the year ended December 31, 2016 relative to the year ended December 31, 2015. The level of Matrix's cost of revenues as a percentage of their revenues remained relatively stable in 2016 increasing from 84% in 2015 to 84.6% in 2016. The increase in Matrix's cost of revenues as a percentage of its revenues as recorded in U.S. dollars was primarily attributable to increase in employee salary rates in Israel and in the U.S.

**Sapiens:**

Sapiens' cost of revenues increased 14.8% from \$110.0 million in 2015 to \$126.3 million in 2016. The increase in absolute cost of revenues was related to the increase in its revenues during the year ended December 31, 2016 relative to the year ended December 31, 2015, including due to the inclusion of MaxPro and 4Sight, both subsidiaries of Sapiens, in our consolidated results for the first time for the year ended December 31, 2016. Certain projects in certain non-central locations that are not part of Sapiens core insurance business had a lower degree of profitability, which contributed to the slight increase in Sapiens cost of revenues as a percentage of their revenues. In addition, the appreciation of the NIS relative to the U.S. dollar increased Sapiens cost of revenues as a percentage of their revenues as recorded in U.S. dollars for the year ended December 31, 2016.

**Magic Software:**

Magic Software's cost of revenues increased 17.8% from \$113.2 million in 2015 to \$133.4 million in 2016. The increase in cost of revenues was primarily attributable to (i) the inclusion of Infinigy, a Magic Software subsidiary, for the full year (consolidated during the second half of 2015) and (ii) consolidation for the first time of Shavit Software (2009) Ltd. (consolidated as of November 2016), Twingo Ltd., (consolidated as of August 2016) and Quickcode Ltd., (consolidated as of February 2016), with the remaining increase being consistent with the increase in Magic Software's revenues from IT consulting services, though offset by continued decline in Magic's U.S. IT professional services provided to Ericsson.

**InSync:**

InSync's cost of revenues increased 18.0% from \$25.3 million in 2015 to \$29.8 million in 2016. The increase in absolute cost of revenues was related to the increase in its revenues during the year ended December 31, 2016 relative to the year ended December 31, 2015.

Cost of revenues for the years ended December 31, 2015 and 2016 include insignificant amounts of stock-based compensation.

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***Research and Development Costs, net.*** Research and development, or R&D, expenses consist primarily of wages and related expenses and, to a lesser degree, consulting fees that we pay to employees and independent contractors, respectively, engaged in research and development. Research and development expenses, net, consist of research and development expenses, gross, less capitalized software costs. Research and development expenses, gross, increased from \$25.0 million in 2015 to \$32.1 million in 2016, mainly due to our greater level of investment in research and development activities both in Magic Software and in Sapiens in support of the expansion of our offering of solutions in the year ended December 31, 2016, including due to the inclusion of MaxPro, 4Sight, both subsidiaries of Sapiens, and Roshtov, a subsidiary of Magic, in our consolidated results for the first time for the year ended December 31, 2016.

In 2016, we capitalized software costs of \$9.8 million, compared to \$9.9 million in 2015. Capitalization of software costs in 2015 and 2016 was attributable to our subsidiaries engaged in providing proprietary software solutions (i.e., Magic Software and Sapiens). Research and development expenses, net, increased from \$15.1 million in 2015 to \$22.3 million in 2016, mainly due to the factors described above.

As a percentage of revenues, research and development expenses, net, increased from 1.6% in 2015 to 2.0% in 2016. Research and development expenses for the years ended December 31, 2015 and 2016 include insignificant amounts of stock-based compensation.

***Selling, Marketing General and Administrative Expenses.*** Selling, marketing, general and administrative expenses consist primarily of cost of salaries, severance and related expenses of sales, marketing, management and administrative employees, travel expenses, selling expenses, rent, utilities, communications expenses, expenses related to external consultants, depreciation, amortization and other expenses. Selling, marketing, general and administrative expenses increased from \$140.9 million in 2015 to \$148.0 million in 2016. As a percentage of revenues, selling, marketing, general and administrative expenses decreased from 14.5% in 2015 to 13.4% in 2016.

The increase in the absolute amount of selling, general and administrative expenses was primarily attributable to increase in (1) Magic Software's general and administrative expenses increasing from \$12.1 million in 2015 to \$16.1 million in 2016, mainly attributable to (i) acquisitions of subsidiaries consolidated for the first time in 2016 and to acquisitions completed during 2015 and consolidated for the entire year for the first time in 2016 amounting to \$2.8 million; and (ii) valuation of contingent liabilities in acquired subsidiaries amounting to \$0.5 million; and (iii) an increase in headcount of general and administrative employees, and (2) Sapiens' selling, marketing general and administrative expenses increasing from \$42.6 million in 2015 to \$47.1 million in 2016, mainly attributable to a greater investment in Sapiens sales and marketing organizations team and their increased marketing expenses to support their brands and expand sales opportunities, including due to the inclusion of MaxPro and 4Sight, both subsidiaries of Sapiens in our consolidated results for the first time for the year ended December 31, 2016, which was evidenced by Sapiens 16.5% increase in their revenues in the year ended December 31, 2016.

Selling, marketing general and administrative expenses for the years ended December 31, 2015 and 2016 include \$4.2 million and \$4.3 million, respectively, of stock-based compensation expenses.

**Operating Income.** Our operating income increased from \$75.9 million in 2015 to \$88.5 million in 2016. As a percentage of revenues, our operating remained relatively stable increasing from 7.8% in 2015 to 8.0% in 2016. The increase in our operating income during the year ended December 31, 2016 relative to the year ended December 31, 2015 as an absolute amount was attributable to the various gross profit and operating expenses trends described above.

**Financial Expenses, net.** Financial expenses increased from \$15.0 million in 2015 to \$17.6 million in 2016. Financial expenses, net increased from \$9.5 million in 2015 to \$11.6 million in 2016. Financial expenses are influenced by various factors, including our cash balances, loan balances, outstanding debentures, changes in market value of trading marketable securities, changes in the exchange rate of the NIS against the dollar, changes in the exchange rate of the dollar against the Euro and changes in the Israeli consumer price index, or CPI. The increase in financial expenses in 2016 was primarily attributable to (i) increase in financial expenses recorded with respect to Formula's debentures, which were issued on September 2015, from \$0.6 million in 2015 to \$2.0 million in 2016 and (ii) increase in financial expenses recorded with respect of change in financial liabilities of put options granted to non-controlling interests from \$1.2 million in 2015 to \$2.6 million in 2016.

**Equity in gains of affiliated companies net.** Our equity in gains of affiliated companies, net increased from \$5 thousand in 2015 to \$349 thousand in 2016. Our equity in gains of affiliates in 2016 was attributable to TSG.

**Taxes on Income.** Taxes on income increased from \$16.0 million in 2015 to \$21.2 million in 2016. The increase in our expense from taxes on income was primarily attributable to (i) an increase in our taxable income in the jurisdictions in which we operate, (ii) during the year ended December 31, 2016, certain of our subsidiaries in Israel and the UK became subject to tax liability following the utilization of tax benefits in previous years and (iii) a decrease in deferred tax assets recorded mainly in Matrix and having a negative impact of \$0.9 million, resulting from a decrease in Israel's corporate income tax rate from 25% to 23% which was approved by the Israeli parliament on December 2016.

**Net income attributable to redeemable non-controlling interests.** Change in redeemable non-controlling interest in 2015 amounted to an expense of \$0.9 million. Change in redeemable non-controlling interest in 2016 amounted to an expense of \$2.1 million. Net income attributable to redeemable non-controlling interests includes the redeemable non-controlling interests held by other shareholders in our consolidated companies which are not wholly owned by Formula during each of the periods indicated to which we have granted put options to sell part or all of their capital interests in our subsidiary.

**Net income attributable to non-controlling interests.** Net income attributable to non-controlling interests includes the non-controlling interests held by other shareholders in our consolidated companies which are not wholly owned by Formula during each of the periods indicated. Net income attributable to non-controlling interests increased from

\$29.7 million in 2015 to \$31.6 million in 2016.

Table of Contents*Impact of Inflation and Currency Fluctuations on Results of Operations*

Our financial statements are stated in U.S. dollars, our functional currency. However, most of our revenues and expenses from our software services revenue line are denominated in NIS and a substantial portion of our revenues and costs from our proprietary software products and related services revenue line are incurred in other currencies, particularly NIS, Euros, Japanese yen, Indian rupee and the British pound. We also maintain substantial non-U.S. dollar balances of assets, including cash, accounts receivable, and liabilities, including accounts payable, debentures and debt to financial institutions. Therefore, fluctuations in the value of the currencies in which we do business relative to the U.S. dollar may adversely affect our business, results of operations and financial condition. For financial reporting purposes, we translate all non-U.S. dollar denominated transactions into dollars using the average exchange rate over the period during which the transactions occur, in accordance with IFRS. Therefore, we are exposed to the risk that the devaluation of the NIS relative to the U.S. dollar may reduce the revenue growth rate and profitability for our software services in dollar terms. The representative average exchange rate of the NIS to the dollar in 2016 and 2017, as reported by the Bank of Israel, was NIS 3.8406 per US\$1 and NIS 3.5998 per US\$1, respectively; consequently, this trend increased the dollar value of our revenues and profitability for our software services in 2017 relative to 2016. On the other hand, a significant portion of our revenues from proprietary software products and related services is currently mainly denominated in U.S. dollar, Euros, Japanese yen, Indian rupee and the British pound, whereas a substantial portion of our expenses relating to those products, principally salaries and related personnel expenses, are denominated in NIS. As a result, the devaluation of the Euro or those other currencies relative to the dollar (as was the case in 2015 and 2016 with respect to the Euro, in 2015 with respect to the Japanese yen, and in 2016 with respect to the British pound following Brexit) reduces the revenue growth rate and profitability for our proprietary software products and related services in dollar terms, thereby adversely affecting our operating results. Contrary to the trend involving software services, the devaluation of the NIS relative to the dollar, which occurred in 2015 (on an average basis), decreases the relative value of the NIS-denominated operating costs related to our proprietary software product revenues, and, therefore, increases our profitability and partially compensates for the negative effect that this movement has on our revenues and our profitability from our software services.

Since most of our expenses are incurred in NIS, the dollar cost of our operations also rises as a result of any increase in the rate of inflation in Israel, to the extent that such inflation is not offset, or is only offset on a lagging basis, by the devaluation (if any) of the NIS against the dollar during a relevant period of time. The Israeli rate of inflation amounted to (-1.0)%, (-0.2%) and 0.4% for the years ended December 31, 2015, 2016 and 2017, respectively. In 2015, the U.S. dollar appreciated relative to the NIS at a rate that eclipsed the Israeli rate of deflation for those years. In 2016 and 2017, the NIS appreciated relative to the U.S. dollar.

An increase in the rate of inflation in Israel may also have a material adverse effect on our financial results by increasing our operational expenses, as certain of our operating lease and rent agreements are denominated in NIS and are generally linked to the Israeli CPI, so to the extent that the Israeli CPI rises, so will our operational expenses.



Though, to date, we have not engaged in significant currency hedging transactions, we do periodically engage in certain economic hedging in order to help protect against fluctuation in foreign currency exchange rates. Instruments that we use to manage currency exchange risks may include foreign currency forward contracts. The purpose of our foreign currency hedging activities is to reduce our exposure, from the perspective of our profitability, to the risks that arise from the adverse impact that exchange rates bear on our revenues and expenses that are denominated in non-U.S. currencies. Instruments are used selectively to manage risks, but there can be no assurance that we will be fully protected against material foreign currency fluctuations. We do not use these instruments for speculative or trading purposes. In the future, we may enter into more or larger currency hedging transactions to decrease the risk of financial exposure from fluctuations in the exchange rate of the NIS, Euro, Japanese yen or British pound against the dollar, and from increases in the Israeli inflation rate. However, we cannot assure you that these measures will adequately protect us from the adverse effects of those fluctuations.

Following is a summary of the most relevant monetary indicators for the reported periods:

For the year ended December 31,	Inflation rate in Israel %	Devaluation (appreciation) of NIS against the US\$* %	Devaluation (appreciation) of Euro against the US\$* %
2015	(-1.0)	(0.3 )	(10.4 )
2016	(-0.2)	1.5 )	(3.5 )
2017	0.4	(9.8 )	13.9

\*Reflects the change in the exchange rate from January 1 to December 31 of the relevant year, rather than the difference in the average exchange rate over the course of each year relative to the previous year.

### ***Effective Corporate Tax Rates in Israel***

Tax regulations have a material impact on our business, particularly in Israel where we have the headquarters or certain of our subsidiaries and affiliate. The following summary describes the current tax structure applicable to companies in Israel, with special reference to its effect on us. The following also contains a discussion of government programs from which we, and some of our subsidiaries, benefit. To the extent that the discussion is based on tax legislation that has not been subject to judicial or administrative interpretation, there can be no assurance that the views expressed in the discussion will be accepted by the tax authorities in question.

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*Corporate Tax*

Israeli resident companies are generally subject to corporate tax on their taxable income. As of 2018, the corporate tax rate is 23% (in 2017 the corporate tax rate was 24%). However, the effective tax rate payable by a company that derives income from an AE, a BE or PFE, as further discussed below, may be considerably less. In addition, Israeli companies are generally subject to tax at the prevailing regular corporate tax rate on their capital gains.

Besides being subject to the general corporate tax rules in Israel, certain of our Israeli subsidiaries have also, from time to time, applied for and received certain grants and tax benefits from, and participate in, programs sponsored by the Government of Israel, as described below.

*Taxation of Non-Israeli Subsidiaries Held by an Israeli Parent Company*

Non-Israeli subsidiaries of an Israeli parent company are generally subject to tax in their countries of residence under tax laws applicable to them in such countries. Such subsidiaries could also be subject to Israeli corporate tax on their income if they were to be managed and controlled from Israel. In such case, double taxation could ensue unless an applicable tax treaty provides applicable rules for relief from double taxation or such relief is available under internal law.

An Israeli parent company may also be required to include in its income on a current basis, as a deemed dividend, certain income derived by its subsidiaries under the Israeli Controlled Foreign Corporation rules, or CFC, regardless of whether such income is distributed or not. Under these rules, a non-Israeli subsidiary is considered to be a CFC, if, among other things, (i) a majority of the subsidiary's means of control are held by Israeli residents, (ii) most of its revenues or income is passive (such as interest, dividends, royalties, rental income or income from capital gains) and (iii) such income is taxed at a rate that does not exceed 15%. An Israeli parent company that is subject to Israeli taxes on such deemed dividend income, may generally receive a credit for foreign taxes paid by its subsidiaries in their country of residence and for deemed foreign taxes to be withheld upon the actual distribution of such income.

*Law for the Encouragement of Industry (Taxes), 5729-1969*

The Law for the Encouragement of Industry (Taxes), 5729-1969 (the “**Industry Encouragement Law**”) provides several tax benefits for an “Industrial Company.” Pursuant to the Industry Encouragement Law, a company qualifies as an Industrial Company if it is an Israeli resident company which was incorporated in Israel and at least 90% of its

income in any tax year (other than income from certain government loans) is generated from an “Industrial Enterprise” that it owns and is located in Israel. An “Industrial Enterprise” is defined as an enterprise whose major activity, in a given tax year, is industrial production.

An Industrial Company is entitled to certain tax benefits, including:

Deduction of the cost of the purchases of patents, or the right to use a patent or know-how used for the development or promotion of the Industrial Enterprise, over an eight-year period commencing on the year in which such rights were first exercised;

The right to elect, under certain conditions, to file a consolidated tax return together with Israeli Industrial Companies controlled by it; and

Accelerated depreciation rates on equipment and buildings.

Eligibility for benefits under the Industry Encouragement Law is not subject to receipt of prior approval from any governmental authority.

We believe that certain of our Israeli subsidiaries and affiliate currently qualify as Industrial Companies within the definition under the Industry Encouragement Law. We cannot assure you that they will continue to qualify as Industrial Companies or that the benefits described above will be available in the future.

#### ***Tax Benefits under the Law for the Encouragement of Capital Investments, 5719-1959***

The Law for the Encouragement of Capital Investments, 5719-1959 (the “Investment Law”), provides certain incentives for capital investments in a production facility (or other eligible assets) by “Industrial Enterprises” (as defined under the Investment Law). Generally, an investment program that is implemented in accordance with the provisions of the Investment Law, referred to as an AE, a Beneficiary Enterprise or a PFE, is entitled to benefits as discussed below. These benefits may include cash grants from the Israeli government and tax benefits, based upon, among other things, the geographic location in Israel of the facility in which the investment is made or the election of the grantee. In order to qualify for these incentives, an AE, a Beneficiary Enterprise or a PFE is required to comply with the requirements of the Investment Law.

The Investment Law has been amended several times over the last years, with the three most significant changes effective as of April 1, 2005 (referred to as the “2005 Amendment”), as of January 1, 2011 (the “2011 Amendment”) and as of January 1, 2017 (the “2017 Amendment”). Pursuant to the 2005 Amendment, tax benefits granted in accordance with the provisions of the Investment Law prior to its revision by the 2005 Amendment remain in force but any benefits granted subsequently are subject to the provisions of the 2005 Amendment. Similarly, the 2011 Amendment introduced new benefits instead of the benefits granted in accordance with the provisions of the Investment Law in effect prior to the 2011 Amendment. However, companies entitled to benefits under the Investment Law as in effect

prior to January 1, 2011 were entitled to choose to continue to enjoy such benefits, provided that certain conditions are met, or elect instead irrevocably to forego such benefits and elect the benefits of the 2011 Amendment. The 2017 Amendment introduces new benefits for Technological Enterprises, alongside the existing tax benefits.

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*Tax Benefits for Income from AEs Approved Before April 1, 2005*

Under the Investment Law prior to the 2005 Amendment, a company that wished to receive benefits on its investment program that is implemented in accordance with the provisions of the Investment Law (referred to as an AE), had to receive an approval from the Israeli Authority for Investments and Development of the Industry and Economy (referred to as the Investment Center). Each certificate of approval for an AE relates to a specific investment program delineated by the financial scope of the investment, including sources of funds, and by the physical characteristics of the facility or other assets. The tax benefits available under any certificate of approval relate only to taxable income attributable to the specific program and are contingent upon meeting the criteria set out in the certificate of approval.

An AE may elect to forego any entitlement to the cash grants otherwise available under the Investment Law and, instead, participate in an alternative benefits program. Under the alternative benefits program, a company's undistributed income derived from an AE will be exempt from corporate tax for a period of between 2 and 10 years from the first year of taxable income, depending on the geographic location within Israel of the AE, and a reduced corporate tax rate of between 10% to 25% for the remainder of the benefits period, depending on the level of foreign investment in the company in each year, as detailed below. The benefits period under AE status is limited to 12 years from the year in which the production commenced (as determined by the Investment Center), or 14 years from the year of receipt of the approval as an AE, whichever ends earlier. If a company has more than one AE program or if only a portion of its capital investments are approved, its effective tax rate is the result of a weighted combination of the applicable rates. The tax benefits available under any certificate of approval relate only to taxable income attributable to the specific program and are contingent upon meeting the criteria set out in the certificate of approval. Income derived from activity that is not integral to the activity of the AE will not enjoy tax benefits. The entitlement to the above benefits is subject to fulfillment of certain conditions, according to the law and related regulations.

A company that has an AE program is eligible for further tax benefits, if it qualifies as a Foreign Investors' Company, or FIC. An FIC eligible for benefits is essentially a company with a level of foreign investment, as defined in the Investment Law, of more than 25%. The level of foreign investment is measured as the percentage of rights in the company (in terms of shares, rights to profits, voting and appointment of directors), and of combined share and loan capital, that are owned, directly or indirectly, by persons who are not residents of Israel. The determination as to whether or not a company qualifies as an FIC is made on an annual basis. An FIC that has an AE program will be eligible for an extension of the period during which it is entitled to tax benefits under its AE status (so that the benefits period may be up to ten years) and for further tax benefits if the level of foreign investment is 49% or more. If a company that has an AE program is a wholly owned subsidiary of another company, then the percentage of foreign investment is determined based on the percentage of foreign investment in the parent company.

The corporate tax rates and related levels of foreign investments with respect to an FIC that has an AE program are set forth in the following table:

Percentage of non-Israeli ownership	Corporate Tax Rate
Over 25% but less than 49%	Up to 25 %
49% or more but less than 74%	20 %
74% or more but less than 90%	15 %
90% or more	10 %

A company that has elected to participate in the alternative benefits program and that subsequently pays a dividend out of the income derived from the portion of its facilities that have been granted AE status during the tax exemption period will be subject to corporate tax in respect of the amount of dividend distributed (grossed up to reflect such pre-tax income that it would have had to earn in order to distribute the dividend) at the corporate tax rate that would have been otherwise applicable if such income had not been tax-exempted under the alternative benefits program. This rate generally ranges from 10% to 25%, depending on the level of foreign investment in the company in each year, as explained above.

In addition, dividends paid out of income attributed to an AE (or out of dividends received from a company whose income is attributed to an AE) are generally subject to withholding tax at source at the rate of 15%, or at a lower rate as may be provided under an applicable tax treaty (subject to the receipt in advance of a valid certificate from the Israel Tax Authority allowing for a reduced tax rate). The 15% tax rate is limited to dividends and distributions out of income derived during the benefits period and actually paid at any time up to 12 years thereafter. After this period, the withholding tax is applied at a rate of up to 30%, or at a lower rate under an applicable tax treaty (subject to the receipt in advance of a valid certificate from the Israel Tax Authority allowing for a reduced tax rate). In the case of an FIC, the 12-year limitation on reduced withholding tax on dividends does not apply.

The Investment Law also provides that an AE is entitled to accelerated depreciation on its property and equipment that are included in an AE program during the first five years in which the equipment is used. This benefit is an incentive granted by the Israeli government regardless of whether the alternative benefits program is elected.

The benefits available to an AE are subject to the continued fulfillment of conditions stipulated in the Investment Law and its regulations and the criteria in the specific certificate of approval with respect thereto, as described above. If a company does not meet these conditions, it would be required to refund the amount of tax benefits, adjusted to the Israeli consumer price index and interest or other monetary penalty.

Under the terms of the AE program, income that is attributable to one of Sapiens' Israeli subsidiaries has been exempted from income tax for a period of two years commencing in 2014.

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*Tax benefits under the 2005 Amendment that became effective on April 1, 2005.*

The 2005 Amendment applies to new investment programs commencing after 2004, and does not apply to investment programs approved prior to April 1, 2005. The 2005 Amendment provides that terms and benefits included in any certificate of approval that was granted before the 2005 Amendment became effective (April 1, 2005) will remain subject to the provisions of the Investment Law as in effect on the date of such approval. Pursuant to the 2005 Amendment, the Investment Center will continue to grant AE status to qualifying investments. The 2005 Amendment, however, limits the scope of enterprises that may be approved by the Investment Center by setting criteria for the approval of a facility as an AE.

An enterprise that qualifies under the new provisions is referred to as a Beneficiary Enterprise, rather than AE. The 2005 Amendment provides that a certificate of approval from the Investment Center is required only for AEs that receive cash grants. As a result, a company is no longer required to obtain the advance approval of the Investment Center in order to receive the tax benefits previously available under the alternative benefits program. Rather, a company may claim the tax benefits offered by the Investment Law directly in its tax returns, provided that its facilities meet the criteria for tax benefits set forth in the 2005 Amendment. A company that has a Beneficiary Enterprise may, at its discretion, approach the Israel Tax Authority for a pre-ruling confirming that it is in compliance with the provisions of the Investment Law.

Tax benefits are available under the 2005 Amendment to production facilities (or other eligible facilities), which are generally required to derive more than 25% of their business income from export to specific markets with a population of at least 14 million in 2012 (such export criteria will further be increased in the future by 1.4% per annum). In order to receive the tax benefits, the 2005 Amendment states that a company must make an investment which meets certain conditions set forth in the amendment for tax benefits and which exceeds a minimum investment amount specified in the Investment Law. Such investment entitles a company to receive a Beneficiary Enterprise status with respect to the investment, and may be made over a period of no more than three years from the end of the year in which the company chose to have the tax benefits apply to its Beneficiary Enterprise. Where a company requests to have the tax benefits apply to an expansion of existing facilities, only the expansion will be considered to be a Beneficiary Enterprise, and the company's effective tax rate will be the weighted average of the applicable rates. In such case, the minimum investment required in order to qualify as a Beneficiary Enterprise must exceed a certain percentage of the value of the company's production assets before the expansion.

The extent of the tax benefits available under the 2005 Amendment to qualifying income of a Beneficiary Enterprise depends on, among other things, the geographic location in Israel of the Beneficiary Enterprise. The location will also determine the period for which tax benefits are available. Such tax benefits include an exemption from corporate tax on undistributed income generated by the Beneficiary Enterprise for a period of between two to ten years, depending on the geographic location of the Beneficiary Enterprise in Israel, and a reduced corporate tax rate of between 10% to 25% for the remainder of the benefits period, depending on the level of foreign investment in the company in each year, as explained above. The benefits period is limited to 12 or 14 years from the year the company first chose to

have the tax benefits apply, depending on the location of the company.

A company qualifying for tax benefits under the 2005 Amendment which pays a dividend out of income derived by its BE during the tax exemption period will be subject to corporate tax in respect of the amount of the dividend distributed (grossed-up to reflect the pre-tax income that it would have had to earn in order to distribute the dividend) at the corporate tax rate which would have otherwise been applicable. Dividends paid out of income attributed to a BE (or out of dividends received from a company whose income is attributed to a BE) are generally subject to withholding tax at source at the rate of 15% or at a lower rate as may be provided in an applicable tax treaty (subject to the receipt in advance of a valid certificate from the Israel Tax Authority allowing for a reduced tax rate). The reduced rate of 15% is limited to dividends and distributions out of income attributed to a Beneficiary Enterprise during the benefits period and actually paid at any time up to 12 years thereafter except with respect to an FIC, in which case the 12-year limit does not apply.

The benefits available to a BE are subject to the continued fulfillment of conditions stipulated in the Investment Law and its regulations. If a company does not meet these conditions, it would be required to refund the amount of tax benefits, as adjusted by the Israeli consumer price index and interest, or other monetary penalties.

*Tax benefits under the 2011 Amendment that became effective on January 1, 2011.*

The 2011 Amendment canceled the availability of the benefits granted to companies in accordance with the provisions of the Investment Law prior to 2011 and, instead, introduced new benefits for income generated by a “Preferred Company” through its PFE (as such terms are defined in the Investment Law) as of January 1, 2011. A Preferred Company is defined as either (i) a company incorporated in Israel which is not wholly owned by a governmental entity or (ii) a limited partnership that (a) was registered under the Israeli Partnerships Ordinance and (b) all of its limited partners are companies incorporated in Israel, but not all of them are governmental entities; which has, among other things, PFE status and is controlled and managed from Israel. Pursuant to the 2011 Amendment, a Preferred Company was entitled to a reduced corporate tax rate of 15% with respect to its preferred income attributed to its PFE in 2011 and 2012, unless the PFE was located in a certain development zone, in which case the rate was 10%. Such corporate tax rates were reduced to 12.5% and 7%, respectively, in 2013 and were increased to 16% and 9%, respectively, in 2014 until 2016. Pursuant to the 2017 Amendment, in 2017 and thereafter, the corporate tax rate for a PFE that is located in a specified development zone was decreased to 7.5%, while the reduced corporate tax rate for other development zones remains 16%. Income derived by a Preferred Company from a ‘Special PFE’ (as such term is defined in the Investment Law) would be entitled, during a benefits period of 10 years, to further reduced tax rates of 8%, or 5% if the Special PFE is located in a certain development zone. As of January 1, 2017, the definition for ‘Special PFE’ includes less stringent conditions.



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Dividends paid out of preferred income attributed to a PFE or to a Special PFE are generally subject to withholding tax at source at the rate of 20% or such lower rate as may be provided in an applicable tax treaty (subject to the receipt in advance of a valid certificate from the Israel Tax Authority allowing for a reduced tax rate). However, if such dividends are paid to an Israeli company, no tax is required to be withheld (although, if such dividends are subsequently distributed to individuals or a non-Israeli company, withholding tax at a rate of 20% or such lower rate as may be provided in an applicable tax treaty will apply).

The 2011 Amendment also provided transitional provisions to address companies already enjoying existing tax benefits under the Investment Law. These transitional provisions provide, among other things, that unless an irrevocable request is made to apply the provisions of the Investment Law as amended in 2011 with respect to income to be derived as of January 1, 2011: (i) the terms and benefits included in any certificate of approval that was granted to an AE, which chose to receive grants, before the 2011 Amendment became effective, will remain subject to the provisions of the Investment Law as in effect on the date of such approval, and subject to certain conditions; (ii) the terms and benefits included in any certificate of approval that was granted to an AE, that had participated in an alternative benefits program, before the 2011 Amendment became effective, will remain subject to the provisions of the Investment Law as in effect on the date of such approval, provided that certain conditions are met ; and (iii) a Beneficiary Enterprise can elect to continue to benefit from the benefits provided to it before the 2011 Amendment came into effect, provided that certain conditions are met. As of December 31, 2014 and 2015, some of our Israeli subsidiaries had filed a request to apply the new benefits under the 2011 Amendment.

*New Tax benefits under the 2017 Amendment that became effective on January 1, 2017*

The 2017 Amendment was enacted as part of the Economic Efficiency Law that was published on December 29, 2016, and is effective as of January 1, 2017. The 2017 Amendment provides new tax benefits for two types of “Technology Enterprises”, as described below, and is in addition to the other existing tax beneficial programs under the Investment Law.

The 2017 Amendment provides that a technology company satisfying certain conditions will qualify as a “Preferred Technology Enterprise” and will thereby enjoy a reduced corporate tax rate of 12% on income that qualifies as “Preferred Technology Income”, as defined in the Investment Law. The tax rate is further reduced to 7.5% for a Preferred Technology Enterprise located in development zone A. These corporate tax rates shall only apply with respect to the portion of intellectual property developed in Israel. In addition, a Preferred Technology Company will enjoy a reduced corporate tax rate of 12% on capital gain derived from the sale of certain “Benefited Intangible Assets” (as defined in the Investment Law) to a related foreign company if the Benefited Intangible Assets were acquired from a foreign company on or after January 1, 2017 for at least NIS 200 million, and the sale receives prior approval from the National Authority for Technological Innovation (referred to as NATI).

The 2017 Amendment further provides that a technology company satisfying certain conditions will qualify as a “Special Preferred Technology Enterprise” and will thereby benefit from a reduced corporate tax rate of 6% on “Preferred Technology Income” regardless of the company’s geographic location within Israel. In addition, a Special Preferred Technology Enterprise will benefit from a reduced corporate tax rate of 6% on capital gain derived from the sale of certain “Benefited Intangible Assets” to a related foreign company if the Benefited Intangible Assets were either developed by an Israeli company or acquired from a foreign company on or after January 1, 2017, and the sale received prior approval from NATI. A Special Preferred Technology Enterprise that acquires Benefited Intangible Assets from a foreign company for more than NIS 500 million will be eligible for these benefits for at least ten years, subject to certain approvals as specified in the Investment Law.

Dividends distributed by a Preferred Technology Enterprise or a Special Preferred Technology Enterprise, paid out of Preferred Technology Income, are generally subject to withholding tax at source at the rate of 20%, or such lower rate as may be provided in an applicable tax treaty (subject to the receipt in advance of a valid certificate from the Israel Tax Authority allowing for a reduced tax rate). However, if such dividends are paid to an Israeli company, no tax is required to be withheld. If such dividends are, distributed to a foreign parent company holding at least 90% of the shares of the distributing company and other conditions are met, the withholding tax rate will be 4%.

We are examining the impact of the 2017 Amendment and the degree to which our Israeli subsidiaries and affiliate will qualify as a Preferred Technology Enterprise or Special Preferred Technology Enterprise, and the amount of Preferred Technology Income that our subsidiaries and affiliate may have, or other benefits that our subsidiaries and affiliate may receive, from the 2017 Amendment.

#### *Tax Benefits for Research and Development*

Israeli tax law allows, under certain conditions, a tax deduction for research and development expenditures, including capital expenditures, for the year in which they are incurred. Such expenditures must relate to scientific research and development projects, and must be approved by the relevant Israeli government ministry, determined by the field of research. Furthermore, the research and development must be for the promotion of the company’s business and carried out by or on behalf of the company seeking such tax deduction. However, the amount of such deductible expenses is reduced by the sum of any funds received through government grants for the finance of such scientific research and development projects. Expenditures not so approved by the relevant Israeli government ministry, but otherwise qualifying for deduction, are deductible over a three-year period, from the first year that the expenditures were incurred. However, the amounts of any government grants made available are subtracted from the amount of the expenses that may be deducted.

#### **B. Liquidity and Capital Resources**

Since inception, we have financed our growth and business primarily through cash provided by operations and through public debt and equity offerings, as well as through private and public debt and equity offerings of our subsidiaries. In addition, we finance our business operations through short-term and long-term loans and borrowings

available under our credit facilities.

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*Current Outlook*

We had cash and cash equivalents and short-term investments of \$275.7 million and \$260.8 million at December 31, 2016 and December 31, 2017, respectively. At December 31, 2016 and December 31, 2017, we had indebtedness to banks and others of \$259.0 million and \$345.0 million, respectively, of which \$88.0 million and \$75.6 million were current liabilities and \$171.0 million and \$269.4 million were long-term liabilities as of those respective dates. In addition, as of December 31, 2017, Formula had indebtedness of \$38.9 million outstanding to an Israeli institutional investor and \$59.5 million under our secured debentures and convertible debentures which we sold in a public offering in Israel in September 2015, as described below.

We had cash and cash equivalents that were held outside of Israel and that would have been subject to income taxes if distributed as a dividend as of December 31, 2016 and 2017 in amounts of \$62.0 million and \$48.6 million, respectively.

*Sources of Financing*

*Institutional Investor Loan*

In January 2014, Formula received a NIS 200 million loan (approximately \$57.6 million) from a leading Israeli institutional investor. The loan is secured by certain of the shares of each of our publicly held subsidiary and affiliated companies. The loan's average duration from inception is approximately four years (paid over a period of six years, with the first payment made in January 2016) and carries a fixed annual interest rate of 5.5%.

Under the terms of the loan with the Israeli institutional investor, Formula has undertaken to maintain the following financial covenants, as they will be expressed in its financial statements, as described:

1. Formula's equity shall not be lower than \$160 million at all times.
2. The ratio of Formula's equity to total assets will not be less than 20%.
3. The ratio of Formula's total financial debts less cash, short-term deposits and short-term marketable securities to the annual EBITDA will not exceed 3.5 to 1.
4. The ratio of Formula's total financial debts less cash, short-term deposits and short-term marketable securities to the total assets will not exceed 30%.
- 5.

Formula's liabilities to banks and other financial institutions in its standalone balance sheet shall not be higher than NIS 450 million (approximately \$115.7 million).

Formula will not create any pledge on all or part of its property and assets in favor of any third party and will not provide any guarantee to secure any third party's debts as they are today and as they will be without the financial institution's consent.

Formula will not sell and/or transfer all or part of its assets to others in any manner whatsoever without the financial institution's advance written consent, unless it is done in the ordinary course of business.

### *Israeli Debenture Offerings*

In September 2015, Formula consummated a public offering of debentures in Israel. The two series of debentures issued by Formula in the public offering consisted of one series of debentures (the "Series A Secured Debentures") that is secured by liens on the shares of Formula's subsidiaries (Matrix, Sapiens and Magic Software), and a second series (the "Series B Convertible Debentures," and, together with the Secured Debentures, the "Debentures") that is convertible into ordinary shares of Formula. The Debentures are listed for trading only on the TASE.

In the public offering, Formula issued and sold a total amount of NIS 227,260,000 (\$57.8 million) par value of the Debentures, which were subdivided into the following respective amounts of Series A Secured Debentures and Series B Convertible Debentures that are subject to the following terms:

NIS 102,260,000 (\$26.1 million) par value of Series A Secured Debentures were sold which bear interest on the unpaid principal at a fixed annual rate equal to 2.8% (which may vary based on the credit rating of the debentures), which is paid on a semi-annual basis through July 2024. The principal is payable in eight equal annual installments beginning in July 2017 and ending in July 2024. The interest rate varies based on the credit rating of the Series A Secured Debentures. The net proceeds received by Formula from the issuance of the Series A Secured Debentures in September 2015 amounted to \$25.9 million (net of issuance expenses).

NIS 125,000,000 (\$31.2 million) par value of Series B Convertible Debentures were sold at a price per debenture unit (each unit comprised of NIS 1,000 par value of debentures) of NIS 1,020. The Series B Convertible Debentures bear interest at a fixed annual rate equal to 2.74% (which may vary based on the credit rating of the debentures), payable in one payment upon maturity of the Series B Convertible Debentures on March 26, 2019 (at which time the accrued interest will constitute 10% of the principal amount of the Convertible Debentures, in the aggregate). The Series B Convertible Debentures are subject to conversion into Formula's ordinary shares at a rate of NIS 157 (\$40.03) par value of Series B Convertible Debentures per one share. The conversion rate is subject to adjustment for the issuance of bonus shares, rights and dividends. The principal amount of and interest on the Series B Convertible Debentures is subject to adjustment based on changes in the exchange rate between the NIS and the U.S. dollar relative to the exchange rate on September 8, 2015. The net proceeds received by Formula from the issuance of Series B Convertible Debentures amounted to \$32.1 million (net of issuance expenses).

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The gross proceeds received by Formula from the issuance of all Debentures in September 2015 were approximately NIS 229.8 million (\$58.6 million), in the aggregate.

On January 31, 2018, Formula consummated a private placement to qualified investors in Israel, of an additional, aggregate NIS 150 million par value of Series A Secured Debentures at a price of NIS 1,034.7 for each NIS 1,000 principal amount. The aggregate gross proceeds totaled NIS 155.2 million (approximately \$45.6 million), excluding issuance costs of \$0.2 million. As a result of the private placement, the total outstanding principal amount of the Series A Secured Debentures increased to approximately NIS 239.5 million (approximately \$69.1 million). The terms of the Series A Secured Debentures sold in the private placement are identical in all respects to those of the Series A Secured Debentures sold in Formula's September 2015 public offering.

The Series A Secured Debentures and Series B Convertible Debentures contain, in addition to standard terms and obligations, the following obligations on our part:

a negative pledge, subject to certain exceptions;

a covenant not to distribute dividends unless: (i) shareholders equity (not including minority interests) shall not be less than \$250 million, (ii) Formula's net financial indebtedness (financial indebtedness net of cash, marketable securities, deposits and other liquid financial instruments) shall not exceed 65% of net CAP (which is defined as financial indebtedness, net, plus shareholders equity), (iii) the amount of the distributions shall be equal to profits for the years ended December 31, 2014 and 2015 and 75% of profits accrued from January 1, 2016 until the distribution and (iv) no event of default shall have occurred.; and

Financial covenants, including: (i) the equity attributable to the shareholders of Formula, as reported in Formula's annual or quarterly financial statements, will not be less than \$160 million, (ii) Formula's net financial indebtedness (financial indebtedness net of cash, marketable securities, deposits and other liquid financial instruments) shall not exceed 65% of net CAP (which is defined as financial indebtedness, net, plus shareholders equity) and (iii) at all times, Formula's cash balance will not be less than the annual interest payment (compounded) for the unpaid principal amount of the Series B Convertible Debentures.

We have agreed to standard events of default under the Debentures, together with the following additional events of default due to any of the following:

cross default, excluding following an immediate repayment initiated in relation to the other series of Debentures or other indebtedness (other than non-recourse debt) over NIS 75 million (\$21.6 million);

suspension of trading of the Debentures on the TASE over a period of 60 days;

failure to have the Debentures rated over a period of 60 days;

if the rating of the Debentures is less than BBB- by Standard and Poors Maalot or equivalent rating of other rating agencies;

if there is a change in control without consent of the rating agency;

if Formula fails to provide additional security when the loan-to-value of the securities securing the Series A Secured Debentures falls below the required ratio;  
the existence of a real concern that Formula will not meet its material undertakings towards the Debenture holders;  
the inclusion in Formula's financial statements of a note regarding the existence of significant doubt as to Formula's ability to continue as a going concern;  
breach of Formula's undertakings regarding the issuance of additional Debentures;  
Formula's failure to continue to control any of its subsidiaries; and  
failure to comply with the negative pledge covenant.

#### *Subsidiary and Affiliate Financing Activities*

From time to time, our subsidiaries and affiliated companies also maintain credit facilities with banks and issue debt instruments such as debentures in accordance with their cash requirements. These credit facilities and debentures include, inter alia, certain standard events of defaults related to our subsidiaries' operations, which restrict their ability to: (i) undergo a change of control, (ii) distribute dividends, (iii) incur debt or apply a floating charge on their assets, or (iv) undergo an asset sale or other change that would result in a fundamental change in their operations. The subsidiaries' and affiliated companies' indebtedness also requires that they comply with certain financial covenants, including maintenance of certain financial ratios related to their 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 their comparable size and the risk. Some of our subsidiaries' assets are pledged to the lender banks and debenture holders. If we or any of our subsidiaries do not meet the covenants specified in our credit agreements or indentures (or equivalent agreement with the debenture holders), and a waiver with respect to the fulfillment of such covenants has not been received from the lender bank or representative of the debenture holders, the lender bank or debenture holders (via the action of their representative) may foreclose on the pledged assets to satisfy a debt.

Currently, Matrix, Sapiens, Magic Software and Formula have such material credit facilities and/or debentures outstanding. The long-term debt obligations of Matrix bear fixed interest at an average annual rate of 2.50%-5.81%. The long-term debt obligations of Magic Software bear fixed interest at an annual rate of 2.60%-5.0%. The long-term debt obligations of Sapiens bear fixed interest at an annual rate of 3.7%. These credit facilities and/or debentures expire over a period of time that ranges from 1 to 9 years.

As of December 31, 2017, Matrix had aggregate short-term obligations to banks and others of NIS 164.5 million (approximately \$47.5 million) and aggregate long-term obligations to banks of NIS 285.1 million (approximately \$82.2 million) under its credit facilities. As of December 31, 2017, Magic Software had aggregate short-term obligations to banks and others of \$9.8 million and aggregate long-term obligations to banks and others of \$27.8 million under its credit facilities.

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In November 2016, Magic Software obtained a NIS 120 million (approximately \$31.4 million) loan linked to the NIS from an Israeli institution. Magic Software intended to use the proceeds from this loan for its general corporate purposes, which may include the funding of its working capital needs and the funding of potential acquisitions. The principal amount of the loan is payable in seven equal annual payments with the final payment due on November 2, 2023 and bears a fixed interest rate of 2.60% per annum, payable in two semi-annually payments. The loan, which may be prepaid under certain circumstances, is subject to various financial covenants, which mainly consist of the following:

1. Magic Software equity will not be lower than \$100 million (one hundred million U.S. dollars) at all times.
2. Magic Software cash and cash equivalent and marketable securities available for sales will not be less than \$10 million (ten million U.S. dollars).
3. The ratio of Magic Software total financial debts to total assets will not exceed 50%.
4. The ratio of Magic Software total financial debts less cash, short-term deposits and short-term marketable securities to the annual EBITDA will not exceed 3.25 to 1.
5. Magic Software will not create any pledge on all of its property and assets in favor of any third party without the financial institution's consent

In September 2017, Sapiens issued NIS 280 million (approximately \$78.2 million, net of \$0.96 million of debt discount and issuance costs) principal amount of Series B unsecured, non-convertible debentures, in a public offering and private placement in Israel. Proceeds of such offering were utilized to repay the entire outstanding loan amount (including accrued interest) under a \$40 million credit agreement to which Sapiens had been party with HSBC Bank USA, National Association as financing for Sapiens' acquisition of StoneRiver. The outstanding principal amount of the Sapiens Series B debentures is linked to the US dollar and bears interest at an annual rate of 3.37%, to be paid on a semi-annual basis (on January 1 and July 1 of 2018 through 2025, with one final interest payment on January 1, 2026). The principal of the Sapiens Series B debentures is payable in eight equal annual payments beginning on January 1, 2019, with the final payment due on January 1, 2026.

In the deed of trust entered into by Sapiens with the trustee for the holders of its Series B debentures, Sapiens undertook to maintain a number of conditions and limitations on the manner in which it can operate its business, including limitations on its ability to undergo a change of control, distribute dividends, incur a floating charge on its assets, or undergo an asset sale or other change that results in a fundamental change in its operations. The deed of trust also requires Sapiens to comply with certain financial covenants. The deed of trust furthermore provides for an upwards adjustment in the interest rate payable under the debentures in the event that the 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 the debentures (below BBB-) could result in the acceleration of Sapiens' obligation to repay the debentures.

We believe that our current cash reserves, together with cash that may be distributed to us from the ongoing operations of our subsidiaries and any credit that we may choose to draw upon that is available under our (and our subsidiaries' and affiliated company's) existing credit facilities should be sufficient for our present working capital



requirements for at least the next 12 months at our current level of operations. We will consider in the future additional equity issuances, debt issuances or borrowings from banks if necessary to meet cash needs for our growth, including if needed to consummate one or more acquisitions for consideration consisting of all or a substantial portion of our available cash. Should we require additional financing in the future, we cannot assure you that such financing will be available on favorable terms or at all.

On January 24, 2018, Formula publicized rating reports published by Standard & Poor's, Maalot Ltd. ("S&P Maalot") and Midroog Ltd., a subsidiary of Moody's ("Midroog"), with respect to Formula and its two outstanding series of Debentures. In those reports, S&P Maalot, which had previously rated the Company and its two series of Debentures, assigned an updated rating of ilA+ for both series of Debentures and an updated rating of ilA+/stable for the Company. Midroog, which was rating the Company's Debentures for the first time, assigned a rating of A1.il for both series of Debentures.

On March 19, 2018, S&P Maalot issued a report in which it upgraded the credit rating for the Series A Secured Debentures of Formula to ilAA- (from ilA+). The upgrade was made by S&P Maalot following the implementation for the first time of recovery rating criteria for speculative grade corporate issuers. The valuation methodology employed by S&P Maalot analyzes, among other things, the likely percentage of indebtedness to be repaid to the debenture holders from the assets serving as security in the event of a hypothetical failure by the Company to make payment on the debentures. S&P Maalot has also reaffirmed the credit rating of Formula's Series B Convertible Debentures, which remains unchanged at ilA+, identical to the rating assigned to Formula itself.

As of the date of the financial statements, Formula, Sapiens, Magic Software and Matrix were in compliance with each of their respective financial covenants.

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*Cash Provided by Operating Activities*

Cash flow provided by our operating activities increased from \$75.0 million in 2016 to \$81.0 million in 2017.

Net cash provided by operating activities in 2017 consisted primarily of the cash generated by our subsidiaries' ongoing operating activities and of net income stemming therefrom, as adjusted for non-cash activity, including changes in operating assets and liabilities. The material upwards adjustments in cash flow reflecting non-cash activity included adjustments due to (i) depreciation and amortization of capitalized research and development assets, other intangible assets (mainly customer relations) and property, plants and equipment, in an aggregate amount of \$43.6 million, (ii) an increase in deferred revenues, in an amount of \$15.7 million, (iii) an increase in trade payables and in other accounts payable and employees and payroll accrual, in an aggregate amount of \$13.3 million, (iii) stock-based compensation expenses, in an amount of \$4.6 million, (iv) changes in value of short-term and long term loans from banks and others and deposits in an amount of \$6.7 million, (v) change in value of debentures of \$5.3 million, (vi) an increase in liabilities in respect of business combinations, in an aggregate amount of \$1.5 million and (vii) a decrease in inventory of \$1.0 million. Material downwards adjustments in cash flow for non-cash activity, including changes in operating assets and liabilities, consisted of adjustments of (i) an increase in trade receivables in an amount of \$38.2 million, (ii) change in deferred taxes net in an amount of \$12.8 million and (iii) equity in gains of companies accounted for at equity in an amount of \$1.1 million.

Cash flow provided by operating activities in 2017 was primarily comprised of \$50.2 million provided by Matrix, \$8.5 million provided by Sapiens, \$25.5 million provided by Magic and approximately \$2.8 million provided by Insync and Michpal, offset by \$6.0 million used by Formula.

Net cash provided by operating activities in 2016 consisted primarily of the cash generated by our subsidiaries' ongoing operating activities and of net income stemming therefrom, as adjusted for non-cash activity, including changes in operating assets and liabilities. The material upwards adjustments in cash flow reflecting non-cash activity included adjustments due to (i) depreciation and amortization of capitalized research and development assets, other intangible assets (mainly customer relations) and property, plants and equipment, in an aggregate amount of \$32.4 million, (ii) stock-based compensation expenses, in an amount of \$4.4 million, (iii) an increase in trade payables and in other accounts payable and employees and payroll accrual, in an aggregate amount of \$14.1 million, (iv) an increase in redeemable non-controlling interests' put option and in liabilities in respect of business combinations, in an aggregate amount of \$3.8 million, and (v) decrease in inventory of \$0.9 million, (vi) change in value of debentures of \$1.4 million and (vii) changes in value of short-term and long term loans from banks and others and deposits in an amount of \$0.5 million. Material downwards adjustments in cash flow for non-cash activity, including changes in operating assets and liabilities, consisted of adjustments of (i) an increase in trade receivables in an amount of \$30.1 million, (ii) a decrease in deferred revenues, in an amount of \$2.7 million, (iii) gain from sale of property, plants and equipment in an amount of \$3.1 million, (iv) decrease in employee benefit liabilities in an amount of \$1.7 million and (v) Increase in other current and long-term accounts receivable of \$0.5 million.

Cash flow provided by operating activities in 2016 was primarily comprised of \$29.8 million provided by Matrix, \$26.0 million provided by Sapiens, and \$28.0 million provided by Magic, offset by \$5.4 million used by Formula and approximately \$3.4 million used by Insync.

*Cash provided by (used in) Financing Activities*

Cash provided by financing activities of \$16.4 million in 2017 compared to cash used in financing activities of \$7.0 million in 2016, mainly reflecting the cumulative effect of the following financing-related transactions that occurred over the course of those years:

*Year Ended December 31, 2017*

In December 2016, Formula declared a cash dividend to its shareholders, to be paid in January 2017, of \$0.48 per share. The aggregate amount distributed by Formula was approximately \$7.1 million.

In September 2017, Formula declared a cash dividend to its shareholders, to be paid in November 2017, of \$0.34 per share. The aggregate amount distributed by Formula was approximately \$5.0 million.

In March 2017, Matrix distributed to its shareholders a cash dividend in an aggregate amount of approximately \$6.7 million, of which \$3.4 million was paid to non-controlling interests in Matrix.

In June 2017, Matrix distributed to its shareholders a cash dividend in an aggregate amount of approximately \$5.9 million, of which \$3.0 million was paid to non-controlling interests in Matrix.

In September 2017, Matrix distributed to its shareholders a cash dividend in an aggregate amount of approximately \$4.9 million, of which \$2.5 million was paid to non-controlling interests in Matrix.

In December 2017, Matrix distributed to its shareholders a cash dividend in an aggregate amount of approximately \$7.0 million, of which \$3.5 million was paid to non-controlling interests in Matrix.

In December 2017, Sapiens distributed to its shareholders a cash dividend in the aggregate amount of \$0.20 per common shares. The aggregate amount distributed by Sapiens was approximately \$9.9 million, of which \$5.1 million was paid to non-controlling interests in Sapiens.

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In February 2017, Magic Software declared a cash dividend in an amount of \$0.085 per share that was paid on April 5, 2017. The aggregate amount distributed by Magic Software was approximately \$3.8 million, of which \$2.0 million was paid to non-controlling interests in Magic Software.

In August 2017, Magic Software declared a cash dividend in an amount of \$0.13 per share that was paid on September 13, 2017. The aggregate amount distributed by Magic Software was approximately \$5.8 million, of which \$3.1 million was paid to non-controlling interests in Magic Software.

In addition, net cash provided by in financing activities in 2017 was attributable to (i) the issuance of Sapiens Series B debentures in the net amount of \$78.2 million, (ii) receipt of long term loans in an amount of \$52.7 million and (iii) exercise of employees' stock options in subsidiaries in an amount of \$3.2 million, offset by (i) repayment of long term loans from banks and others in an amount of \$46.1 million, (ii) a decrease in short-term bank credit, net in an amount of \$21.2 million, (iii) dividends paid to redeemable non-controlling interests in subsidiaries in an amount of \$7.5 million, (iv) repayment of debentures in an amount of \$3.7 million and (v) cash paid in conjunction with acquisition of activities in an amount of \$2.6 million.

*Year Ended December 31, 2016*

In June 2016, Formula declared a cash dividend to its shareholders, to be paid in July 2016, of \$0.34 per share. The aggregate amount distributed by Formula was approximately \$5.0 million.

In January 2016, Formula declared a cash dividend to its shareholders, to be paid in February 2016, of \$0.34 per share. The aggregate amount distributed by Formula was approximately \$5.0 million.

In March 2016, Matrix distributed to its shareholders a cash dividend in an aggregate amount of approximately \$6.4 million, of which \$3.2 million was paid to non-controlling interests in Matrix.

In June 2016, Matrix distributed to its shareholders a cash dividend in an aggregate amount of approximately \$6.0 million, of which \$3.0 million was paid to non-controlling interests in Matrix.

In September 2016, Matrix distributed to its shareholders a cash dividend in an aggregate amount of approximately \$7.8 million, of which \$3.9 million was paid to non-controlling interests in Matrix.

In December 2016, Matrix distributed to its shareholders a cash dividend in an aggregate amount of approximately \$5.9 million, of which \$3.0 million was paid to non-controlling interests in Matrix.

In June 2016, Sapiens distributed to its shareholders a cash dividend in an aggregate amount of \$0.20 per common shares. The aggregate amount distributed by Sapiens was approximately \$10.0 million.

In February 2016, Magic Software declared a cash dividend in an amount of \$0.09 per share that was paid on March 17, 2016. The aggregate amount distributed by Magic Software was approximately \$4.0 million.

In August 2016, Magic Software declared a cash dividend in an amount of \$0.085 per share that was paid on September 22, 2016. The aggregate amount distributed by Magic Software was approximately \$3.8 million.

In addition, net cash used in financing activities in 2016 was attributable to (i) repayment of long term loans from banks and others in an amount of \$37.4 million, (ii) purchase of non-controlling interests and redeemable non-controlling interests in an amount of \$3.2 million (iii) cash paid in conjunction with acquisition of activities in an amount of \$1.2 million and (iv) distribution of \$1.4 million to our ultimate parent company for a business acquisition under common control (that is, for the acquisition of Insseco), offset by (i) receipt of long term loans in an amount of \$49.6 million (ii) exercise of employees stock options in subsidiaries in an amount of \$0.9 million and (iii) an increase in short-term bank credit, net in an amount of \$20.7 million.

#### *Cash Used in Investing Activities*

Net cash used in our investing activities was \$102.5 million in 2017 compared to \$78.9 million in 2016. Net cash used in investing activities in 2017 was attributable to (i) expenditure (net of cash acquired) with respect to business acquisitions in an amount of \$119.1 million, (ii) purchase of property and equipment in an amount of \$9.6 million, (iii) capitalization of software development and other cost in an amount of \$9.3 million, (iv) payments to former shareholders of consolidated companies in an amount of \$6.2 million and (v) changes in short term deposits, net in an amount of \$0.9 million, offset by (i) proceeds from sale of marketable securities, net in an amount of \$40.6 million and (ii) change in restricted cash and other accounts receivable in an amount of \$2.0 million.

Net cash used in our investing activities in was \$78.9 million in 2016. Net cash used in investing activities in 2016 as attributable to (i) expenditure (net of cash acquired) with respect to business acquisitions in an amount of \$44.8

million, (ii) purchase of property and equipment in an amount of \$9.1 million, (iii) Investment in and loans to affiliates and other companies \$25.8 million, (iv) capitalization of software development and other cost in an amount of \$9.8 million, (v) increase in restricted cash in other accounts receivable in an amount of \$0.5 million and (vi) payments to former shareholders of consolidated companies in an amount of \$1.8 million, offset by (i) proceeds from sale of marketable securities, net in an amount of \$8.5 million and (ii) proceeds from sale of property, plants and equipment in an amount of \$2.3 million and (iii) changes in short term deposits, net in an amount of \$2.7 million.

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*Company Commitments*

In January 2014, Formula agreed to the terms of a NIS 200 million loan (approximately \$57.6 million) that was extended to us by a leading Israeli institutional investor. The loan is secured by certain of the shares of each of our publicly held subsidiaries and affiliated company. The loan's average duration is approximately four years (paid over a period of 6 years) and carries a fixed annual interest rate of 5.5%. The terms of the loan are further described above under "Sources of Financing— Institutional Investor Loan" in this Item 5.B ("Liquidity and Capital Resources").

In September 2015, Formula consummated a public offering in Israel of its Series A Secured Debentures and Series B Convertible Debentures. The Debentures are listed for trading only on the TASE.

In the public offering, Formula issued and sold a total amount of NIS 227,260,000 (\$57.8 million) par value of the Debentures, which were subdivided into Series A Secured Debentures and Series B Convertible Debentures. In January 2018, Formula issued and sold an additional NIS 150 million par value of Series A Secured Debentures for aggregate gross proceeds totaling NIS 155.2 million (approximately \$45.6 million), excluding issuance costs of \$0.2 million. For a description of the amounts outstanding under these Debenture series and the related covenants and restrictions to which we are subject, please see "Israeli Debenture Offerings" above in this Item 5.B ("Liquidity and Capital Resources").

We do not have material commitments for capital expenditures by Formula as of December 31, 2017 or as of the date of this annual report.

We have entered into an undertaking to indemnify our office holders in specified limited categories of events and in specified amounts, subject to certain limitations. For more information, see "Item 7. Major Shareholders and Related Party Transactions—Related Party Transactions—Indemnification of Office Holders."

*Subsidiary Commitments*

Our subsidiaries do not have any material commitments for capital expenditures as of December 31, 2017 or as of the date of this annual report.



As alluded to above (see “Sources of Financing—Subsidiary and Affiliate Financing Activities” in this Item 5.B (“Liquidity and Capital Resources”)), the loan agreements, debentures and indentures to which we are party contain a number of conditions and limitations on the way in which we (Matrix, Sapiens, Magic Software and Formula) can operate our businesses, including limitations on our ability to raise debt and sell or acquire assets not in normal business activity. For example, Matrix’s loan agreement includes a negative pledge with respect to Matrix’s assets, as well as limitations on Matrix’s ability to provide guarantees to third parties and sell or transfer its assets. Matrix’s loan agreements also contain various covenants which require it to maintain certain financial ratios related to shareholders’ equity and operating results that are customary for companies of comparable size.

Our subsidiaries and affiliate as of December 31, 2017 have provided bank guarantees aggregating to approximately \$29.7 million as security for the performance of various contracts with customers. If our subsidiaries and affiliates were to breach certain terms of such contracts, the customers could demand that the banks providing the guarantees pay amounts claimed to be due.

Our subsidiaries and affiliate as of December 31, 2017 have also provided additional bank guarantees aggregating to \$4.5 million as security for rent to be paid for their offices. If our subsidiary and affiliate were to breach certain terms of their leases, the lessors could demand that the banks providing the guarantees pay amounts claimed to be due.

Pursuant to the credit agreement and the Series A Secured Debentures described above, liens have been incurred over a certain portion of our investment in outstanding shares of Matrix, Sapiens and Magic Software.

We and IAI granted TSG, our jointly controlled affiliate, in equal share, a guarantee of NIS 40 million (approximately \$11.5 million) as security against TSG’s bank credit line and bank guarantees issued by TSG for the performance of various contracts with its customers.

### **C. Research and Development, Patents and Licenses, etc.**

The net amounts that we spent on research and development activities in 2016 and 2017 were \$22.3 million and \$39.9 million, respectively. For more information about our research and development activities, see “Item 4. Information on the Company—Business Overview— Software Development.”

For information concerning our intellectual property rights, see “Item 4. Information on the Company— Business Overview— Intellectual Property Rights.”

### **D. Trend Information**

For information see discussion in Item 4. “Information on the Company— Business Overview— Industry Background and Trends” and Item 5. “Operating and Financial Review and Prospects - Results of Operations.”

Table of Contents**E. Off-Balance Sheet Arrangements**

We are not a party to any off-balance sheet arrangements. In addition, we have no unconsolidated special purpose financing or partnership entities that are likely to create material contingent obligations.

**F. Tabular Disclosure of Contractual Obligations**

The following table summarizes our contractual obligations and commitments as of December 31, 2017.

	Payments due by period				
	Total	Less than 1 year	1-3 years	3-5 Years	More than 5 years
	(U.S. dollars, in thousands)				
Long-term debt obligations (1)	283,783	52,177	118,432	65,832	47,342
Lease obligations	65,019	31,030	28,225	5,764	-
Liabilities in respect of the acquisitions of operations	10,948	7,050	3,898	-	-
Debentures	155,739	6,516	68,041	31,231	49,951
Liability to the Innovation Authority (2)	254	254	-	-	-
Uncertainties in income taxes (3)	4,509	-	-	-	-
Accrued severance payments, net (4)	9,032	-	-	-	-
Total	529,284	97,027	218,596	102,827	97,293

(1) Includes interest.

(2) Does not include contingent liabilities to the Innovation Authority of approximately \$7.1 million as described in Note 17(f) to our consolidated financial statements contained elsewhere in this annual report.

(3) Payment of uncertain tax benefits would result from settlements with taxation authorities. Due to the difficulty in determining the timing of settlements, this information is not included in the above table. We do not expect to make any significant payments for these uncertain tax positions within the next 12 months.

(4) Accrued severance payments, net relate to accrued severance obligations and notice obligations mainly to our Israeli employees as required under Israeli labor law or personal employment agreements. We are legally required to pay severance upon certain circumstances, primarily upon termination of employment by our company, retirement or death of the respective employee. Our liability for all of our Israeli employees is fully provided for by monthly deposits with insurance policies and by an accrual.

Table of Contents**ITEM 6. DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES****A. Directors and Senior Management**

The following table sets forth information about our directors and senior management as of April 30, 2018.

Name	Age	Position	Expiration of Current Term of Directorship/Office
Guy Bernstein	50	Chief Executive Officer	December 2019 or upon 180 days advanced written notice of either party
Asaf Berenstein Maya	40	Chief Financial Officer	No formal arrangement regarding expiration of term of office
Solomon-Ella	40	Chief Operational Officer	No formal arrangement regarding expiration of term of office
Marek Panek	48	Chairman of the Board of Directors	2018 annual shareholders meeting
Rafal Kozlowski	44	Director	2018 annual shareholders meeting
Dafna Cohen <sup>(1)</sup> <sup>(3)</sup>	48	Director	2018 annual shareholders meeting
Eli Zamir <sup>(1)</sup> <sup>(2)</sup> <sup>(3)</sup>	49	External director	December 2018
Iris Yahal <sup>(1)</sup> <sup>(2)</sup> <sup>(3)</sup>	56	External director	December 2018

(1) Serves on the audit committee of our board of directors.

Serves as an external director under the Companies Law. See “Item 6. Directors, Senior Management and  
(2) Employees—Board Practices—External Directors under the Companies Law; Audit Committee; Internal Auditor; Approval of Certain Transactions under the Companies Law,” below.

(3) Serves on the compensation committee of our board of directors.

**Guy Bernstein** has served as our Chief Executive Officer since January 2008. Mr. Bernstein served as a member of our board of directors from November 2006 to December 2008. Mr. Bernstein served as a director of Emblaze Ltd., or Emblaze, our former controlling shareholder and a publicly-traded company listed on the London Stock Exchange, from April 2004 until February 2011. From December 2006 to November 2010, Mr. Bernstein also served as chief executive officer of Emblaze, and, prior thereto, from April 2004 to December 2006, as the chief financial officer of Emblaze. Mr. Bernstein serves as the chairman of the board of directors of each of Matrix and Sapiens and as chief executive officer and director of Magic Software, where he served as the chief financial and operations officer from 1999 until 2004, when he joined Emblaze. He joined Magic Software from Kost Forer Gabbay & Kasierer, a member of Ernst & Young Global, where he served as senior manager from 1994 to 1997. Mr. Bernstein also serves as a director of Michpal Micro Computers (1983) Ltd., a director at TSG IT Advanced Systems Ltd., and is a director at inSync staffing, all of them are subsidiaries of Formula Systems Mr. Bernstein holds a B.A. degree in accounting and economics from College of Management and is a certified public accountant in Israel.

**Asaf Berenstin** has served as our Chief Financial Officer since November 2011. Mr. Berenstin also serves as the Chief Financial Officer of our subsidiary, Magic Software, since April 2010. Prior to such time, beginning in August 2008, Mr. Berenstin served as Magic Software's corporate controller. Mr. Berenstin also serves as a director of Michpal Micro Computers (1983) Ltd., a director at TSG IT Advanced Systems Ltd., and is a director at inSync staffing, all of them are subsidiaries of Formula Systems. Prior to joining our company, Mr. Berenstin served as a controller at Gilat Satellite Networks Ltd. (NASDAQ: GILT), commencing in July 2007. From October 2003 to July 2007, Mr. Berenstin practiced as a certified public accountant at Kesselman & Kesselman, a member of PriceWaterhouseCoopers. Mr. Berenstin holds a B.A. degree in accounting and economics and an M.B.A. degree, both from Tel-Aviv University, and is a certified public accountant (CPA) in Israel.

**Maya Solomon-Ella** has served as our Chief Operational Officer since September 2016. In her last position Maya served as the Transaction Support leader in Ernst & Young Israel (Tel-Aviv branch). Maya served in Ernst & Young 13 years, three of which were with the Assurance Services team (Hi Tech) and 10 of which have been spent in the Transaction Advisory Services (TAS) group. Since joining the TAS group at Ernst & Young, Ms. Solomon-Ella has been involved in M&A transactions across the globe. Ms. Solomon-Ella holds a B.A. degree in Economics-Accounting from Bar Ilan University and is a Certified Public Accountant (CPA) in Israel.

**Marek Panek** has served as one of our directors since November 2010. Since January 2007 he has been the Vice President of the Board of Directors of Asseco Poland S.A. and he is responsible for supervising the Capital Group Development Division and the EU Projects Office. Mr. Panek also holds and has held several other positions at Asseco and its affiliates, including Chairman of the Board of Directors of Asseco Denmark (since March 2011), Chairman of the Supervisory Board of Asseco Resovia S.A. (since June 2016, former President of the Management Board), Supervisory Board Member of Asseco Central Europe, a.s. (since September 2011), Supervisory Board Member of Sintagma UAB (since April 2011), Supervisory Board Member of Asseco Lietuva UAB (since June 2011), Supervisory Board Member of Asseco Kazakhstan LLP (since June 2014), Member of the Board of Directors of ZAO R-Style Softlab (from May 2014 to March 2017), Member of the Board of Directors of Peak Consulting Group ApS (since January 2016), President of the Management Board of Asseco Enterprise Solutions a.s. (since December 2016), Supervisory Board Member of Insseco Sp. Z o.o (from February 2015 to July 2015), Supervisory Board Member of Asseco Bel LLC (from June 2015 to April 2016), Supervisory Board Member of Asseco Northern Europe S.A. (2010-2013), Chairman of the Board of Asseco DACH (2008-2011). During 2007-2008, Mr. Panek served as the Chairman of the Management Board of Asseco SEE and President of the Board of Asseco Romania. Mr. Panek first joined Asseco in 1995, having served in the following positions for the following periods of time: Marketing Specialist (from September 1995 to September 1996); Marketing Director (from October 1996 to March 2003); Sales and Marketing Director (from April 2003 to March 2004); and Member of the Board, Sales and Marketing Director (from March 2004 to January 2007). Prior to joining Asseco, Mr. Panek was employed at the ZE Gantel Sp. z o.o. from 1993 to 1995. Mr. Panek graduated from the Faculty of Mechanical Engineering and Aeronautics of the Rzeszów University of Technology in 1994, having been awarded a master's degree in engineering.

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**Rafał Kozłowski** has served as one of our directors since August 2012. Since June 2012, Mr. Kozłowski has served as Vice President of the Management Board and Chief Financial Officer of Asseco. Mr. Kozłowski is also a member of the Asseco Group Board of Directors. From May 2008 to May 2012, Mr. Kozłowski served as Vice President of Asseco South Eastern Europe S.A. responsible for the company's financial management. Mr. Kozłowski was directly involved in the acquisitions of companies incorporated within the holding of Asseco South Eastern Europe, as well as in the holding's IPO process at the Warsaw Stock Exchange. From 1996 to 1998, he served as Financial Director at Delta Software, and subsequently, from 1998 to 2003 as Senior Manager at Veraudyt. In the years 2004-2006, he was Head of Treasury Department at Softbank S.A. where he was delegated to act as Vice President of Finance at the company's subsidiary Sawan S.A. From 2007 through June 2009, he served as Director of Controlling and Investment Division at Asseco Poland S.A. Mr. Kozłowski graduated of the University of Warsaw, obtaining Master's degree at the Faculty of Organization and Management in 1998. He completed the Project Management Program organized by PMI in 2004, and the International Accounting Standards Program organized by Ernst & Young Academy of Business in the years 2005-2006.

**Dafna Cohen** has served as one of our directors since October 2009, as a member of our audit committee since January 2011 and as a member of our compensation committee since July 2013. Ms. Cohen is the Head of Business Control and Investor Relations of EL-AL Israel Airlines Ltd (TASE). Ms. Cohen has served as a member of board of directors of Gilat Satellite Networks Ltd since 2014 (NASDAQ and TASE). Ms. Cohen served as Director of Global Treasury of MediaMind Technologies Inc. (previously NASDAQ) and as a member of Investment Committee of the Board from 2010 to 2011. Prior to that, Ms. Cohen served as a Director of Investments and Treasurer of Emblaze Ltd. and as a member of Investment Committee of the Board from 2005 to 2009 (LSE). Prior to that, Ms. Cohen served as an Investment Manager for Leumi Partners and as a manager at the derivatives sector of Bank Leumi. Ms. Cohen previously served as a member of boards of directors of XTL Biopharmaceuticals Ltd. (NASDAQ and TASE) from 2009 to 2015, Europort Ltd. from 2012 to 2014 (TASE) and of Inventech Central Ltd from 2011 to 2012 (TASE). Ms. Cohen holds an M.B.A. in finance and accounting and a B.A. degree in economics and political science, both from The Hebrew University of Jerusalem.

**Eli Zamir** has served as one of our external directors, as a member of our audit committee since April 2013 and a member of our compensation committee since July 2013. Mr. Zamir currently serves as an independent financial advisor. From 2007 to December 2014 Mr. Zamir served as the CEO of Invest Pro Ltd., a private investment firm. From 1995 to 2002, Mr. Zamir served as a portfolio manager and from 2002 to 2007 Mr. Zamir served as the CEO of an underwriter. Until 2014, Mr. Zamir served as a director of Synopsis Ltd., a public company listed on the TASE. Mr. Zamir holds a B.A. degree in accounting and finance from Tel-Aviv University and an M.B.A. degree, from Ben Gurion University.

**Iris Yahal** has served as one of our external directors, the chairperson of our audit committee since April 2013 and a member of our compensation committee since July 2013. Ms. Yahal has also served as an external director and chairperson of the audit committee of Formula Vision Technologies, Ltd. (TASE: FTV) since 2017. Ms. Yahal is an independent strategic transaction advisor for various software, renewable energy, infrastructure and biotech companies since 2007. From 1995 through 2007, Ms. Yahal served as Chief Financial Officer of BluePhoenix Solutions Ltd., a public company listed on the NASDAQ Global Market and the TASE. In addition, from 1999 through 2007 Ms.

Yahal served as a director of BluePhoenix Solutions and each of its international subsidiaries. From 1991 until 1996, Ms. Yahal served as a controller at Argotech Ltd. which, at that time, was a wholly owned subsidiary of our company, operating as a start-up incubator. Prior to 1991, Ms. Yahal worked as an auditor with Wallenstein and Co., a public accounting firm. Ms. Yahal holds a B.A. degree in accounting and statistics and an M.B.A degree in business administration, both from Tel- Aviv University and is a certified public accountant in Israel.

*Arrangements for the Election of Directors; Family Relationships*

Asseco is our largest shareholder, holding 26% of our outstanding share capital and voting rights to approximately 46.3% of our outstanding share capital (each of 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. Asseco has significant influence over the election of the members of our board of directors (other than our external directors). Other than as described immediately above, there are no arrangements or understandings with major shareholders, customers, suppliers or others pursuant to which any of our directors or members of senior management were selected as such.

Mr. Guy Bernstein and Mr. Asaf Berenstin are first cousins. Other than such relationship, there are no family relationships among our executive officers and directors.

**B. Compensation**

*Aggregate Compensation Paid to Directors and Executive Officers*

In 2017, Formula paid to its directors and executive officers, consisting of the individuals listed above in the table under “—Directors and Senior Management”, direct remuneration and provided related benefits of approximately \$2.3 million (including stock based compensation in a total amount of \$1.1 million), in the aggregate with respect to 2017. This aggregate compensation amount includes amounts set aside or accrued to provide pension, retirement or similar post-employment benefits, which themselves totaled less than \$6,000 in 2017. In addition, Formula recorded with respect to its directors and executive officers expenses with respect to equity based compensation in a total amount of \$1.1 million for 2017.

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The above aggregate compensation amount does not include the following:

expenses, including business travel, professional and business association dues and expenses, for which Formula reimburses its officers; and  
other fringe benefits that companies in Israel commonly reimburse or pay to their officers,

as amounts incurred for such expenses and benefits in 2017 were paid in reimbursement of activities carried out by our directors and executive officers for strict business purposes in carrying out their duties on behalf of Formula and were therefore not compensatory in nature.

The above aggregate compensation amount includes payment of directors' fees. Formula compensates its external directors and other directors in accordance with the regulations promulgated under the Companies Law.

*Summary Compensation Table*

For so long as we qualify as a foreign private issuer, we are not required to comply with the executive compensation disclosure requirements applicable to U.S. domestic companies, including the requirement to disclose information concerning the amount and type of compensation paid to our chief executive officer, chief financial officer and the three other most highly compensated executive officers on an individual basis. Nevertheless, regulations promulgated under the Companies Law require us to disclose the annual compensation of our five most highly compensated office holders (as defined in the Companies Law) on an individual basis. Under the Companies Law regulations, this disclosure is required to be included in the annual proxy statement for our annual meeting of shareholders, which we furnish to the SEC under cover of a Report of Foreign Private Issuer on Form 6-K. Because of that disclosure requirement under Israeli law, we are also including that information in this annual report, pursuant to the disclosure requirements of Form 20-F.

The tables below reflect the compensation paid to our five most highly compensated office holders during or with respect to the year ended December 31, 2017. All amounts reported in the table reflect the cost to the Company, as recognized in our financial statements for the year ended December 31, 2017.

*Compensation of Management*<sup>(1)</sup>



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Name and Position <sup>(2), (3)</sup>	Salary (\$)	Benefits And Perquisites (\$)	Variable Compensation (\$)	Equity Based Compensation (\$) <sup>(5)</sup>
Guy Bernstein – CEO	508,000	(4)	(6)	(7)
Maya Solomon-Ella – COO	122,000	37,209	28,500	-

All amounts reported in the table are in terms of cost to Formula, as recorded in Formula’s financial statements. We have two office holders who are members of management who are compensated by Formula (CEO and COO). For disclosure concerning compensation paid by us to our remaining four most highly compensated office holders (all of whom are directors), please see the table under “Compensation of Directors” below.

The executive officer listed in the table is a full-time employee or consultants of Formula. Cash compensation amounts denominated in currencies other than the U.S. dollar were converted into U.S. dollars at the average conversion rate for 2017.

Our Chief Financial Officer, Asaf Berenstin, also serves as the chief financial officer of Magic Software. Pursuant to an agreement between Magic Software and Formula, Mr. Berenstin allocates 30%-40% of his time to Formula. Because he is not compensated by Formula, Mr. Berenstin is not listed in this table, however, Formula recognized an expense of \$130,500 in 2017 with respect to restricted shares granted to Mr. Berenstin.

Amounts reported in this column include benefits and perquisites, including those mandated by applicable law. Such benefits and perquisites may include, to the extent applicable to the executive officer, payments, contributions and/or allocations for savings funds, pension, severance, vacation, car or car allowance, medical insurances and benefits, risk insurances (e.g., life, disability, accident), convalescence pay, payments for social security, tax gross-up payments and other benefits and perquisites consistent with our guidelines.

Amounts reported in this column represent the expense recorded in our financial statements for the year ended December 31, 2017 with respect to equity-based compensation. Assumptions and key variables used in the calculation of such amounts are described in Note 17(a) to our consolidated financial statements, contained elsewhere in this annual report.

Under his service agreement with us, our chief executive officer, is entitled to an annual bonus in an amount equal to 3.3% of our net profit (including capital gains) after tax. An advance of 70% of the estimated bonus with respect to each year is paid over the course of the year, divided into quarterly installments, which is estimated based on our quarterly financial statements and is subject to final adjustment at the end of the year.

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In March 2012, concurrently with the amendment and extension of Mr. Bernstein's service agreement as our Chief Executive Officer, our Board of Directors awarded him options exercisable for 1,122,782 ordinary shares of Formula, which took the place of 543,840 redeemable ordinary shares that had been granted to him in March 2011 and had been redeemed by Formula. The exercise price of the options granted in March 2012 was NIS 0.01 per share, and the options were exercised in their entirety in June 2013 by Mr. Bernstein. Our redemption right with respect to the ordinary shares issuable upon exercise of these options lapses in equal quarterly installments over an eight-year period that commenced in March 2012 and concludes on December 31, 2019. This March 2012 grant has been accounted for by Formula as a modification to the March 2011 grant to Mr. Bernstein. On August 3, 2017 and on August 22, 2017, Asseco sold 2,356,605 and 589,151, Formula ordinary shares, respectively, representing 20% of our outstanding share capital, to 11 Israeli financial institutions and to our Chief Executive Officer, respectively, in privately negotiated sales transactions. The sales caused Asseco's equity interest in Formula to decrease from 46.3% to 26.3% and resulted in its loss of control of Formula. In accordance with Mr. Bernstein's share based award plan, such loss of control of Asseco over Formula resulted in the immediate acceleration of all of his unvested shares, which amounted to 350,869 as of such date. The total compensation expense that we recorded in our statement of profit or loss for the year ended December 31, 2017 in respect of Mr. Bernstein's March 2012 options grant (constituting his equity compensation for all of 2017) was \$928,000.

*Compensation of Directors*

The following table sets forth information with respect to compensation of our directors (none of whom serves as an employee of our company) during fiscal year 2017. The fees to the directors were paid by Formula.

Name and Principal Position	<b>Total Fees Earned or Paid in Cash (\$)<sup>(1)</sup></b>
Marek Panek - Chairman	33,000
Rafal Kozlowski - Director	33,000
Dafna Cohen - Director	36,500
Eli Zamir - External Director	37,400
Iris Yahal - External Director	55,300

(1) All amounts reported in the table are in terms of cost to Formula, as recorded in Formula's financial statements.

*Option Grants to, and Service Agreement with, Chief Executive Officer*

In January 2009, we granted to our Chief Executive Officer, Mr. Guy Bernstein, in connection with his service agreement with us, options to purchase 396,000 Formula ordinary shares, exercisable at an exercise price of NIS 0.01 per share. These options were to vest over a three-year period, commencing on December 17, 2008, on a quarterly basis (except that they would accelerate immediately prior to the announcement of Formula's 2010 dividend). In accordance with the accelerated vesting provisions of the grant, Mr. Bernstein exercised all of the options in April 2010, prior to the distribution by Formula of its 2010 dividend. In accordance with the terms of the option grant, the shares issued upon exercise of the option were deposited with a trustee and Mr. Bernstein was not permitted to vote or dispose of them until the shares were to be released from the trust, as described in the grant letter. In January 2011, in contemplation of our amendment and extension of Mr. Bernstein's service agreement with us, our board of directors determined that it was consistent with the intent of the original grant to immediately release from the trust 135,960 shares that had been issued upon exercise, after the lapse of two years since the option grant date. As of December 31, 2011 the remaining 260,040 shares were fully vested, although they remained in the trust.

In March 2011, concurrently with the amendment and extension of our Chief Executive Officer's service agreement, we granted to him options that were immediately exercisable for 543,840 redeemable ordinary shares of Formula. The options were to vest, i.e., our redemption right with respect to the options and the underlying ordinary shares issuable upon exercise was to lapse, in equal quarterly installments over a four year period that commenced in December 2011 and was to conclude in December 2015. The exercise price of the options was NIS 0.01 per share. Total fair value of the grant was calculated based on the share price on the grant date and totaled \$9.06 million (\$16.65 per share). In May 2011, Mr. Bernstein exercised all of these options for redeemable shares.

In December 2011, at which time we were negotiating an amendment and extension of our Chief Executive Officer's service agreement, we redeemed all of the above-described 543,840 shares for no consideration. In March 2012, concurrently with the amendment and extension of our Chief Executive Officer's service agreement, we approved a grant of options to him, exercisable for 1,122,782 ordinary shares of Formula as long as the Chief Executive Officer is (i) a director of Formula and/or (ii) a director of each of the directly held subsidiaries of Formula; provided that if he fails to meet the foregoing requirement (A) due to the request of the board of directors of either Formula or any of its directly held subsidiaries (other than a request which is based on actions or omissions by the Chief Executive Officer that would constitute "cause" under his service agreement with Formula), (B) because the Chief Executive Officer is prohibited under the governing law or charter documents of the relevant company or the stock exchange rules and regulations applicable to such company from being a director of such company (other than due to his actions or omissions) or (C) notwithstanding the Chief Executive Officer's willingness to be so appointed (but provided that neither (A) nor (B) applies); then, in each of (A), (B) and (C), the Chief Executive Officer will be deemed to have complied with clauses (i) or (ii) above. The options vest, i.e., our redemption right with respect to the options and the underlying ordinary shares issuable upon exercise lapses, in equal quarterly installments over an eight year period that commenced in March 2012 and concludes in December 2019. Notwithstanding the foregoing, if a change of control of the Company occurs, then all unvested options and/or restricted shares will immediately become vested. The exercise price of the options is NIS 0.01 per share. In accordance with the terms of the option grant, the shares issuable upon exercise of the option will be deposited with a trustee and our Chief Executive Officer will not be permitted to vote or dispose of them until the shares are released from the trust, as described in the grant letter.

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In June 2013, all 1,122,782 options were exercised into ordinary shares. Such ordinary shares have been deposited with a trustee and, pursuant to the terms of our 2011 Plan and the option agreement with respect to such options, our chief executive officer is not permitted to vote or dispose of them until the shares are released from the trust. All shares participate in dividends and have the right to vote, however for so long as the shares are held by the trustee (even if they have vested) the voting rights may only be exercised by the trustee. In accordance with the guidelines of our 2011 Share Incentive Plan for so long as the shares underlying any grant under the plan are being held by the trustee they will be voted by the trustee in the same proportion as the results of the other shares voting in the shareholder meeting. Only those shares for which the vesting period has expired may be collected from the trustee. On August 3, 2017 and August 22, 2017 Asseco sold 2,356,605 and 589,151, respectively, Formula ordinary shares, representing 20% of our outstanding share capital, to 11 Israeli financial institutions and to our Chief Executive Officer, respectively, in privately negotiated sales transactions. The sale resulted in a decrease of Asseco's equity interest in Formula from 46.3% to 26.3% and its loss of control of Formula. In accordance with Mr. Guy Bernstein's share based award plan, that loss of control in the Company resulted in the immediate acceleration of all his unvested shares, which amounted to 350,869 as of such date. As of April 30, 2018, all 1,122,782 shares were fully vested, although they remained in the trust.

Under his service agreement with us, Mr. Guy Bernstein, as our Chief Executive Officer, is entitled to a monthly salary, as well as an annual bonus in an amount equal to 3.3% of our net profit (including capital gains) after tax. An advance of 70% of the estimated bonus with respect to each year is paid over the course of the year, divided into quarterly installments, which is estimated based on our quarterly financial statements and is subject to final adjustment at the end of the year.

*Option Grants to Chief Financial Officer*

In November 2014, our board of directors awarded our Chief Financial Officer, Asaf Berenstin, 10,000 restricted shares under the 2011 Plan, or the Restricted Shares. The Restricted Shares vest on a quarterly basis over a four-year period, which commenced on November 13, 2014 and concludes on November 13, 2018, provided that during such time the Chief Financial Officer will continue to serve as (i) an officer of the Company and/or (ii) an officer in one of the directly held affiliates. If the Chief Financial Officer fails to meet the service condition due to the request of the board of directors of either Formula or any of its directly held affiliates (other than a termination of his provision of services which is based on actions or omissions by him that will constitute "cause" under his grant agreement with Formula), then, he will be deemed to have complied with clauses (i) or (ii) above. If a change of control of the Company occurs, then all unvested Restricted Shares will immediately become vested. Total fair value of the grant was calculated based on the Formula share price on the grant date and amounted to \$239,000 (\$23.9 per share). As a result of Asseco's sale of Formula ordinary shares representing 20% of our outstanding share capital in August 2018, as described above, Asseco lost control of Formula. In accordance with Mr. Berenstin's share based award plan, such loss of control resulted in the immediate acceleration of all his unvested Restricted Shares, which amounted to 3,125 as of that date. As of April 31, 2018 all 10,000 Restricted Shares awarded to Mr. Berenstin are fully vested, although they remain in the trust.

In August, 2017, our board of directors awarded our Chief Financial Officer, Asaf Berenstin, 10,000 restricted shares under the 2011 Plan. These additional restricted shares vest on a quarterly basis over a three-year period, which commenced on August 17, 2017 and concludes on August 16, 2020, provided that during such time the Chief Financial Officer continues to serve as (i) an officer of the Company and/or (ii) an officer in one of our directly held affiliates. If he fails to meet the service condition due to the request of the board of directors of either Formula or any of its directly held affiliates (other than a termination of his provision of services which is based on actions or omissions by him that will constitute “cause” under his grant agreement with Formula); then, the Chief Financial Officer will be deemed to have complied with clauses (i) or (ii) above. Notwithstanding the foregoing, if a change of control of Formula occurs, then all unvested additional restricted shares will immediately become vested. Total fair value of the grant was calculated based on the Formula share price on the grant date and amounted to \$371,000 (\$37.11 per share). As of April 30, 2018 all 10,000 additional restricted shares were deposited with the trustee, of which 1,667 shares have vested.

For a description of our 2008 Share Option Plan and 2011 Share Incentive Plan pursuant to which options or share awards may be granted from time to time to our directors, executive officers, employees and consultants, see “Item 6.E. Share Ownership— Arrangements Involving the Issue or Grant of Options to Purchase Shares” below.

### **C. Board Practices**

Pursuant to our amended and restated articles of association, or our articles, directors are generally elected at the annual general meeting of shareholders by a vote of the holders of a majority of the voting power represented at the meeting. Our existing board of directors may also appoint a new director to the board, assuming that the then-authorized size of the board, as last approved by our shareholders, exceeds the number of directors then serving on the board, whether due to a resignation or otherwise, in which case the newly appointed director holds office until the next annual general meeting of shareholders immediately following such appointment. Our board is currently comprised of five persons, of which each of Dafna Cohen, Eli Zamir and Iris Yahal has been determined by the board to be independent within the meaning of the Listing Rules of the NASDAQ Stock Market (or the NASDAQ listing rules), on which our ADSs are listed for trading. Mr. Zamir and Ms. Yahal serve as our external directors, as mandated under Israeli law, and are therefore subject to additional criteria to help ensure their independence. See “External Directors Under the Companies Law” below. Each of our directors, except for the external directors, holds office until the next annual general meeting of shareholders and may then be re-elected. Our officers are appointed by our board of directors.

Under the Companies Law, a person who lacks the necessary qualifications and the ability to devote an appropriate amount of time to the performance of his or her duties as a director shall not be appointed director of a publicly traded company. While determining a person’s compliance with such provisions, the company’s special requirements and its scope of business shall be taken into consideration. Where the agenda of a shareholders meeting of a publicly traded company includes the appointment of directors, each director nominee should submit a declaration to the company confirming that he or she has the necessary qualifications and that he or she is able to devote an appropriate amount of time to performance of his or her duties as a director. In the declaration, the director nominee should specify his or her qualifications and confirm that the restrictions set out in the Companies Law do not apply.



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Under the Companies Law, if a director ceases to comply with any of the requirements provided in the Companies Law, such director must immediately notify the company, and his or her term of service shall terminate on the date of the notice.

*External Directors Under the Companies Law*

Under the Companies Law, companies incorporated under the laws of Israel whose shares have been offered to the public in or outside of Israel, are required to appoint at least two external directors. This law provides that a person may not be appointed as an external director if the person is a relative of the controlling shareholder of the company or if that person or his or her relative, partner, employer, another person to whom he or she was directly or indirectly subject, or any entity under the person's control, has, as of the date of the person's appointment to serve as external director, or had, during the two years preceding that date: (a) any affiliation or other disqualifying relationship with the company, with any person or entity controlling the company or a relative of such person, or with any entity controlled by or under common control with the company; or (b) in the case of a company with no shareholder holding 25% or more of its voting rights, had at the date of appointment as an external director, any affiliation or other disqualifying relationship with a person then serving as chairman of the board or chief executive officer, a holder of 5% or more of the issued share capital or voting power in the company or the most senior financial officer. The term "affiliation" and the similar types of prohibited relationships include:

an employment relationship;  
a business or professional relationship, even if not maintained on a regular basis (but excluding a de minimis level relationship);  
control; and  
service as an office holder.

The term "office holder" is defined under the Israeli Companies Law as a general manager, chief business manager, deputy general manager, vice general manager, any other person assuming the responsibilities of any of these positions regardless of that person's title, a director and any other manager directly subordinate to the general manager.

No person may serve as an external director if the person's position or other business activities create, or may create, a conflict of interest with the person's responsibilities as an external director or may otherwise interfere with the person's ability to serve as an external director or if the person is an employee of the Israel Securities Authority or of an Israeli stock exchange. A person may furthermore not continue to serve as an external director if he or she received, during his or her tenure as an external director, direct or indirect compensation from the company including amounts paid pursuant to indemnification or exculpation contracts or commitments and insurance coverage for his or her service as an external director, other than as permitted by the Israeli Companies Law and the regulations promulgated thereunder. If, at the time of election of an external director, all other directors who are not the company's controlling persons or their relatives are of the same gender, the external director to be elected must be of the other gender. A

director of one company may not be appointed as an external director of another company if a director of the other company is acting as an external director of the first company at such time.

External directors are elected by a majority vote at a shareholders' meeting, provided that either:

such majority includes at least a majority of the shares held by all shareholders who are not controlling shareholders and do not have a personal interest in the election of the external director (other than a personal interest not deriving from a relationship with a controlling shareholder) that are voted at the meeting, excluding abstentions, to which we refer as a disinterested majority, or  
the total number of shares voted by non-controlling shareholders and by shareholders who do not have a personal interest in the election of the external director against the election of the external director does not exceed two percent (2%) of the aggregate voting rights in the company.

According to regulations promulgated under the Israeli Companies Law, a person may be appointed as an external director only if he or she has professional qualifications or if he or she has accounting and financial expertise (each, as defined below). In addition, at least one of the external directors must be determined by our board of directors to have accounting and financial expertise. A director with "accounting and financial expertise" is a director that due to his or her education, experience and skills has a high expertise and understanding in financial and accounting matters and financial statements, in such a manner which allows him to deeply understand the financial statements of the company and initiate a discussion about the presentation of financial data. A director is deemed to have "professional qualifications" if he or she either (i) has an academic degree in economics, business management, accounting, law or public service, (ii) has an academic or other degree or has completed other higher education, all in the field of business of the company or relevant for his/her position, or (iii) has at least five years' experience serving in one of the following capacities, or at least five years of cumulative experience serving in two or more of the following capacities: (a) a senior business management position in a company with a significant volume of business; (b) a senior position in the company's primary field of business; or (c) a senior position in public administration or service. Our board of directors has determined that Ms. Iris Yahal and Mr. Eli Zamir have the requisite professional qualifications and expertise as required of our external directors under the Companies Law.

An external director may be removed from office only: (i) by a court, upon determination that the external director to be so removed ceased to meet the statutory qualifications for his or her appointment or if he or she violated his or her duty of loyalty to the company or (ii) by the same percentage of shareholders, acting through a shareholders meeting, as is required for his or her election, if the board of directors has determined that the external director to be so removed has ceased to meet the statutory qualifications for his or her appointment or violated his or her duty of loyalty to the company and has proposed the removal to the shareholders. An external director who ceases to meet the conditions for his or her service as such must notify the company immediately and such service shall cease immediately upon such notification.



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The initial term of an external director is three years and may be extended by the general meeting of shareholders, for up to two additional three year terms, provided that (i) his or her service for each such additional term is recommended by one or more shareholders holding at least 1% of the company's voting rights and is approved at a shareholders meeting by a disinterested majority, where the total number of shares held by non-controlling, disinterested shareholders voting for such reelection exceeds 2% of the aggregate voting rights in the company, provided that the external director and certain of his or her related parties meet additional independence requirements; or (ii) his or her service for each such additional term is recommended by the board of directors and is approved at a meeting of shareholders by the same majority required for the initial election of an external director. In December 2015, Mr. Zamir and Ms. Yahal were reappointed as our external directors, each to hold office until December 2018. In accordance with the regulations under the Companies Law (Relief for Public Companies Whose Shares are Listed on a Stock Exchange Outside of Israel, 2000), dual listed companies, like us, whose securities are listed on the NASDAQ Global Select Market or one of a number of other non-Israeli stock exchanges, may re-appoint an external director for additional three-year terms, in excess of the nine years as described above, if the audit committee and the board of directors confirm that, due to the expertise and special contribution of the external director to the work of the board and its committees, his or her re-appointment is in the best interests of the company. The same special majority is required for election of the external director for each additional three-year term.

Each committee of a company's board of directors is required to include at least one external director and the audit committee must include all of the external directors.

An external director is entitled to compensation as provided in regulations promulgated under the Companies Law and is otherwise prohibited from receiving any compensation, directly or indirectly, in connection with services provided as an external director or otherwise to the company.

Following the termination of an external director's service on a board of directors, such former external director and his or her spouse and children may not be provided a direct or indirect benefit by the company, its controlling shareholder or any entity under its controlling shareholder's control, including engagement to serve as an executive officer or director of the company or a company controlled by its controlling shareholder or employment by, or providing services to, any such company for consideration, either directly or indirectly, including through a corporation controlled by the former external director. This restriction extends for a period of two years with regard to the former external director and his or her spouse or child and for one year with respect to other relatives of the former external director.

Under regulations recently promulgated under the Companies Law, Israeli public companies whose shares are traded on certain U.S. stock exchanges, such as the NASDAQ Global Select Market, and that lack a controlling shareholder (as defined below) are exempt from the requirement to appoint external directors. Any such company is also exempt from the Companies Law requirements related to the composition of the audit and compensation committees of the Board. Eligibility for these exemptions is conditioned on compliance with U.S. stock exchange listing rules related to majority Board independence and the composition of the audit and compensation committees of the Board, as

applicable to all listed domestic U.S. companies. Because we have a controlling shareholder as determined under the Companies Law (Asseco), we are not eligible for these exemptions under the new regulations.

*Qualifications of Directors Generally Under the Companies Law*

Under the Companies Law, the board of directors of a publicly traded company is required to make a determination as to the minimum number of directors (not merely external directors) who must have accounting and financial expertise (according to the same criteria described above with respect to external directors under “—External Directors Under the Companies Law”). In accordance with the Companies Law, the determination of the board should be based on, among other things, the type of the company, its size, the volume and complexity of its activities and the number of directors. Based on the foregoing considerations, our board determined that the number of directors with financial and accounting expertise in our company shall not be less than one. As described above under “—External Directors Under the Companies Law,” currently Ms. Iris Yahal and Mr. Eli Zamir have been determined by the board to possess such accounting and financial expertise.

*Unaffiliated Directors Under the Companies Law*

Under the Companies Law, the audit committee of a publicly traded company must consist of a majority of unaffiliated directors. An “unaffiliated director” is defined as an external director or a director who meets the following criteria:

he or she meets the qualifications for being appointed as an external director, except for (i) the requirement that the director be an Israeli resident (which does not apply to companies whose securities have been offered outside of Israel or are listed outside of Israel) and (ii) the requirement for accounting and financial expertise or professional qualifications; and

he or she has not served as a director of the company for a period exceeding nine consecutive years. For this purpose, a break of less than two years in the service shall not be deemed to interrupt the continuation of the service.

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*Audit Committee*

In addition to the foregoing requirement with respect to the majority of its members being unaffiliated directors, the Companies Law requires public companies such as ours to appoint an audit committee, comprised of at least three directors, including all of the external directors, one of whom must serve as chairman of the committee. The chairman of the board of directors, or any director employed by or otherwise providing services on a regular basis to the company or to a controlling shareholder or any entity controlled by a controlling shareholder, may not be a member of the audit committee. Under the Companies Law, our audit committee is responsible for (i) determining whether there are deficiencies in the business management practices of the company, including in consultation with the company's internal auditor or the independent auditor, and making recommendations to the board of directors to improve such practices, (ii) determining whether to approve certain related party transactions, including transactions in which an office holder has a personal interest and whether such transaction is extraordinary or material, (iii) establishing the approval process (including, potentially, the approval of the audit committee) for certain transactions with a controlling shareholder or in which a controlling shareholder has a personal interest, (iv) where the board of directors approves the working plan of the internal auditor, examining such working plan before its submission to the board and propose amendments thereto, (v) examining the company's internal controls and internal auditor's performance, including whether the internal auditor has sufficient resources and tools to dispose of his responsibilities (taking into consideration the company's special needs and size), (vi) examining the scope of the company's auditor's work and compensation and submitting a recommendation with respect thereto to the board of directors or the general meeting of shareholders, depending on which of them is considering the appointment of our auditor and (vii) establishing procedures with respect to the handling of company employees' complaints as to the management of the company's business and the protection to be provided to such employees. In compliance with regulations under the Companies Law, our audit committee also approves our financial statements, thereby fulfilling the requirement that a board committee provide such approval. An audit committee may not approve an action requiring its approval, unless at the time of approval a majority of the committee's members are present, of whom a majority consist of unaffiliated directors and at least one of them is an external director.

The NASDAQ listing rules and U.S. securities laws likewise require that we maintain an audit committee, all of whose members are independent of management. In accordance with the Sarbanes-Oxley Act of 2002 and the NASDAQ requirements, our audit committee's direct responsibilities include the appointment, compensation, retention and oversight of our independent auditors (which itself also requires shareholder ratification under Israeli law). The committee's U.S. and NASDAQ mandated responsibilities also include assisting the board in monitoring our financial statements and the effectiveness of our internal controls. We have adopted a formal audit committee charter that we have implemented, embodying these responsibilities.

Our audit committee consists of our two external directors, Mr. Eli Zamir and Ms. Iris Yahal, as well as Ms. Dafna Cohen. Each of Mr. Zamir, Ms. Yahal and Ms. Cohen qualifies as an independent director under both the NASDAQ listing rules and Rule 10A-3 of the Exchange Act. The board has furthermore determined that Ms. Yahal is an "audit committee financial expert" as defined by applicable SEC regulations. See "Item 16A. Audit Committee Financial Expert."

*Compensation Committee and Compensation Policy*

Under the Companies Law, the board of directors of a public company must appoint a compensation committee. The compensation committee must be comprised of at least three directors, including all of the external directors, who must constitute a majority of the members of the compensation committee. However, subject to certain exceptions, Israeli companies whose securities are traded on stock exchanges such as the NASDAQ Global Select Market, and who do not have a controlling shareholder, do not have to meet this majority requirement; provided, however, that the compensation committee meets other Companies Law composition requirements, as well as the requirements of the jurisdiction where the company's securities are traded. Each compensation committee member who is not an external director must be a director whose compensation does not exceed an amount that may be paid to an external director. The compensation committee is subject to the same Companies Law restrictions as the audit committee as to who may not be a member of the compensation committee.

The duties of the compensation committee include the recommendation to the company's board of directors of a policy regarding the terms of engagement of office holders, to which we refer as a compensation policy. That policy must be adopted by the company's board of directors, after considering the recommendations of the compensation committee, and will need to be brought for approval by the company's shareholders, which approval requires what we refer to as a Special Majority Approval for Compensation. A Special Majority Approval for Compensation requires shareholder approval by a majority vote of the shares present and voting at a meeting of shareholders called for such purpose, provided that either: (a) such majority includes at least a majority of the shares held by all shareholders who are not controlling shareholders and do not have a personal interest in such compensation arrangement; or (b) the total number of shares of non-controlling shareholders and shareholders who do not have a personal interest in the compensation arrangement and who vote against the arrangement does not exceed 2% of the company's aggregate voting rights.

We initially adopted a compensation policy during 2013. Our compensation policy was not re-approved at our Annual General Meeting of Shareholders that was held on December 21, 2016. In April 2018, in accordance with Section 276A(c) of the Israeli Companies Law 5759-1999, our compensation committee and the board determined that the approval of the compensation policy is in the best interest of the company and exercised their right to adopt the compensation policy notwithstanding it not having been approved by the shareholders at the Annual Meeting. The compensation policy serves as the basis for decisions concerning the financial terms of employment or engagement of office holders, including exculpation, insurance, indemnification or any monetary payment or obligation of payment in respect of employment or engagement. The compensation policy must relate to certain factors, including advancement of the company's objectives, the company's business plan and its long-term strategy, and creation of appropriate incentives for office holders. It must also consider, among other things, the company's risk management, size and the nature of its operations. The compensation policy must furthermore consider the following additional factors:

the knowledge, skills, expertise and accomplishments of the relevant office holder;  
the office holder's roles and responsibilities and prior compensation agreements with him or her;



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the relationship between the terms offered and the average compensation of the other employees of the company, including those employed through manpower companies;  
the impact of disparities in salary upon work relationships in the company;  
the possibility of reducing variable compensation at the discretion of the board of directors;  
the possibility of setting a limit on the exercise value of non-cash variable equity-based compensation; and  
as to severance compensation, the period of service of the office holder, the terms of his or her compensation during such service period, the company's performance during that period of service, the person's contribution towards the company's achievement of its goals and the maximization of its profits, and the circumstances under which the person is leaving the company.

The compensation policy must also include the following principles:

the link between variable compensation and long-term performance and measurable criteria;  
the relationship between variable and fixed compensation, and the ceiling for the value of variable compensation;  
the conditions under which an office holder would be required to repay compensation paid to him or her if it was later shown that the data upon which such compensation was based was inaccurate and was required to be restated in the company's financial statements;  
the minimum holding or vesting period for variable, equity-based compensation; and  
maximum limits for severance compensation.

The compensation committee is responsible for (a) recommending the compensation policy to a company's board of directors for its approval (and subsequent approval by its shareholders) and (b) duties related to the compensation policy and to the compensation of a company's office holders as well as functions previously fulfilled by a company's audit committee with respect to matters related to approval of the terms of engagement of office holders, including:

recommending whether a compensation policy should continue in effect, if the then-current policy has a term of greater than three (3) years (approval of either a new compensation policy or the continuation of an existing compensation policy must in any case occur every three years);  
recommending to the board of directors periodic updates to the compensation policy;  
assessing implementation of the compensation policy; and  
determining whether the compensation terms of the chief executive officer of the company need not be brought to approval of the shareholders.

Our board of directors has adopted a compensation committee charter setting forth the responsibilities of the compensation committee, which include:

the responsibilities set forth in the compensation policy;

reviewing and approving the granting of options and other incentive awards to the extent such authority is delegated by our board of directors; and reviewing, evaluating and making recommendations regarding the compensation and benefits for our non-employee directors.

Our compensation committee consists of our two external directors, Mr. Eli Zamir and Ms. Iris Yahal, as well as Ms. Dafna Cohen. Each of the members of our compensation committee qualifies as an independent director under the NASDAQ listing rules.

#### *Internal Auditor*

Under the Companies Law, the board of directors is required to appoint an internal auditor, nominated by the audit committee. The role of the internal auditor is to examine, among other matters, whether the company's actions comply with the law and orderly business procedure. Under the Companies Law, the internal auditor may be an employee of the company but not an office holder, or an interested party (i.e., a holder of 5% or more of the voting rights in the company or of the issued share capital, the chief executive officer of the company or any of its directors, or a person who has the authority to appoint the company's chief executive officer or any of its directors), or a relative of an office holder or of an interested party. In addition, the company's independent auditor or its representative may not serve as the company's internal auditor. Our internal auditor is Mr. Eyal Weitzman.

#### *NASDAQ Exemptions for a Foreign Private Issuer*

We are a foreign private issuer within the meaning of NASDAQ listing rule 5005(a)(18), since we are incorporated in Israel and we meet the other criteria set forth for a "foreign private issuer" under Rule 3b-4(c) under the Exchange Act. Therefore, pursuant to NASDAQ listing rule 5615(a)(3), we may follow home country practice in lieu of certain provisions of the NASDAQ listing rule 5600 series and certain other NASDAQ listing rules. Please see "Item 16G. Corporate Governance" below for a description of the manner in which we rely upon home country practice in lieu of complying with certain NASDAQ listing rules.

#### *Exculpation, Insurance and Indemnification of Directors and Officers*

Our office holders consist of the individuals listed in the table under "Directors and Senior Management," which is displayed under "Item 6. Directors, Senior Management and Employees." Under the Companies Law, an Israeli company may not exempt an office holder from liability with respect to a breach of his or her duty of loyalty, but may exempt in advance an office holder from his or her liability to the company, in whole or in part, with respect to a breach of his duty of care, provided, however, that such a breach is not related to a distribution of a dividend or any other distribution by the company.





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*Office Holders' Insurance.* Our articles provide that, subject to the provisions of the Companies Law, we may enter into a contract for the insurance of the liability of any of our office holders imposed on the office holder in respect of an act performed in his or her capacity as an office holder, with respect to:

- a breach of his duty of care to us or to another person;
- a breach of his duty of loyalty to us, provided that the office holder acted in good faith and had reasonable cause to assume that his act would not prejudice our interests; or
- a financial liability imposed upon him in favor of another person.

We have obtained an insurance policy covering the Formula Group's directors' and officers' liability. Certain of our subsidiaries (Magic Software, Sapiens, Insync, and Michpal) participate in the premium payments of the insurance, on a proportional basis. The total premium we paid during 2017 was approximately \$172,000.

*Indemnification of Office Holders.* Our articles provide that we may indemnify an office holder in respect of an obligation or expense imposed on or expended by an office holder in respect of an act performed in his capacity as an office holder as specified below:

- (i) a financial obligation imposed on him in favor of another person by any judgment, including a settlement or an arbitrator's award approved by a court; reasonable litigation expenses, including attorney's fees, expended by the office holder as a result of an investigation or proceeding instituted against him by a competent authority, provided that such investigation or proceeding concluded without the filing of an indictment against him, and either (i) concluded without the imposition of any financial liability in lieu of criminal proceedings; or (ii) concluded with the imposition of a financial liability in lieu of criminal proceedings but relates to a criminal offense that does not require proof of criminal intent; reasonable litigation expenses, including attorneys' fees, expended by the office holder or charged to him by a
- (ii) court, in proceedings instituted against him by another person, or in a criminal charge from which he was acquitted or in any criminal proceedings of a crime which does not require proof of criminal intent; expenses, including reasonable litigation expenses and legal fees, incurred by an office holder as a result of a proceeding instituted against such office holder in relation to (1) infringements that may impose financial
- (iii) sanction pursuant to the provisions of Chapter H'3 under the Israeli Securities Law, which we refer to as the Securities Law, or (2) administrative infringements pursuant to the provisions of Chapter H'4 under the Securities Law or (3) infringements pursuant to the provisions of Chapter I'1 under the Securities Law; and
- (iv) payments made by the office holder to an injured party for damages suffered under Section 52(54)(a)(1)(a) of the Securities Law.
- (v)

We may undertake to indemnify an office holder as aforesaid, (a) prospectively, provided that in respect of (i) above, the undertaking is limited to categories of events that in the opinion of our board of directors are foreseeable in light of our actual operations at the time that the undertaking to indemnify is given, and to the amounts or criteria that our

board of directors deems reasonable under the circumstances, and further provided that such events and amount or criteria are set forth in the undertaking to indemnify, but in any event no more than 25% of Formula's shareholders equity according to its most recent financial statements as of the date of the actual payment of indemnification; and (b) retroactively.

*Limitations on Exemption, Insurance and Indemnification.* The Companies Law provides that a company may not indemnify an office holder, enter into an insurance contract which would provide coverage for any monetary liability, or exempt an office holder from liability, with respect to any of the following:

- a breach by the office holder of his duty of loyalty unless the office holder acted in good faith and had a reasonable basis to believe that the act would not prejudice the company;
- a breach by the office holder of his duty of care if the breach was done intentionally or recklessly, except for a breach that was made in negligence;
- any act or omission done with the intent to derive an illegal personal benefit;
- any fine levied against the office holder; or
- a counterclaim made by the company or in its name in connection with a claim against the company filed by the office holder.

In addition, under the Companies Law, indemnification of, and procurement of insurance coverage for, our office holders must be approved by our audit committee and our board of directors and, in specified circumstances, by our shareholders.

We have entered into undertakings to indemnify our office holders in specified limited categories of events and in specified amounts, subject to the limitations set by the Companies Law and our articles, as described above. For more information, see "Item 7.B. Related Party Transactions – Indemnification of Office Holders."

#### *Directors' Severance Benefits Upon Termination of Employment*

We have not entered into any service contracts with any members of our board of directors that provide for specific benefits upon termination of employment, as none of our directors is employed by us or otherwise subject to a consulting or similar contract with us that provides benefits upon termination of employment or service. The only severance pay benefits that we provide are provided to employees as required under Israeli law and are described below in the section titled "Employees".

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The table below sets forth the average number of employees employed by us, as allocated (i) among our five subsidiaries in which we have effective control through December 31, 2017 and (ii) by geographical area of employment, during each of the last three fiscal years:

	2015	2016	2017
Matrix	7,644	8,250	8,630
Magic Software	1,203	1,699	2,052
Sapiens	1,573	1,928	2,376
TSG	345	375	375
Michpal	-	-	47
Insync	561	1,320	997
Total	11,326	13,572	14,477

	2015	2016	2017
Israel	8,652	9,608	10,032
Europe	704	838	771
United States and Canada	1,538	2,548	2,913
South Africa	12	10	28
Asia	420	568	733
Total	11,326	13,572	14,477

With respect to our employees in Israel, we are subject to various Israeli labor laws and labor practices, and to administrative orders extending certain provisions of collective bargaining agreements between the Histadrut (Israel's General Federation of Labor) and the Coordinating Bureau of Economic Organizations (the Israeli federation of employers' organizations) to all private sector employees. For example, mandatory cost of living adjustments, which compensate Israeli employees for a portion of the increase in the Israeli consumer price index, are determined, from time to time, on a nationwide basis. Israeli law also requires the payment of severance benefits upon the termination, retirement (in some instances) or death of an employee. We meet this requirement by (i) contributing on an ongoing basis towards "managers' insurance" funds that combine pension, insurance and, if applicable, severance pay benefits and (ii) payment of differences, if applicable. In addition, Israeli employers and employees are required to pay specified percentages of wages to the National Insurance Institute. Other provisions of Israeli law or regulation govern matters such as the length of the workday, minimum wages, other terms of employment and restrictions on discrimination.

We are also subject to the labor laws and regulations of other jurisdictions in the world where we have employees.

## **E. Share Ownership**

As of April 30, 2018, none of our directors or officers owned any shares of our company (whether actual ordinary shares or shares issuable upon exercise of options), except for Mr. Guy Bernstein, our Chief Executive Officer, and Mr. Asaf Berenstin, as described above. None of the ordinary shares beneficially owned by Messrs. Bernstein and Berenstin has voting rights different from those possessed by other holders of Formula's ordinary shares.

At the current time, based on information that he has provided to us, Mr. Guy Bernstein beneficially owns 1,971,973 of Formula's ordinary shares, in the aggregate. Please see "Item 7. Major Shareholders and Related Party Transactions—A. Major Shareholders" below for more information.

At the current time, based on information that he has provided to us, Mr. Asaf Berenstin owns 20,000 of Formula's ordinary shares, which were granted to him on November 13, 2014 and on August 17, 2017 (as described above under "Item 6. Directors, Senior Management and Employees— B. Compensation— Option Grants to Chief Financial Officer").and in Note 17(a) to our consolidated financial statements contained elsewhere in this annual report). Of those options, as of April 30, 2018, 11,667 are vested and the remainder are subject to restrictions.

## **Arrangements Involving the Issue or Grant of Options to Purchase Shares**

### *Formula's 2008 Share Option Plan*

In March 2008, our shareholders approved the adoption of Formula's 2008 Employee and Office Holders Share Option Plan, which we refer to as the 2008 Plan. Pursuant to the 2008 Plan, we may grant from time to time to our and our subsidiaries' employees and office holders (which are not Formula's controlling shareholders) options to purchase up to 400,000 ordinary shares of Formula. The 2008 Plan is administered by our board of directors. The 2008 Plan provides that options may be granted, from time to time, to such grantees to be determined by our board of directors, at such exercise prices and under such terms as shall be determined by the board at its sole and absolute discretion. Options may be granted under the 2008 Plan through January 2018.

Of the options available for grant under the 2008 Plan, we granted, in January 2009, options to purchase 396,000 ordinary shares to our Chief Executive Officer, each exercisable at an exercise price of NIS 0.01. (Please see "Item 6. Directors, Senior Management and Employees— B. Compensation— Option Grants to, and Service Agreement with, Chief Executive Officer" for a description of that grant.) As of April 30, 2018, there are no available shares for future grants under the 2008 Plan.

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*Formula's 2011 Share Incentive Plan*

In March 2011, our board of directors adopted Formula's 2011 Share Incentive Plan, which we refer to as the 2011 Plan. Pursuant to the 2011 Plan, we may grant from time to time to our and our subsidiaries' employees, office holders (which are not Formula's controlling shareholders) and consultants options to purchase, share based awards or restricted shares with respect to, up to an aggregate of 545,000 ordinary shares of Formula. The 2011 Plan is administered by our board of directors. The 2011 Plan provides that options, restricted shares or other stock-based awards may be granted, from time to time, to such grantees to be determined by our board of directors, at such exercise prices and with such vesting or other terms as shall be determined by the board at its sole and absolute discretion. Options may be granted under the 2011 Plan through March 2021.

In March 2012, our board of directors increased the amount of ordinary shares reserved for issuance under the 2011 Share Incentive Plan by 1,200,000 shares.

Of the options available for grant under the 2011 Plan, we approved the grant, in March 2011, of options to purchase 543,840 ordinary shares to our Chief Executive Officer, each to be exercisable for no consideration and, in March 2012, we approved the grant of options to purchase 1,122,782 ordinary shares to our Chief Executive Officer, each to be exercisable for NIS 0.01 per share. Please see "Item 6. Directors, Senior Management and Employees— B. Compensation— Option Grants to, and Service Agreement with, Chief Executive Officer" for a description of those grants. We have also approved the grant of 10,000 restricted shares to our Chief Financial Officer on each of November 13, 2014 and August 17, 2017 under the 2011 Plan. Please see "Item 6. Directors, Senior Management and Employees— B. Compensation— Option Grants to Chief Financial Officer" for a description of those grants.

As of April 30 2018, 58,378 ordinary shares remain available for future grants under the 2011 Plan.

*Option Plans of Our Subsidiaries*

Our subsidiaries generally have share option plans pursuant to which qualified directors, employees and consultants may be granted options for the purchase of securities of the subsidiaries.

**ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS**

**A. Major Shareholders**

The following table presents information regarding the beneficial ownership (as defined in Form 20-F promulgated by the SEC) of Formula's ordinary shares as of March 31, 2018 by each person known to us to be the beneficial owner of 5% or more of Formula's ordinary shares based on information provided to us by our shareholders or disclosed in public filings with the SEC. Percentages expressed in the below table are based on 14,738,782 ordinary shares outstanding as of March 31, 2018 (which includes ordinary shares subject to restrictions and repurchase by us). Ordinary shares represented by ADSs are included both in the number of our outstanding ordinary shares and in determining the beneficial ownership of any particular shareholder or group of shareholders. None of the holders of the ordinary shares listed in the below table has voting rights different from other holders of Formula's ordinary shares. Except where indicated otherwise, we believe, based on information furnished by these owners, that each of the beneficial owners of Formula's shares listed below has sole investment and voting power with respect to such shares.

Name	Number of Ordinary Shares Beneficially Owned (1)	Percentage of Ownership (2)	
Asseco Poland S.A. (3)	5,849,819	39.7	%
Guy Bernstein (4)	1,971,973	13.4	%
Menora Mivtachim Holdings Ltd.(5)	1,020,122	6.9	%
Psagot Investment House Ltd. (6)	773,543	5.3	%
Clal Insurance Enterprises Holdings Ltd. (7)	834,919	5.7	%
Meitav Dash Investments Ltd. (8)	765,065	5.2	%
Yelin Lapidot Holdings Management Ltd. (9)	764,443	5.2	%
Phoenix Holdings Ltd. (10)	779,139	5.3	%
All directors and executive officers as a group (8 persons) (11)	1,984,473	13.5	%

Beneficial ownership is determined in accordance with the rules of the Securities and Exchange Commission, or the SEC, and generally includes voting or investment power with respect to securities. Ordinary shares relating to options currently exercisable or exercisable within 60 days of the date of this table are deemed outstanding for (1) computing the percentage of the person holding such securities but are not deemed outstanding for computing the percentage of any other person. Except as indicated by footnote, and subject to community property laws where applicable, the persons named in the table above have sole voting and investment power with respect to all shares shown as beneficially owned by them.

(2) The percentages shown are based on 14,738,782 ordinary shares (including shares represented by ADSs) issued and outstanding as of March 31, 2018.

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(3) Based on Amendment No. 3 to Schedule 13D filed by Asseco Poland S.A., or Asseco, with the SEC on October 19, 2017. Includes 1,971,973 ordinary shares owned by Mr. Guy Bernstein, with respect to which Asseco currently possesses the voting rights pursuant to a voting agreement between Asseco and Mr. Bernstein. Due to the public ownership of its shares, Asseco is not controlled by any other corporation or any one individual or group of shareholders.

(4) Based on Amendment No. 2 to Schedule 13D filed by Mr. Bernstein with the SEC on October 19, 2017. Consists of (a) (i) 260,040 ordinary shares, and (ii) an additional 1,122,782 ordinary shares, all of which are held in trust for Mr. Bernstein, and (b) an additional 589,151 ordinary shares, of which (iii) 297,451 are held by Mr. Bernstein and (iv) 291,700 are held in trust for Mr. Bernstein. Asseco currently possesses the voting rights to all such shares pursuant to a voting agreement between Asseco and Mr. Bernstein.

(5) Based on written notification received from Menora Mivtachim Holdings Ltd., or Menora Holdings, subsequent to the filing by such shareholder of Amendment No. 4 to Schedule 13G on February 14, 2018. Such ordinary shares are held for members of the public through, among others, provident funds and/or mutual funds and/or pension funds and/or index-linked securities and/or insurance policies, which are managed by subsidiaries of Menora Holdings, each of which subsidiaries operates under independent management and makes independent voting and investment decisions.

(6) Based on Amendment No. 1 to Schedule 13G filed by Psagot Investment House Ltd., or Psagot, on February 12, 2018. The ordinary shares beneficially owned by Psagot are held by portfolio accounts managed by Psagot Securities Ltd., Psagot Exchange Traded Notes Ltd., mutual funds managed by Psagot Mutual Funds Ltd., provident funds and pension funds managed by Psagot Provident Funds and Pension Ltd. Each of Psagot Securities Ltd., Psagot Exchange Traded Notes Ltd., Psagot Mutual Funds Ltd., Psagot Provident Funds and Pension Ltd. is a wholly-owned subsidiary of Psagot Investment House Ltd. The Psagot subsidiaries operate under independent management and make their own independent voting and investment decisions. Any economic interest or beneficial ownership in any such ordinary shares is held for the benefit of the owners of portfolio accounts, the holders of the exchange-traded notes, or for the benefit of the members of the mutual funds, provident funds, or pension funds, as the case may be. Each of Psagot and Psagot subsidiaries disclaims beneficial ownership of any such ordinary shares.

(7) Based on written notification received from Clal Insurance Enterprises Holdings Ltd., or Clal, subsequent to the filing by such shareholder of Amendment No. 1 to Schedule 13G on February 14, 2018. Clal is a publicly-held Israeli corporation. The majority outstanding shares of Clal are held by a trustee appointed by the Israeli Supervisor of Capital Markets, Insurance and Savings on behalf of IDB Development Corporation Ltd., or IDB, pending IDB's sale of its controlling interest in Clal. The ordinary shares held by Clal are held for members of the public through, among others, provident funds and/or pension funds and/or insurance policies, which are managed by subsidiaries of Clal, which subsidiaries operate under independent management and make independent voting and investment decisions.

(8) Based on written notification received from Meitav Dash Investments Ltd., or Meitav Dash, subsequent to the filing by such shareholder of Schedule 13G on January 8, 2018. The ordinary shares beneficially owned by Meitav

Dash are held by (i) provident funds of Meitav Dash (541,260 ordinary shares), (ii) mutual funds of Meitav Dash (67,449 ordinary shares) and (iii) ETFs of Meitav Dash (156,366 ordinary shares).

Based on written notification received from Yelin Lapidot Holdings Management Ltd., or Yelin, subsequent to the filing by such shareholder of Amendment No. 1 to Schedule 13G filed on January 31, 2018. The ordinary shares beneficially owned by Yelin are held by provident funds managed by Yelin Lapidot Provident Funds Management Ltd., or Yelin Provident, and/or mutual funds managed by Yelin Lapidot Mutual Funds Management Ltd., or Yelin (9) Mutual. Each of Yelin Provident and Yelin Mutual is a wholly-owned subsidiary of Yelin Holdings. Messrs. Dov Yelin and Yair Lapidot each own 24.38% of the share capital and 25% of the voting rights of Yelin Holdings, and are responsible for the day-to-day management of Yelin Holdings. The ordinary shares beneficially owned are held for the benefit of the members of the provident funds and the mutual funds. Each of Messrs. Yelin and Lapidot, Yelin Holdings, Yelin Provident and Yelin Mutual disclaims beneficial ownership of the subject ordinary shares.

Based on written notification received from Phoenix Holdings Ltd., or Phoenix Holdings, subsequent to the filing by such shareholder of Amendment No. 1 to Schedule 13G filed on February 20, 2018. The ordinary shares held by Phoenix Holdings are beneficially owned by various direct or indirect, majority or wholly-owned subsidiaries of Phoenix Holdings, or the Phoenix Subsidiaries. The Phoenix Subsidiaries manage their own funds and/or the (10) funds of others, including for holders of exchange-traded notes or various insurance policies, members of pension or provident funds, unit holders of mutual funds, and portfolio management clients. Each of the Phoenix Subsidiaries operates under independent management and makes its own independent voting and investment decisions. Phoenix Holdings is a majority-owned subsidiary of Delek Group Ltd. The majority of Delek Group Ltd.'s outstanding share capital and voting rights are owned, directly and indirectly, by Itshak Sharon (Tshuva) through private companies wholly-owned by him, and the remainder are held by the public.

Includes the shares described in note (4) above and 12,500 vested restricted shares granted to Asaf Berenstin, the Company's Chief Financial Officer, on November 13, 2014 and on August 17, 2017 under the Company's 2011 (11) Plan. An additional 7,500 restricted shares remain subject to restriction. Besides Mr. Bernstein and Mr. Berenstin, none of our other directors or executive officers beneficially owns any ordinary shares (whether actual ordinary shares or shares issuable upon exercise of options).



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*Recent Significant Changes in Holdings of Major Shareholders*

On August 3, 2017 Asseco, then holding 6,823,602, representing 46.3% of our outstanding share capital, sold 2,356,605 of our ordinary shares, representing 16% of our outstanding share capital to eleven Israeli financial institutions, in privately negotiated sales transactions, for NIS124.14 per share (or \$34.59 per share, based on the representative exchange rate of NIS 3.589 = US \$1.00 reported by the Bank of Israel as of August 3, 2017). On August 22, 2017, Asseco sold additional 589,151 of our ordinary shares, representing 4% of our outstanding share capital to Mr. Bernstein, our Chief Executive Officer for the same price per share. As a result of these transactions, Asseco ownership of our outstanding share capital was reduced to 26.3%.

On October 4, 2017, Asseco entered into a shareholders agreement with our Chief Executive Officer, under which agreement Asseco has been granted an irrevocable proxy to vote an additional 1,971,973 of our ordinary shares, thereby effectively giving Asseco beneficial ownership (voting power) over an aggregate of 39.7% 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).

As of March 31, 2018, 14,738,782 ordinary shares were issued and outstanding, which excludes 24,780 ordinary shares that we repurchased during 2002 and 543,840 that we repurchased during 2011. On April 30, 2018, we had two shareholders of record, one of which was a United States record holder. The number of record holders is not representative of the number of beneficial holders of our ordinary shares, as the shares of all shareholders (including shares represented by ADSs) are recorded in the name of our Israeli share registrar, Israel Discount Bank Limited's registrar company. All of our ordinary shares (including shares represented by ADSs) have equal voting rights. However, under applicable Israeli law, the shares that we have repurchased and currently hold have no voting rights and, therefore, are excluded from the number of our outstanding shares.

As of April 30, 2018, 173,745 ADSs were issued and outstanding pursuant to a depositary agreement with The Bank of New York Mellon, representing approximately 4.6% of our outstanding ordinary shares. As of that date, there were approximately 53 registered holders of our ADSs, of whom approximately 45 record holders were United States residents. Such number of record holders is not representative of the actual number of beneficial holders of our ADSs in the United States.

We are unaware of any arrangements which may at a subsequent date result in a change in control of Formula.

**B. Related Party Transactions**

*Indemnification of Office Holders*

We have undertaken to indemnify each of our office holders. Our office holders' indemnification letters provide, among other things, that we will indemnify each of our office holders to the maximum extent permitted by our articles. Advance payments for coverage of legal expenses in criminal proceedings will be required to be repaid by an office holder to the company if such office holder is found guilty of a crime which requires proof of criminal intent, or if it is determined that the office holder is not lawfully entitled to such indemnification.

All of the indemnification letters granted to our office holders are identical, including indemnification letters granted to office holders who are or may be considered "controlling persons" under the Companies Law.

The indemnification is limited to the expenses and matters detailed in the indemnification letters insofar as they result from an office holder's actions in connection with, among other things, the following matters: the offering of securities by us to the public or to private investors; the offer by us to purchase securities from the public, private investors or other holders, whether pursuant to a prospectus, agreement, notice, report, tender or any other proceeding; our labor relations and/or employment matters and our trade relations; the development or testing of products developed by us, or the distribution, sale, license or use of such products; and occurrences in connection with investments made by us.

Our undertaking for indemnification is limited to up to 25% of our shareholders' equity as it appears in our latest financial statements known at the date of indemnification, calculated with respect to each director and officer of Formula.

Our undertaking for indemnification shall not apply to a liability incurred as a result of any of the following:

- (i) a breach by an office holder of his or her fiduciary duty, except, to the extent permitted by law, for a breach while acting in good faith and having reasonable cause to assume that the action was in our best interest;
- (ii) a grossly negligent or intentional violation of the office holder's duty of care;
- (iii) an intentional action in which the office holder intended to reap a personal gain illegally;
- (iv) a fine, civil fine or financial sanction levied against and/or imposed upon the office holder;
- (v) a proceeding instituted against the office holder pursuant to the provisions of Chapter H'3, H'4 or I'1 under the Securities Law, except as otherwise permitted in the undertaking; or

(vi) a counterclaim brought by us or in our name in connection with a claim against us filed by the office holder, other than by way of defense or by way of third party notice in connection with a claim brought against the office holder by us, or in specific cases in which our board of directors has approved the initiation or bringing of such suit by the office holder, which approval shall not be unreasonably withheld.

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We shall not be required to indemnify an office holder, if the office holder, or anyone on his or her behalf, already received payment in respect of a liability subject to indemnification, under an effective insurance coverage or an effective indemnification arrangement with a third party, provided, however, that if such payment made to the office holder does not cover the entire liability subject to the indemnification, we shall indemnify the office holder in respect of the difference between the amount paid to the office holder and the liability subject to the indemnification.

*Office Holders' Insurance*

We have obtained an insurance policy covering the Formula Group's directors' and officers' (D&O) liability. Our subsidiaries participate in the premium payments of the insurance, on a proportional basis. The current coverage of our directors' and officers' liability insurance policy is up to a maximum of \$40.0 million both per incident and in the aggregate, plus \$10.0 million of Side A DIC coverage. The total premium Formula paid during 2017 was approximately \$172,000.

In April 2018, our compensation committee and board of directors determined that it is in the best interest of the Company and our shareholders and therefore approved, subject to shareholder approval, that we obtain one or more renewals of our D&O insurance policy, which will reflect certain increases in the insurance coverage, for a period of up to three years.

The renewed insurance coverage will be subject to the following terms: (i) the coverage will be no less than \$10 million, both per claim and in the aggregate; (ii) the annual premium to be paid by our company and its subsidiaries will not exceed an amount representing an increase of 20% or more in any year, as compared to the previous year, and in any event no more than \$400,000 per year; and (iii) any renewal, extension or substitution will be for the benefit of our company's and its subsidiaries' officers and directors and will otherwise be on terms substantially similar to or better (from the perspective of the directors and officers) than those of the then-effective insurance policy.

*Service Agreement with our Chief Executive Officer*

We are party to a written service agreement with our Chief Executive Officer, Mr. Guy Bernstein, which was entered into in December 2008 and was amended in March 2011 and in March 2012 and which has a term of 84 months from the date of such last amendment. This agreement provides for early termination by either side upon 180 days advance written notice, during which time the Chief Executive Officer will continue to receive service fees. This agreement furthermore contains customary provisions regarding nondisclosure, confidentiality of information and assignment of inventions.

*Option Agreement with our Chief Executive Officer*

For a description of the option agreement with our Chief Executive Officer, please see “Item 6.B. Compensation – Option Grants to, and Service Agreement with, Chief Executive Officer.”

*Services Obtained from Asseco*

During 2017, Asseco provided back-office services, professional services and fixed assets to Sapiens’ wholly-owned subsidiary, Sapiens Poland, in an amount totaling approximately \$1.6 million.

*Services provided to Asseco*

During 2017, Sapiens Poland performed services as a sub-contractor on behalf of Asseco for clients of Asseco in a total amount of approximately \$8.25 million. For historic reasons, Asseco issues invoices to those clients and then Sapiens in turn invoices Asseco on a back-to-back basis.

During 2017, Matrix performed services as a sub-contractor on behalf of Asseco Denmark AS, a subsidiary of Asseco in an amount totaling approximately €0.5 million (\$0.6 million).

*Fees Paid for Board Services in Affiliates*

Sapiens paid us approximately \$28,600 in respect of their share of the director’s fees of Guy Bernstein, their Chairman, for the year ended December 31, 2017.

Matrix paid us approximately \$30,000 in respect of their share of the director’s fees of Guy Bernstein, their Chairman, for the year ended December 31, 2017.

Mr. Bernstein serves as the Chief Executive Officer of Formula.

*Other Transactions*

As of December 31, 2017, the Group had trade payable balances due to its related parties in amount of approximately \$0.2 million and. In addition, as of December 31, 2017 the Group had trade receivables balances due from its related parties in amount of approximately \$1.5 million.

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From time to time, in our ordinary course of business, we engage in non-material transactions with our subsidiaries and affiliates where the amount involved in, and the nature of, the transactions are not material to any party to the transaction. We believe that these transactions are made on an arms' length basis upon terms and conditions no less favorable to us, our subsidiaries and affiliates, as we could obtain from unaffiliated third parties. If we engage with our subsidiaries and affiliates in transactions which are not in the ordinary course of business, we receive the approvals required under the Companies Law. These approvals include audit committee approval, board approval and, in certain circumstances, shareholder approval. See "Item 6.C. Board Practices."

**C. Interests of Experts and Counsel**

Not applicable.

**ITEM 8. FINANCIAL INFORMATION**

**A. Consolidated Statements and Other Financial Information**

*Financial Statements*

Our consolidated financial statements and other financial information are incorporated herein by reference to "Item 18. Financial Statements" below.

*Export Sales*

In 2017, 38% of our revenues originated from customers located outside of Israel. For information on our revenues breakdown by geographic market for the past three years, see "Item 4.—Information on the Company— Business Overview— Geographical Distribution of Revenues."

*Legal Proceedings*

From time to time, we are subject to legal, administrative and regulatory proceedings, claims, demands and investigations in the ordinary course of business, including claims with respect to intellectual property, contracts, employment and other matters. In Accordance with IFRS, we accrue a liability when it is both probable that a liability has been incurred and the amount of the loss can be reasonably estimated. Significant judgment is required in the determination of both the probability and as to whether a loss is reasonably estimable. These accruals are reviewed at least quarterly and adjusted to reflect the impact of negotiations, settlements, rulings, advice of legal counsel and other information and events pertaining to a particular matter. We intend to vigorously defend ourselves against the above claims, and we generally intend to vigorously defend any other legal claims to which we are subject. While for most litigation, the outcome is difficult to determine, to the extent that there is a reasonable possibility that the losses to which we may be subject could exceed the amounts (if any) that it has already accrued, we attempt to estimate such additional loss, if reasonably possible, and disclose it (or, if it is an immaterial amount, indicate accordingly). The aggregate provision that we have recorded for all other legal proceedings (other than the particular material proceeding described below) is not material. Furthermore, in respect of our ordinary course legal, administrative and regulatory proceedings (i.e., other than the particular material proceeding described below), we estimate, in accordance with the procedures described above, that as of the current time there is no reasonable possibility that we will incur material losses exceeding the non-material amounts already recognized.

*Legal Proceedings related to Magic Software:*

*Disputes with Software Company*

In August 2009, an Israeli software company and one of its owners initiated an arbitration proceeding, or the First Arbitration, Magic Software and one of its subsidiaries, claiming an alleged breach of a non-disclosure agreement between the parties. The software company sought damages in the amount of approximately NIS 52 million (approximately \$13.4 million). The arbitrator rendered his decision in January 2015 and determined that Magic Software should pay damages in the amount of \$2.4 million.

In September 2016, the same software company filed a lawsuit seeking damages of NIS 34.1 million (approximately \$9.8 million) against Magic Software and one of its subsidiaries, in an arbitration proceeding taking place between the parties, or the Lawsuit. In the Lawsuit, the software company claims that warning letters that Magic Software sent to its clients in Israel and abroad, warning those clients against the possibility that the conversion procedure offered by the software company may result “in an infringement of Magic Software’s copyrights, or the Warning Letters, as well as other alleged actions, have caused the software company damages resulting from loss of potential business. The Lawsuit is based on rulings given in the First Arbitration proceeding that was held between the parties in which it was decided that the Warning Letters constituted a breach of a non-disclosure agreement signed by the parties, and upon damages that were awarded to the software company for the years 2009-2010. The software company claims that it was granted permission in the First Arbitration to seek damages relating to the years 2011 onwards in separate proceedings.

On January 23, 2017, Magic Software filed its statement of defense, maintaining, on various grounds, that the Lawsuit must be rejected, both in limine and on its merits. The software company filed its response on April 2, 2017. Both



sides have submitted witness statements, as well as expert opinions relating to both financial issues, technical issues and Google Ads issues.

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In view of the nature of the claims - both factual and legal - that were raised in the proceedings; in view of the likelihood of an expert-based ruling; and given the stage of the proceedings, where the witnesses and experts are yet to be cross-examined, it is impossible to properly evaluate the prospect of the Lawsuit being successful.”

*Collection Proceeding Against Customer*

In February 2018, Comm-IT Ltd., a subsidiary of Magic Software commenced an action against one of its customers for payment of an overdue amount in the Supreme Court of the State of New York, New York County. In April 2018, the customer filed an answer in the action that included counterclaims asserting causes of action for breach of contract, fraud, and trespass to chattel. Based on our review of the allegations asserted in the counterclaims, it appears that the allegations do not have merit.

*Legal Proceedings related to Sapiens:*

*Dispute with Significant Client*

As disclosed previously, in 2017, Sapiens was involved in a dispute with a significant customer under a software development project agreement, which agreement provided for the customizing, enhancement and implementation of a new product. The customer alleged that Sapiens had materially breached our agreement with the customer. After carefully examining the customer’s allegations, Sapiens informed the customer that it had not materially breached any of its obligations under the agreement and that the customer had itself materially breached the agreement. Work on the project was canceled due to the dispute.

Following discussions between the parties, in the second quarter of 2017, Sapiens entered into a settlement agreement with the customer, under which the software development project agreement was terminated. Pursuant to the settlement agreement, the customer paid Sapiens a settlement amount and the customer retained a nonexclusive, perpetual, royalty-free license to use the software product in certain territories, subject to payment to Sapiens of an agreed-upon maintenance fee. The agreement furthermore confirmed the respective ownership rights of the parties in the intellectual property related to the product that had been jointly developed, including Sapiens’ ownership of the subject software. As agreed, Sapiens has the right to commercialize and sell licenses to certain components of the developed product, without limitation subject to its payment of royalties to the customer on certain initial sales of licenses to those components. The settlement agreement furthermore called for Sapiens and the customer to endeavor to meet once every 12 months to discuss the relationship between the parties and the current status of certain development and marketing efforts made by Sapiens.

*Dispute with Former Client*

In November 2017, Sapiens wholly-owned subsidiary settled a dispute with a customer, related to a claim filed by such customer in an Amsterdam court, pursuant to which the action was dismissed and Sapiens subsidiary paid approximately \$0.9 million, constituting the deductible for its insurance policy coverage for the customer's claim.

*Legal Proceedings related to Matrix:*

On February 26, 2017, a bill of indictment was submitted by the Israeli Antitrust Authority against a subsidiary of Matrix and against a junior employee of such subsidiary, claiming that the junior employee and as follows the subsidiary were allegedly a party in a binding agreement and also by "obtaining by fraud", in one indictment regarding a tender of \$360.

Other than the foregoing, we are not involved in any proceedings in which any of our directors, members of our senior management or any of our affiliates is either a party adverse to us or to our subsidiaries or has a material interest adverse to us or to our subsidiaries. Other than the foregoing, we are also not involved in any proceedings which may have, or have had in the recent past, significant effects on our financial position or profitability, except as described below.

*Dividend Policy*

*Formula*

Under Formula's dividend policy adopted by our board of directors, sums that are not planned to be used for investments in the near future may be distributed to its shareholders as a cash dividend, to the extent that our performance allows such distribution. In the three most recent fiscal years, Formula has made the following distributions:

In September 2017, Formula declared a cash dividend to its shareholders, which was paid in November 2017, of \$0.34 per share. The aggregate amount distributed by Formula was approximately \$5.0 million.

In December 2016, Formula declared a cash dividend to its shareholders, to be paid in January 2017, of \$0.48 per share. The aggregate amount distributed by Formula was approximately \$7.1 million.

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In June 2016, Formula declared a cash dividend to its shareholders, to be paid in July 2016, of \$0.34 per share. The aggregate amount distributed by Formula was approximately \$5.0 million.

In January 2016, Formula declared a cash dividend to its shareholders, to be paid in February 2016, of \$0.34 per share. The aggregate amount distributed by Formula was approximately \$5.0 million.

In June 2015, Formula declared a cash dividend to its shareholders, to be paid in August 2015, of \$0.34 per share. The aggregate amount distributed by Formula was approximately \$5.0 million.

In December 2014, Formula declared a cash dividend to its shareholders, to be paid in February 2015, of \$0.535 per share. The aggregate amount distributed by Formula was approximately \$7.9 million.

*Magic Software*

In September 2012, Magic Software's board of directors also adopted a policy for distributing dividends, under which Magic Software will distribute a dividend of up to 50% of its annual distributable profits each year, subject to any applicable law. It is possible that Magic Software's board of directors will decide, subject to the conditions stated above, to declare additional dividend distributions. Magic Software's board of directors may at its discretion and at any time, change, whether as a result of a one-time decision or a change in policy, the rate of dividend distributions or determine not to distribute a dividend.

On August 9, 2017 Magic Software's board of directors amended Magic Software's dividend policy under which Magic Software will distribute a dividend of up to 75% of its annual distributable profits each year, subject to any applicable law.

*Matrix*

In August 2010, Matrix's board of directors decided to change Matrix's dividend distribution policy whereby every year, Matrix will distribute a dividend at a rate of 75% (instead of 50% before) of its annual net income. The dividend is to be distributed on a quarterly basis.

Under Israeli law, dividends may be paid by an Israeli company only out of profits and other surplus as calculated under Israeli law, as of the end date of the most recent financial statements or as accrued over a period of two years, whichever amount is greater, and provided that there is no reasonable concern that payment of a dividend will prevent the company from satisfying its existing and foreseeable obligations as they become due. See “Item 10. Additional Information—Memorandum and Articles of Association—Dividend and Liquidation Rights” below for more information.

## **B. Significant Changes**

Since the date of our consolidated financial statements included in this annual report, there has not been a significant change in our company.

Table of Contents**ITEM 9. THE OFFER AND LISTING****A. Offer and Listing Details***Price Range of Ordinary Shares*

The following table sets forth, for the periods indicated, the reported high and low closing sale prices of our ordinary shares on the TASE in NIS and U.S. dollars. U.S. dollar per ordinary share amounts are calculated using the U.S. dollar representative rate of exchange as reported by the Bank of Israel on each respective date.

	NIS		U.S.\$	
	Price Per Ordinary Share	Price Per Ordinary Share	Price Per Ordinary Share	Price Per Ordinary Share
	High	Low	High	Low
Annual:				
2018 (through April 26, 2018)	157.60	116.10	45.73	31.84
2017	163.80	126.60	42.62	35.27
2016	163.10	92.33	42.29	23.18
2015	136.2	81.00	35.57	20.57
2014	114.10	83.70	33.79	21.02
2013	94.99	57.89	26.64	16.22
Quarterly:				
Second Quarter 2018 (through April 26, 2018)	136.90	124.00	38.91	34.65
First Quarter 2018	157.60	116.10	42.41	31.84
Fourth Quarter 2017	154.80	140.00	44.22	39.85
Third Quarter 2017	152.50	126.60	43.39	35.27
Second Quarter 2017	159.70	129.00	44.29	36.64
First Quarter 2017	163.80	139.20	42.56	36.76
Fourth Quarter 2016	163.10	141.40	42.29	37.09
Third Quarter 2016	157.70	119.60	41.85	30.84
Second Quarter 2016	133.30	114.00	34.60	30.04
First Quarter 2016	124.9	92.33	32.01	23.18
Most Recent Six Months:				
March 2018	131.80	116.10	37.51	31.84
February 2018	149.50	122.10	43.62	34.64
January 2018	157.60	145.00	45.73	42.31
December 2017	150.80	141.40	43.23	40.18

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November 2017	154.80	140.00	44.22	39.85
October 2017	150.00	141.00	42.84	39.93



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The following table sets forth, for the periods indicated, the reported high and low closing sale prices of our ADSs on the NASDAQ Global Select Market in U.S. dollars.

	U.S.\$	
	Price Per ADS	
	High	Low
Annual:		
2018 (through April 26, 2018)	45.65	33.52
2017	44.20	35.52
2016	42.95	23.54
2015	35.64	20.47
2014	33.79	21.02
2013	26.64	16.22
Quarterly:		
Second Quarter 2018 (through April 26, 2018)	37.29	33.52
First Quarter 2018	45.65	34.50
Fourth Quarter 2017	43.10	37.42
Third Quarter 2017	43.10	35.52
Second Quarter 2017	44.20	36.30
First Quarter 2017	42.70	36.40
Fourth Quarter 2016	42.95	36.30
Third Quarter 2016	42.20	31.05
Second Quarter 2016	34.00	30.00
First Quarter 2016	32.29	23.54
Most Recent Six Months:		
March 2018	38.00	34.50
February 2018	43.00	34.62
January 2018	45.65	41.60
December 2017	42.50	37.42
November 2017	42.10	40.05
October 2017	43.10	40.20

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**B. Plan of Distribution**

Not applicable.

**C. Markets**

Since our initial public offering in 1991, our ordinary shares have been traded in Israel on the TASE under the symbol "FORT." No U.S. trading market exists for the ordinary shares. Since October 1997, our ADSs have been traded on the NASDAQ Global Select Market, under the symbol "FORTY."

**D. Selling Shareholders**

Not applicable.

**E. Dilution**

Not applicable.

**F. Expenses of the Issue**

Not applicable.

**ITEM 10. ADDITIONAL INFORMATION**

**A. Share Capital**

Not applicable.

**B. Memorandum and Articles of Association**

We are registered with the Israeli Companies Registrar under the number 52-003669-0. Our objects are specified in our memorandum of association. These objects include:

operating within the field of informational and computer systems;  
providing management, consulting and sale services for computers, computer equipment, software for computers and for information systems;  
operating a business of systems analysis, systems programming and computer programming; and  
establishing facilities for instruction and training for computers and digital systems.

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***Description of Our Share Capital***

Our company's authorized share capital consists solely of ordinary shares. No preferred shares are currently authorized. Our articles do not restrict in any way the ownership of our ordinary shares by non-residents of Israel, except that these restrictions may exist with respect to citizens of countries which are in a state of war with Israel.

***Dividend and Liquidation Rights***

Our board of directors is authorized to declare dividends, subject to the provisions of the Companies Law. Dividends on our ordinary shares may be paid only out of profits and other surplus, as defined in the Companies Law, as of the end date of the most recent financial statements or as accrued over a period of two years, whichever amount is greater. Alternatively, if we do not have sufficient profits or other surplus, we may seek permission to effect a distribution by order of an Israeli court. In any event, our board of directors is authorized to declare dividends, provided there is no reasonable concern that a dividend will prevent us from satisfying our existing and foreseeable obligations as they become due. Dividends may be paid in cash or in kind. We may invest or use for our own benefit all unclaimed dividends. If a dividend remains unclaimed for seven years from the date on which we declared it, it lapses and reverts back to us. Our board of directors can nevertheless cause us to pay the dividend to a holder who would have been entitled had the dividend not reverted back to us. In case of the liquidation of our company, after satisfying liabilities to creditors, our assets will be distributed to the holders of ordinary shares in proportion to their holdings. This right may be affected by the grant of a preferential dividend or distribution rights to the holders of a class of shares with preferential rights that may be authorized in the future. Under the Companies Law, the declaration of a dividend does not require the approval of the shareholders of the company, unless the company's articles of association require otherwise. Our articles provide that our board of directors may declare and pay dividends without any action required by our shareholders.

***Redemption Provisions***

In accordance with our articles, we may issue redeemable shares and accordingly redeem those shares.

***Voting, Shareholder Meetings and Resolutions***

Holders of our ordinary shares are entitled to one vote for each ordinary share held on all matters submitted to the vote of shareholders. These voting rights may be affected by the grant of any special voting rights to the holders of a class

of shares with preferential rights that may be authorized in the future. Under the Companies Law, shares held by our company are not entitled to any rights so long as they are held by the company.

Under the Companies Law and our articles, we must hold an annual general meeting of our shareholders once a year with a maximum period of fifteen months between the meetings, while under NASDAQ listing rule 5620(a), we must hold the meeting within one year after our fiscal year-end (which is December 31st). All meetings of shareholders other than annual general meetings are considered special general meetings. Our board of directors may call a special general meeting whenever it decides it is appropriate. In addition, shareholders representing 5% of the outstanding share capital may require the board of directors to call a special general meeting. Under our articles, the quorum required for a general meeting of shareholders consists of two or more holders present in person or by proxy who hold or represent at least 25% of the voting power. We have opted out of the NASDAQ listing rule 5620(c) requirement that a quorum must constitute at least 33.33% of our outstanding share capital (see “Item 16G. Corporate Governance” below). A meeting adjourned for a lack of a quorum generally is adjourned to the same day in the following week at the same time and place or any time and place as the chairman of the meeting may decide with the consent of the holders of a majority of the voting power represented at the meeting in person or by proxy and voting on the question of adjournment. At the reconvened meeting, if a quorum is not present within one-half hour from the time designated for holding the meeting, the required quorum will consist of two shareholders present in person or by proxy, regardless of the percentage of our outstanding ordinary shares or voting power held by them.

Under the Companies Law, unless otherwise provided in the articles or applicable law (including the Companies Law), all resolutions of the shareholders require a simple majority. Those matters that constitute exceptions to the simple majority approval rule under the Companies Law are described below in this Item 10.B under “—Approval of Certain Transactions Under the Companies Law.”

#### *Approval of Certain Transactions Under the Companies Law*

The Companies Law codifies the fiduciary duties that office holders, including directors and executive officers, owe to a company. An office holder’s fiduciary duties consist of a duty of care and a duty of loyalty. The duty of loyalty includes (i) avoiding any conflict of interest between the office holder’s position in the company and his or her personal affairs, (ii) avoiding any competition with the company, (iii) avoiding exploiting any business opportunity of the company in order to receive personal advantage for himself or others, and (iv) revealing to the company any information or documents relating to the company’s affairs which the office holder has received due to his or her position as an office holder.

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The Companies Law requires that an office holder of a company promptly disclose any personal interest that he or she may have and all related material information known to him or her, in connection with any existing or proposed transaction by the company. An interested office holder's disclosure must be made promptly and in any event no later than the first meeting of the board of directors at which the transaction is considered. A personal interest, as defined under the Companies Law, includes any personal interest held by the office holder's spouse, siblings, parents, grandparents or descendants; spouse's descendants, siblings or parents; and the spouses of any of the foregoing, and also includes any interest held by any corporation in which the office holder owns 5% or more of the share capital, is a director or general manager or in which he or she has the right to appoint at least one director or the general manager. A personal interest furthermore includes the personal interest of a person for whom the office holder holds a voting proxy or the interest of the office holder with respect to his or her vote on behalf of the shareholder for whom he or she holds a proxy even if such shareholder itself has no personal interest in the approval of the matter.

Under the Companies Law, an extraordinary transaction is defined as a transaction not in the ordinary course of business, not on market terms, or that is likely to have a material impact on the company's profitability, assets or liabilities.

If it is determined that an office holder has a personal interest in a transaction, approval by the board of directors is required for the transaction, unless the company's articles of association provide for a different method of approval. Further, so long as an office holder has disclosed his or her personal interest in a transaction, the board of directors may approve an action by the office holder that would otherwise be deemed a breach of his or her duty of loyalty. However, a company may not approve a transaction or action that is not in the company's interest or that is not performed by the office holder in good faith. An extraordinary transaction in which an office holder has a personal interest requires approval first by the company's audit committee and subsequently by the board of directors. The compensation of, or an undertaking to indemnify or insure, an office holder who is not a director requires approval first by the company's compensation committee, then by the company's board of directors. If such compensation arrangement or an undertaking to indemnify or insure is inconsistent with the company's stated compensation policy, or if the office holder is the chief executive officer (apart from a number of specific exceptions), then such arrangement is further subject to a Special Majority Approval for Compensation. Arrangements regarding the compensation, indemnification or insurance of a director require the approval of the compensation committee, board of directors and shareholders by ordinary majority, in that order, and under certain circumstances, a Special Majority Approval for Compensation.

An office holder who has a personal interest in a matter that is considered at a meeting of the board of directors or the audit committee may not be present at the meeting or vote on the matter, subject to certain exceptions, including an allowance for him or her to be present in order to present the transaction, if the chairman of the audit committee or board of directors (as applicable) determines that such presentation by him or her is necessary. If the majority of the board members or members of the audit committee, as applicable, have a personal interest in a transaction, they may all be present for the presentation of, and voting upon, the transaction, but it must also then be approved by the shareholders of the company.

The Companies Law applies the same disclosure requirements to a controlling shareholder of a public company, which includes a shareholder that holds 25% or more of the voting rights in the company if no other shareholder owns more than 50% of the voting rights in the company. Extraordinary transactions with a controlling shareholder or in which a controlling shareholder has a personal interest, or a transaction with a controlling shareholder or his or her relative, directly or indirectly, including for receipt of services from an entity controlled by him or her (or his or her relative), and the terms of engagement and compensation of a controlling shareholder who is an office holder or an employee of the company, require the approval of the audit committee, the board of directors and the shareholders of the company. The shareholder approval must include the holders of a majority of the shares held by all shareholders who have no personal interest in the transaction and are voting on the subject matter (with abstentions being disregarded) or, alternatively, the total shares of shareholders who have no personal interest in the transaction and who vote against the transaction must not represent more than two percent (2%) of the voting rights in the company. To the extent that any such transaction with a controlling shareholder is for a period extending beyond three years, approval is required once every three years, unless the audit committee determines that the duration of the transaction is reasonable given the circumstances related thereto. In certain cases provided in regulations promulgated under the Companies Law, shareholder approval is not required.

The approvals of the board of directors and shareholders are required for a private placement of securities (or a series of related private placements during a 12-month period or that are part of one continuous transaction or transactions conditioned upon each other) in which:

the securities issued represent at least 20% of the company's actual voting power prior to the issuance of such securities, and such issuance increases the relative holdings of a 5% shareholder or causes any person to become a 5% shareholder, and the consideration in the transaction (or a portion thereof) is not in cash or in securities listed on a recognized stock exchange, or is not at a fair market value; or  
a person would become, as a result of such transaction, a controlling shareholder of the company.

Further, under the Companies Law (as described under "Item 6. Directors, Senior Management and Employees— Board Practices— External Directors Under the Companies Law"), the appointment of external directors requires, in addition to a majority of the ordinary shares voting and approving the appointment, that either (a) the approving majority must include a majority of the shares of shareholders that are not controlling shareholders of the company and who do not have a personal interest in the election of the external director (other than a personal interest not deriving from a relationship with a controlling shareholder) and who are present and voting (with abstentions being disregarded), or (b) the shares of such non-controlling, non-interested shareholders that vote against the appointment may not constitute more than two percent (2%) of our total voting rights. In addition, as described below (see "—Modification of Class Rights" in this Item 10.B), under our articles, the alteration of the rights, privileges, preferences or obligations of any class of our share capital requires a simple majority of the class so affected), in addition to the ordinary majority of all classes of shares voting together as a single class at a shareholder meeting.

A further exception to the simple majority shareholder vote requirement is a resolution for the voluntary winding up, or other reorganization of, the company pursuant to Section 350 of the Companies Law, which requires the approval of holders of 75% of the voting rights represented at the meeting, in person, by proxy or by voting deed and voting on the resolution, provided that such shareholders constitute more than 50% of the shareholders voting on such matter.





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***Shareholder Duties***

Under the Companies Law, a shareholder has a duty to act in good faith towards the company in which he holds shares and towards other shareholders and to refrain from abusing his power in the company including voting in the general meeting of shareholders on:

any amendment to the articles of association;  
an increase of the company's authorized share capital;  
a merger; or  
approval of actions of office holders in breach of their duty of loyalty and of interested party transactions.

A shareholder has the general duty to refrain from depriving rights of other shareholders. Any controlling shareholder, any shareholder who knows that it possesses the power to determine the outcome of a shareholder vote and any shareholder that, under the provisions of the articles of association, has the power to appoint an office holder in the company, is under a duty to act in fairness towards the company. The rules pertaining to a breach of contract apply to a breach of the duty to act in fairness, mutatis mutandis, bringing into account the shareholder's position in the company. The Companies Law does not describe the substance of this duty.

***Transfer of Shares***

Fully paid ordinary shares are issued in registered form and may be freely transferred under our articles unless the transfer is restricted or prohibited by another instrument.

***Modification of Class Rights***

Under our articles, the rights attached to any class unless otherwise provided by the terms of the class including voting, rights to dividends and the like, may be varied by adoption of the necessary amendment to the articles, provided that the affected shareholders approve the change by a class meeting in which a simple majority of the voting power of the class represented at the meeting and voting on the matter approves the change.

***Election of Directors***

Our ordinary shares do not have cumulative voting rights in the election of directors. As a result, the holders of ordinary shares that represent more than 50% of the voting power represented at a shareholders meeting and voting on the matter (disregarding abstentions), have the power to elect all of our directors, other than the external directors who are appointed by a special majority of shareholders. For a summary of the provisions of our articles that govern our directors, see “Item 6. Directors, Senior Management and Employees.”

### ***Anti-Takeover Provisions; Mergers and Acquisitions Under Israeli Law***

#### *Mergers*

The Companies Law permits merger transactions if approved by each party’s board of directors and shareholders. In order for shareholder approval to be obtained for a merger, a majority of the shares present and voting, excluding shares held by the other party to the merger, or by any person holding at least 25% of the means of control of the other party to the merger, or anyone acting on behalf of either of them, including any of their affiliates, must be voted in favor of the merger. If, however, the merger involves a merger with a company’s own controlling shareholder or if the controlling shareholder has a personal interest in the merger, then the merger is instead subject to the same special majority approval that governs all extraordinary transactions with controlling shareholders (as described above in this Item 10 under “—Approval of Certain Transactions Under the Companies Law”). In the event that the merger transaction has not been approved by either of the above-described special majorities (as applicable), the holders of at least 25% of the voting rights of the company may apply to a court for approval of the merger. The court may approve the merger if it is found that the merger is fair and reasonable, taking into account the value of the parties to the merger and the consideration offered to the shareholders. Upon the request of a creditor of either party to the proposed merger, the court may delay or prevent the merger. A merger may not be consummated unless at least 50 days have passed from the time that a proposal for approval of the merger has been filed with the Israeli Registrar of Companies and 30 days have passed from the date of the approval of the shareholders of the merging companies.

The Companies Law further provides that the foregoing approval requirements will not apply to shareholders of a wholly-owned subsidiary in a rollup merger transaction, or to the shareholders of the acquirer in a merger or acquisition transaction if:

the transaction does not involve an amendment to the acquirer’s memorandum or articles of association;  
the transaction does not contemplate the issuance of more than 20% of the voting rights of the acquirer which would result in any shareholder becoming a controlling shareholder; and  
there is no “cross ownership” of shares of the merging companies, as described above.

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*Tender Offers*

The Companies Law provides that an acquisition of shares of a public company must be made by means of a tender offer if as a result of the acquisition, the purchaser would become a holder of 25% or more of the voting rights in the company. This rule does not apply if there is already another holder of 25% or more of the voting rights in the company. Similarly, the Companies Law provides that an acquisition of shares in a public company must be made by means of a tender offer if as a result of the acquisition the purchaser would become a holder of more than 45% of the voting rights of the company, if there is no other holder of more than 45% of the voting rights of the company.

The foregoing provisions do not apply to:

a private placement in which the company's shareholders approved such holder owning 25% or more of the voting rights in the company (if there is no other shareholder that holds 25% or more of the voting rights in the company); or more than 45% of the voting rights in the company (if there is no other shareholder that holds more than 45% of the voting rights in the company); or  
a purchase from an existing holder of 25% or more of the voting rights in the company that results in another person becoming a holder of 25% or more of the voting rights in the company or a purchase from an existing holder of more than 45% of the voting rights in the company that results in another person becoming a holder of more than 45% of the voting rights in the company.

Regulations adopted under the Companies Law provide that these tender offer requirements do not apply to companies whose shares are listed for trading only outside of Israel or have been publicly offered only outside of Israel if, according to the law in the country in which the shares are traded, including the rules and regulations of the stock exchange on which the shares are traded, there is either a limitation on acquisition of any level of control of the company, or the acquisition of any level of control requires the purchaser to do so by means of a tender offer to the public.

The Companies Law also provides that if following any acquisition of shares, the acquirer holds 90% or more of the company's shares or of a class of shares, the acquisition must be made by means of a tender offer for all of the target company's shares or all of the shares of the class, as applicable, not held by the acquirer. An acquirer who wishes to eliminate all minority shareholders must do so by way of a tender offer and hold, following consummation of the tender offer, more than 95% of all of the company's outstanding shares (and provided that a majority of the offerees that do not have a personal interest in such tender offer shall have approved it, which condition shall not apply if, following consummation of the tender offer, the acquirer holds at least 98% of all of the company's outstanding shares). If, however, following consummation of the tender offer the acquirer would hold 95% or less of the company's outstanding shares, the acquirer may not acquire shares tendered if by doing so the acquirer would own more than 90% of the shares of the target company. Appraisal rights are available with respect to a successfully completed full tender offer for a period of six months after such completion, although the acquirer may provide in the tender offer

documents that a shareholder that accepts the offer may not seek appraisal rights.

### **C. Material Contracts**

Please see “Item 5. Operating and Financial Review and Prospects—B. Liquidity and Capital Resources—Company Commitments” for a description of our loan agreement with an Israeli institutional investor and the terms of the trust agreements to which we are party in connection with the Debentures that we issued in September 2015 and in January 2018. Please see “Item 6. Directors, Senior Management and Employees—B. Compensation—Option Grants to, and Service Agreement with, Chief Executive Officer” for a description of our service agreement with our Chief Executive Officer, Mr. Guy Bernstein. Beyond those agreements, Formula is not party to, and has not been party to in the last two years, any material contract entered into outside of its ordinary course of business. In addition, while our subsidiaries are party and have been party in the last two years to numerous contracts with customers, resellers and distributors, such contracts are entered into in the ordinary course of business. Furthermore, we do not deem any other individual contract entered into by any of our subsidiaries outside of the ordinary course of business (such as investment or acquisition agreements) during the last two years to be material to us, except as described below.

#### *Share Purchase Agreement for Acquisition of StoneRiver*

In the first quarter of 2017, Sapiens entered into a share purchase agreement with StoneRiver Group L.P., or the StoneRiver Seller, and StoneRiver, Inc., or StoneRiver, for the acquisition of all of the issued and outstanding share capital of StoneRiver. Sapiens consummated the acquisition later in the first quarter of 2017. StoneRiver is a Denver, Colorado- based provider of technology solutions and services to the insurance industry. The acquisition consideration was approximately \$100 million in cash, subject to certain adjustments based on working capital, transaction expenses, unpaid debt and certain litigation matters.

Immediately prior to closing, Sapiens purchased a representations and warranties insurance policy covering certain indemnifiable damages under the agreement, which we refer to as the StoneRiver Insurance. The StoneRiver Insurance provides for coverage of \$12,500,000 in the aggregate and its term is in general three years (except with respect to certain fundamental representations and warranties, as to which the term of the StoneRiver Insurance is six years). In addition, two escrow funds were established by StoneRiver, for the purpose of enabling the indemnification of Sapiens for certain damages that are not fully recovered under the StoneRiver Insurance: (i) an escrow fund in the amount of \$500,000 for a period of one year and (ii) an escrow fund in the amount of \$2,000,000 for a period of 18 months.

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**D. Exchange Controls**

Under current Israeli regulations, we may pay dividends or other distributions in respect of our ordinary shares either in Israeli or non-Israeli currencies. If we make these payments in Israeli currency, they will be freely converted, transferred and paid in non-Israeli currencies at the rate of exchange prevailing at the time of conversion. We expect, therefore, that dividends, if any, that we pay to holders of ADSs, will be paid in dollars, net of conversion expenses, expenses of the depository for our ADSs, the Bank of New York Mellon, and Israeli income taxes (if applicable). Because exchange rates between the NIS and the dollar fluctuate continuously, a U.S. shareholder will be subject to the risk of currency fluctuations between the date when we declare NIS-denominated dividends and the date when we pay them in NIS. See “Item 3. Key Information—Risk Factors.”

Non-residents of Israel may freely hold and trade our ADSs or ordinary shares pursuant to the general permit issued under the Israeli Currency Control Law, 1978. Neither our articles nor the laws of the State of Israel restrict in any way the ownership of our ordinary shares by non-residents, except that these restrictions may exist with respect to citizens of countries that are in a state of war with Israel.

**E. Taxation**

*The following is a short summary of the material provisions of the tax environment to which shareholders may be subject. This summary is based on the current provisions of tax law. To the extent that the discussion is based on new tax legislation that has not been subject to judicial or administrative interpretation, we cannot assure you that the views expressed in the discussion will be accepted by the appropriate tax authorities or the courts.*

*The summary does not address all of the tax consequences that may be relevant to all holders of our ordinary shares and ADSs in light of each holder’s particular circumstances and specific tax treatment. For example, the summary below does not address the tax treatment of residents of Israel and traders in securities who are subject to specific tax regimes. As individual circumstances may differ, holders of our ordinary shares and ADSs should consult their own tax adviser as to the United States, Israeli or other tax consequences of the purchase, ownership and disposition of ordinary shares and ADSs. The following is not intended, and should not be construed, as legal or professional tax advice and is not exhaustive of all possible tax considerations. Each individual should consult his or her own tax or legal adviser.*

***Israeli Taxation Considerations for Our Shareholders***

***Tax Consequences Regarding Disposition of Our ADSs or Ordinary Shares***

Israeli law generally imposes a capital gain tax on the sale of any capital assets by residents of Israel, as defined for Israeli tax purposes, and on the sale of assets located in Israel, including shares of Israeli companies, by both residents and non-residents of Israel, unless a specific exemption is available or unless a tax treaty between Israel and the shareholder's country of residence provides otherwise. The Tax Ordinance distinguishes between "Real Capital Gain" and "Inflationary Surplus". The Inflationary Surplus is a portion of the total capital gain which is equivalent to the increase of the relevant asset's purchase price which is attributable to the increase in the Israeli consumer price index or, in certain circumstances, a foreign currency exchange rate, between the date of purchase and the date of sale. The Real Capital Gain is the excess of the total capital gain over the Inflationary Surplus.

#### *Israeli Resident Individuals*

As of January 1, 2006, the tax rate applicable to Real Capital Gain derived by Israeli individuals from the sale of shares which had been purchased on or after January 1, 2003, whether or not listed on a stock exchange, is 20%, unless such shareholder claims a deduction for interest and linkage differences expenses in connection with the purchase and holding of such shares, in which case the gain will generally be taxed at a rate of 25%. Additionally, if such shareholder is considered a Substantial Shareholder (i.e., a person who holds, directly or indirectly, alone or together with such person's relative or another person who collaborates with such person on a permanent basis, 10% or more of any of the company's "means of control" (including, among other things, the right to receive profits of the company, voting rights, the right to receive the company's liquidation proceeds and the right to appoint a director)) at the time of sale or at any time during the preceding 12-month period, such gain will be taxed at the rate of 25%. Individual shareholders dealing in securities in Israel are taxed at their marginal tax rates applicable to business income (up to 50% in 2017).

Notwithstanding the foregoing, pursuant to the Law for Change in the Tax Burden (Legislative Amendments) (Taxes), 2011, the capital gain tax rate applicable to individuals was raised from 20% to 25% from 2012 and onwards (or from 25% to 30% if the selling individual shareholder is a Substantial Shareholder at any time during the 12-month period preceding the sale and/or claims a deduction for interest and linkage differences expenses in connection with the purchase and holding of such shares). With respect to assets (not shares that are listed on a stock exchange) purchased on or after January 1, 2003, the portion of the gain generated from the date of acquisition until December 31, 2011 will be subject to the previous capital gain tax rates (20% or 25%) and the portion of the gain generated from January 1, 2012 until the date of sale will be subject to the new tax rates (25% or 30%).

#### *Israeli Resident Corporations*

Under current Israeli tax legislation, the tax rate applicable to Real Capital Gain derived by Israeli resident corporations from the sale of shares of an Israeli company is the general corporate tax rate. As described above, the corporate tax rate was 24% in 2017, and as of 2018 the corporate tax rate is 23%.



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Israeli capital gain tax is imposed on the disposal of capital assets by a non-Israeli resident if such assets are either (i) located in Israel; (ii) shares or rights to shares in an Israeli resident company; or (iii) represent, directly or indirectly, rights to assets located in Israel, unless a tax treaty between Israel and the seller's country of residence provides otherwise. As mentioned above, Real Capital Gain is generally subject to tax at the corporate tax rate (24% in 2017 and 23% in 2018 and thereafter) if generated by a company or, at the rate of 25% (for assets other than shares that are listed on stock exchange – 20% for the portion of the gain generated up to December 31, 2011) or 30% (for any asset other than shares that are listed on stock exchange – 25% with respect to the portion of the gain generated up to December 31, 2011), if generated if by an individual from the sale of an asset purchased on or after January 1, 2003. Individual and corporate shareholders dealing in securities in Israel are taxed at the tax rates applicable to business income (a corporate tax rate for a corporation and a marginal tax rate of up to 50% for an individual in 2017).

Notwithstanding the foregoing, shareholders that are non-Israeli residents (individuals and corporations) are generally exempt from Israeli capital gain tax on any gains derived from the sale, exchange or disposition of shares publicly traded on the Tel Aviv Stock Exchange or on a recognized stock exchange outside of Israel, provided, among other things, that (i) such gains are not derived through a permanent establishment that the non-Israeli resident maintains in Israel, (ii) the shares were purchased after being listed on a recognized stock exchange, and (iii) with respect to shares listed on a recognized stock exchange outside of Israel, such shareholders are not subject to the Israeli Income Tax Law (Inflationary Adjustments) 5745-1985. However, non-Israeli corporations will not be entitled to the foregoing exemptions if Israeli residents (a) have a controlling interest of more than 25% in such non-Israeli corporation, or (b) are the beneficiaries of or are entitled to 25% or more of the revenues or profits of such non-Israeli corporation, whether directly or indirectly. Such an exemption is not applicable to a person whose gains from selling or otherwise disposing of the shares are deemed to be business income.

In addition, a sale of shares may be exempt from Israeli capital gain tax under the provisions of an applicable tax treaty. For example, under the U.S.-Israel Tax Treaty, which we refer to as the U.S-Israel Treaty, the sale, exchange or disposition of shares of an Israeli company by a shareholder who is a U.S. resident (for purposes of the U.S.-Israel Treaty) holding the shares and is entitled to claim the benefits afforded to such person by the treaty, is generally exempt from Israeli capital gains tax unless either (i) the shareholder holds, directly or indirectly, shares representing 10% or more of the voting capital during any part of the 12-month period preceding such sale, exchange or disposition, subject to certain conditions; (ii) the shareholder, if an individual, has been present in Israel for a period or periods of 183 days or more in the aggregate during the applicable taxable year; (iii) the capital gain arising from such sale is attributable to a permanent establishment of the shareholder which is maintained in Israel under certain terms; (iv) the capital gain arising from such sale, exchange or disposition is attributed to real estate located in Israel; or (v) the capital gains arising from such sale, exchange or disposition is attributed to royalties. In each case, the sale, exchange or disposition of such shares would be subject to Israeli tax, to the extent applicable; however, under the U.S.-Israel Treaty, a U.S. resident would be permitted to claim a credit for the Israeli tax against the U.S. federal income tax imposed with respect to the sale, exchange or disposition, subject to the limitations in U.S. laws applicable to foreign tax credits. The U.S-Israel Treaty does not provide such credit against any U.S. state or local taxes.



In some instances where our shareholders may be liable for Israeli tax on the sale of their ordinary shares, the payment of the consideration may be subject to the withholding of Israeli tax at source. Shareholders may be required to demonstrate that they are exempt from tax on their capital gains in order to avoid withholding at source at the time of sale. Specifically, in transactions involving a sale of all of the shares of an Israeli resident company, in the form of a merger or otherwise, the Israel Tax Authority may require from shareholders who are not liable for Israeli tax to sign declarations in forms specified by this authority or obtain a specific exemption from the Israel Tax Authority to confirm their status as non-Israeli residents, and, in the absence of such declarations or exemptions, may require the purchaser of the shares to withhold taxes at source.

### ***Taxes Applicable to Dividends***

#### *Israeli Resident Shareholders*

*Israeli Resident Individuals.* Israeli residents who are individuals are generally subject to Israeli income tax for dividends paid on our ordinary shares and ADSs (other than bonus shares or share dividends) at 25%, or 30% if the recipient of such dividend is a Substantial Shareholder at the time of distribution or at any time during the preceding 12-month period. However, dividends distributed from taxable income accrued during the benefits period of an AE or BE are subject to withholding tax at the rate of 15% (and 20% with respect to PFE), if the dividend is distributed during the tax benefits period under the Investment Law or within 12 years after such period. An average rate will be set in case the dividend is distributed from mixed types of income (regular and Approved/Benefited/ Preferred income).

*Israeli Resident Corporations.* Generally, Israeli resident corporations are generally exempt from Israeli corporate tax on the receipt of dividends paid on ordinary shares or ADSs so long as the profits out of which the dividends were paid, were derived in Israel. However, dividends distributed from taxable income accrued during the benefits period of an AE or BE are subject to withholding tax at the rate of 15%, if the dividend is distributed during the tax benefit period under the Investment Law or within 12 years after that period.

Table of Contents*Non-Israeli Resident Shareholders*

Non-Israeli residents (whether individuals or corporations) are generally subject to Israeli income tax on the receipt of dividends paid on ordinary shares, like our ordinary shares and ADSs, at the rate of 25% or 30% (if the dividend recipient is a Substantial Shareholder, at the time of distribution or at any time during the preceding 12-month period), or 15% if the dividend is distributed from income attributed to an AE or a BE (and 20% with respect to a PFE). Such dividends are generally subject to Israeli withholding tax at a rate of 25% so long as the shares are registered with a Nominee Company (whether the recipient is a Substantial Shareholder or not), and 15% if the dividend is distributed from income attributed to an AE or a BE (and 20% if the dividend is distributed from income attributed to a PFE), unless a reduced rate is provided under an applicable tax treaty (subject to the receipt in advance of a valid certificate from the Israel Tax Authority allowing for a reduced tax rate). For example, under the U.S.-Israel Treaty, the maximum rate of tax withheld at source in Israel on dividends paid to a holder of our ordinary shares and ADSs who is a U.S. resident (for purposes of the U.S.-Israel Treaty) is 25%. However, generally, the maximum rate of withholding tax on dividends, not generated by our Approved or BEs, as applicable, that are paid to a U.S. corporation holding at least 10% or more of our outstanding voting capital from the start of the tax year preceding the distribution of the dividend through (and including) the distribution of the dividend, is 12.5%, provided that no more than 25% of our gross income for such preceding year consists of certain types of dividends and interest. Notwithstanding the foregoing, dividends distributed from income attributed to an AE or a BE are subject to a withholding tax rate of 15% for such a U.S. corporate shareholder, provided that the condition related to our gross income for the previous year (as set forth in the previous sentence) is met. If the dividend is attributable partly to income derived from an AE, a Benefited Enterprise or a PFE, and partly to other sources of income, the withholding rate will be a mixed rate reflecting the relative portions of the two types of income. U.S. residents who are subject to Israeli withholding tax on a dividend may be entitled to a credit or deduction for U.S. federal income tax purposes in the amount of the taxes withheld, subject to detailed rules contained in United States tax legislation.

A non-Israeli resident who receives dividends from which tax was fully withheld is generally exempt from the obligation to file tax returns in Israel with respect to such income, provided that (i) such income was not generated from business conducted in Israel by the taxpayer, (ii) the taxpayer has no other taxable sources of income in Israel with respect to which a tax return is required to be filed and (iii) the taxpayer is not obliged to pay excess tax (as further explained below).

*Excess Tax*

Individuals who are subject to tax in Israel (whether any such individual is an Israeli resident or non-Israeli resident) are also subject to an additional tax for income exceeding a certain level. For 2016, the rate of such additional tax was 2% on annual taxable income exceeding NIS 810,720, and for 2017 and onwards, the additional tax is at a rate of 3% on annual income exceeding NIS 640,000, which amount is linked to the annual change in the Israeli consumer price index, including, but not limited to, dividends, interest and capital gain.

*Estate and gift tax*

Israeli law presently does not impose estate or gift taxes.

*United States Federal Income Tax Considerations*

The Tax Cuts and Jobs Act of 2017, or the TCJA, which was enacted on December 22, 2017, makes significant changes to the U.S. Internal Revenue Code. Such changes include a reduction in the corporate tax rate and limitations

on certain corporate deductions and credits, among other changes. The application of accounting guidance for various items and the ultimate impact of the TCJA on our business are currently uncertain.

The following is a discussion of the material U.S. federal income tax consequences relating to the purchase, ownership and disposition of the ordinary shares or ADSs by U.S. Holders (as defined below) that hold such ordinary shares or ADSs as capital assets. This discussion is based on the Internal Revenue Code, or the Code, the regulations of the U.S. Department of the Treasury issued pursuant to the Code, or the Treasury Regulations, and administrative and judicial interpretations thereof, all as in effect on the date hereof and all of which are subject to change, possibly with retroactive effect, or to different interpretation. It is also based in part on representations by the depositary and assumes that each obligation under the deposit agreement and any related agreement will be performed in accordance with its terms.

This discussion does not address all of the tax consequences that may be relevant to specific U.S. Holders in light of their particular circumstances or to U.S. Holders subject to special treatment under U.S. federal income tax law (such as banks, insurance companies, tax-exempt entities, retirement plans, regulated investment companies, partnerships, dealers in securities, brokers, real estate investment trusts, certain former citizens or residents of the United States, persons who acquire ordinary shares or ADSs as part of a straddle, hedge, conversion transaction or other integrated investment, persons that have a “functional currency” other than the U.S. dollar, persons that own (or are deemed to own, indirectly or by attribution) 10% or more of our outstanding voting shares or persons that generally mark their securities to market for U.S. federal income tax purposes). This discussion does not address any U.S. state or local or non-U.S. tax consequences or any U.S. federal estate, gift or alternative minimum tax consequences.

As used in this discussion, the term “U.S. Holder” means a beneficial owner of ordinary shares or ADSs that is, for U.S. federal income tax purposes, (i) a citizen or resident of the United States, (ii) a corporation, or other entity taxable as a corporation for U.S. federal income tax purposes, created or organized in or under the laws of the United States, any state thereof, or the District of Columbia, (iii) an estate the income of which is subject to U.S. federal income tax regardless of its source or (iv) a trust with respect to which a court within the United States is able to exercise primary supervision over its administration and one or more U.S. persons have the authority to control all of its substantial decisions, or (v) an electing trust that was in existence on August 19, 1996 and was treated as a domestic trust on that date.

If an entity treated as a partnership for U.S. federal income tax purposes holds ordinary shares or ADSs, the tax treatment of such partnership and each partner thereof will generally depend upon the status and activities of the partnership and such partner. A holder that is treated as a partnership for U.S. federal income tax purposes should consult its own tax advisor regarding the U.S. federal income tax considerations applicable to it and its partners of the purchase, ownership and disposition of ordinary shares or ADSs.

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U.S. Holders of ADSs will be treated as owners of the ordinary shares underlying their ADSs. Accordingly, deposits and withdrawals of ordinary shares in exchange for ADSs will not be taxable events for U.S. federal income tax purposes.

The U.S. Treasury has expressed concerns that parties to whom ADSs are released may be taking actions that are inconsistent with the claiming of foreign tax credits for U.S. Holders of ADSs. Such actions would also be inconsistent with the claiming of the reduced rate of tax, described below, applicable to dividends received by certain non-corporate U.S. Holders. Accordingly, the analysis of the availability of foreign tax credits and the reduced tax rate for dividends received by certain non-corporate U.S. Holders, described below, could be affected by actions taken by parties to whom the ADSs are released.

This summary does not address the effect of any U.S. federal taxation (such as estate and gift tax) other than U.S. federal income taxation. In addition, this summary does not include any discussion of state, local or non-U.S. taxation. You are urged to consult your tax advisors regarding the non-U.S. and U.S. federal, state and local tax consequences of an investment in ordinary shares.

For purposes of this summary, as used herein, the term “U.S. Holder” means a person that is eligible for the benefits of the Treaty and is a beneficial owner of an ordinary share who is, for U.S. federal income tax purposes:

an individual who is a citizen or, for U.S. federal income tax purposes, a resident of the United States;  
a corporation or other entity taxable as a corporation created or organized in or under the laws of the United States or any political subdivision thereof;  
an estate the income of which is subject to U.S. federal income taxation regardless of its source; or  
a trust if such trust has validly elected to be treated as a U.S. person for U.S. federal income tax purposes or if (1) a court within the United States is able to exercise primary supervision over its administration and (2) one or more U.S. persons have the authority to control all of the substantial decisions of such trust.

Unless otherwise specifically indicated, this discussion does not consider the U.S. tax consequences to a person that is not a U.S. holder (which we refer to as a non-U.S. holder) and considers only U.S. holders that will own our ordinary shares as capital assets (generally, for investment).

Furthermore, unless otherwise indicated, this discussion assumes that our company is not, and will not become, a “passive foreign investment company,” or a PFIC, for U.S. federal income tax purposes. See “—Passive Foreign Investment Companies” below.

**Prospective investors should be aware that this discussion does not address the tax consequences to investors who are not U.S. Holders. Prospective investors should consult their own tax advisors as to the particular tax considerations applicable to them relating to the purchase, ownership and disposition of ordinary shares or ADSs, including the applicability of U.S. federal, state and local tax laws and non-U.S. tax laws.**

### *Taxation of Distributions on our Ordinary Shares or ADSs*

Subject to the discussion below under “Tax Consequences if We Are a Passive Foreign Investment Company,” a distribution paid by us with respect to our ordinary shares and ADSs to a U.S. Holder will be treated as dividend income to the extent that the distribution does not exceed our current and accumulated earnings and profits, as determined for U.S. federal income tax purposes.

Dividends that are received by U.S. holders that are individuals, estates or trusts generally will be taxed at the rate applicable to long-term capital gains, provided those dividends meet the requirements of “qualified dividend income.” The maximum long-term capital gains rate is 20% for individuals with annual taxable income that exceeds certain thresholds. In addition, under the Patient Protection and Affordable Care Act, higher income taxpayers must pay an additional 3.8 percent tax on net investment income to the extent certain threshold amounts of income are exceeded. See “Tax on Net Investment Income” in this Item below. For this purpose, qualified dividend income generally includes dividends paid by a foreign corporation if certain holding period and other requirements are met and either (a) the stock of the foreign corporation with respect to which the dividends are paid is “readily tradable” on an established securities market in the U.S. (e.g., the NASDAQ Global Select Market) or (b) the foreign corporation is eligible for benefits of a comprehensive income tax treaty with the U.S. which includes an information exchange program and is determined to be satisfactory by the U.S. Secretary of the Treasury. Dividends that fail to meet such requirements and dividends received by corporate U.S. holders are taxed at ordinary income rates. No dividend received by a U.S. holder will be a qualified dividend (i) if the U.S. holder held the ordinary share and ADS with respect to which the dividend was paid for less than 61 days during the 121-day period beginning on the date that is 60 days before the ex-dividend date with respect to such dividend, excluding for this purpose, under the rules of Code Section 246(c), any period during which the U.S. holder has an option to sell, is under a contractual obligation to sell, has made (and not closed) a short sale of, is the grantor of a deep-in-the-money or otherwise nonqualified option to buy, or has otherwise diminished its risk of loss by holding other positions with respect to, such ordinary share and ADSs (or substantially identical securities); or (ii) to the extent that the U.S. holder is under an obligation (pursuant to a short sale or otherwise) to make related payments with respect to positions in property substantially similar or related to the ordinary share and ADS with respect to which the dividend is paid. If we were to be a “passive foreign investment company” (as such term is defined in the Code), or “PFIC”, for any taxable year, dividends paid on our ordinary shares and ADSs in such year or in the following taxable year would not be qualified dividends. See the discussion below regarding our PFIC status under “Tax Consequences if We Are a Passive Foreign Investment Company.” In addition, a non-corporate U.S. holder will be able to take qualified dividend income into account in determining its deductible investment interest (which is generally limited to its net investment income) only if it elects to do so; in such case the dividend income will be taxed at ordinary income rates.

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The amount of any distribution which exceeds the amount treated as a dividend will be treated first as a non-taxable return of capital, reducing the U.S. holder's tax basis in our ordinary shares and ADSs to the extent thereof, and then as capital gain from the deemed disposition of the ordinary shares and ADSs. Corporate holders will not be allowed a deduction for dividends received in respect of the ordinary shares and ADSs.

Distributions of current or accumulated earnings and profits paid in foreign currency to a U.S. holder will be includible in the income of a U.S. holder in a U.S. dollar amount calculated by reference to the exchange rate on the day the distribution is received. A U.S. holder that receives a foreign currency distribution and converts the foreign currency into U.S. dollars subsequent to receipt may have foreign exchange gain or loss based on any appreciation or depreciation in the value of the foreign currency against the U.S. dollar, which will generally be U.S. source ordinary income or loss.

***Taxation of the Disposition of the Ordinary Shares or ADSs***

Subject to the discussion below under "Tax Consequences if We Are a Passive Foreign Investment Company," upon the sale, exchange or other disposition of our ordinary shares and ADSs, a U.S. holder will recognize capital gain or loss in an amount equal to the difference between the amount realized on the disposition and the U.S. holder's tax basis in our ordinary shares and ADSs. The gain or loss recognized on the disposition of the ordinary shares and ADSs will be long-term capital gain or loss if the U.S. holder held the ordinary shares and ADSs for more than one year at the time of the disposition and would be eligible for a reduced rate of taxation for certain non-corporate U.S. holders. The maximum long-term capital gains rate is 20% for individuals with annual taxable income that exceeds certain thresholds. In addition, under the Patient Protection and Affordable Care Act, higher income taxpayers must pay an additional 3.8 percent tax on net investment income to the extent certain threshold amounts of income are exceeded. See "Tax on Net Investment Income" in this Item below. Capital gain from the sale, exchange or other disposition of ordinary shares and ADSs held for one year or less is short-term capital gain and taxed as ordinary income. Gain or loss recognized by a U.S. holder on a sale, exchange or other disposition of our ordinary shares and ADSs generally will be treated as U.S. source income or loss. The deductibility of capital losses is subject to certain limitations.

A U.S. holder that uses the cash method of accounting calculates the dollar value of the proceeds received on the sale as of the date that the sale settles. However, a U.S. holder that uses the accrual method of accounting is required to calculate the value of the proceeds of the sale as of the trade date and may therefore realize foreign currency gain or loss. A U.S. holder that uses the accrual method may avoid realizing foreign currency gain or loss by electing to use the settlement date to determine the proceeds of sale for purposes of calculating the foreign currency gain or loss. In addition, a U.S. holder that receives foreign currency upon disposition of its ordinary shares and ADSs and converts the foreign currency into dollars after the settlement date or trade date (whichever date the U.S. holder is required to use to calculate the value of the proceeds of sale) may have foreign exchange gain or loss based on any appreciation or depreciation in the value of the foreign currency against the dollar, which will generally be U.S. source ordinary income or loss.

***Tax Consequences if We Are a Passive Foreign Investment Company***

We would be a passive foreign investment company, or PFIC, for a taxable year if either (1) 75% or more of our gross income in the taxable year is passive income; or (2) the average percentage (by value determined on a quarterly basis) in a taxable year of our assets that produce, or are held for the production of, passive income is at least 50%. Passive income for this purpose generally includes, among other things, certain dividends, interest, royalties, rents and gains from commodities and securities transactions and from the sale or exchange of property that gives rise to passive income. If we own (directly or indirectly) at least 25% by value of the stock of another corporation, we would be

treated for purposes of the foregoing tests as owning our proportionate share of the other corporation's assets and as directly earning our proportionate share of the other corporation's income. As discussed below, we believe that we were not a PFIC for 2017.

If we were a PFIC, each U.S. holder would (unless it made one of the elections discussed below on a timely basis) be taxable on gain recognized from the disposition of our ordinary shares and ADSs (including gain deemed recognized if our ordinary shares and ADSs are used as security for a loan) and upon receipt of certain excess distributions (generally, distributions that exceed 125% of the average amount of distributions in respect to such shares received during the preceding three taxable years or, if shorter, during the U.S. holder's holding period prior to the distribution year) with respect to our ordinary shares and ADSs as if such income had been recognized ratably over the U.S. holder's holding period for the shares. The U.S. holder's income for the current taxable year would include (as ordinary income) amounts allocated to the current taxable year and to any taxable year prior to the first day of the first taxable year for which we were a PFIC. Tax would also be computed at the highest ordinary income tax rate in effect for each other taxable year to which income is allocated, and an interest charge on the tax as so computed would also apply. The tax liability with respect to the amount allocated to the taxable year prior to the taxable year of the distribution or disposition cannot be offset by any net operating losses. Additionally, if we were a PFIC, U.S. holders who acquire our ordinary shares and ADSs from decedents (other than nonresident aliens) would be denied the normally-available step-up in basis for such shares to fair market value at the date of death and, instead, would have a tax basis in such shares equal to the lesser of the decedent's basis or the fair market value of such shares on the decedent's date of death.

As an alternative to the tax treatment described above, a U.S. holder could elect to treat us as a "qualified electing fund" (a QEF), in which case the U.S. holder would be taxed, for each taxable year that we are a PFIC, on its pro rata share of our ordinary earnings and net capital gain (subject to a separate election to defer payment of taxes, which deferral is subject to an interest charge). Special rules apply if a U.S. holder makes a QEF election after the first taxable year in its holding period in which we are a PFIC. We have agreed to supply U.S. holders with the information needed to report income and gain under a QEF election if we were a PFIC. Amounts includable in income as a result of a QEF election will be determined without regard to our prior year losses or the amount of cash distributions, if any, received from us. A U.S. holder's basis in its Ordinary Shares and ADSs will increase by any amount included in income and decrease by any amounts not included in income when distributed because such amounts were previously taxed under the QEF rules. So long as a U.S. holder's QEF election is in effect with respect to the entire holding period for its Ordinary Shares and ADSs, any gain or loss realized by such holder on the disposition of its Ordinary Shares and ADSs held as a capital asset generally will be capital gain or loss. Such capital gain or loss ordinarily would be long-term if such U.S. holder had held such Ordinary Shares and ADSs for more than one year at the time of the disposition and would be eligible for a reduced rate of taxation for certain non-corporate U.S. holders. The maximum long-term capital gains rate is 20% for individuals with annual taxable income that exceeds certain thresholds. The QEF election is made on a shareholder-by-shareholder basis, applies to all Ordinary Shares and ADSs held or subsequently acquired by an electing U.S. holder and can be revoked only with the consent of the IRS. The QEF election must be made on or before the U.S. holder's tax return due date, as extended, for the first taxable year to which the election will apply.

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As an alternative to making a QEF election, a U.S. holder of PFIC stock that is “marketable stock” (e.g., “regularly traded” on the NASDAQ Capital Market) may, in certain circumstances, avoid certain of the tax consequences generally applicable to holders of stock in a PFIC by electing to mark the stock to market as of the beginning of such U.S. holder’s holding period for our ordinary shares and ADSs. Special rules apply if a U.S. holder makes a mark-to-market election after the first year in its holding period in which we are a PFIC. As a result of such an election, in any taxable year that we are a PFIC, a U.S. holder would generally be required to report gain or loss to the extent of the difference between the fair market value of the ordinary shares and ADSs at the end of the taxable year and such U.S. holder’s tax basis in such shares and ADSs at that time. Any gain under this computation, and any gain on an actual disposition of our ordinary shares and ADSs in a taxable year in which we are PFIC, would be treated as ordinary income. Any loss under this computation, and any loss on an actual disposition of our ordinary shares and ADSs in a taxable year in which we are PFIC, would be treated as ordinary loss to the extent of the cumulative net-mark-to-market gain previously included. Any remaining loss from marking our ordinary shares and ADSs to market will not be allowed, and any remaining loss from an actual disposition of our ordinary shares and ADSs generally would be capital loss. A U.S. holder’s tax basis in its ordinary shares and ADSs is adjusted annually for any gain or loss recognized under the mark-to-market election. There can be no assurances that there will be sufficient trading volume with respect to our ordinary shares and ADSs for the ordinary shares and ADSs to be considered “regularly traded” or that our ordinary shares and ADSs will continue to trade on the NASDAQ Capital Market. Accordingly, there are no assurances that our ordinary shares and ADSs will be marketable stock for these purposes. As with a QEF election, a mark-to-market election is made on a shareholder-by-shareholder basis, applies to all ordinary shares and ADSs held or subsequently acquired by an electing U.S. holder and can only be revoked with consent of the IRS (except to the extent our ordinary shares and ADSs no longer constitute “marketable stock”).

Based on an analysis of our assets and income, we believe that we were not a PFIC for 2017. We currently expect that we will not be a PFIC in 2018. The tests for determining PFIC status are applied annually and it is difficult to make accurate predictions of future income and assets, which are relevant to this determination. Accordingly, there can be no assurance that we will not become a PFIC in any future taxable years. U.S. holders who hold our ordinary shares and ADSs during a period when we are a PFIC will be subject to the foregoing rules, even if we cease to be a PFIC, subject to certain exceptions for U.S. holders who made QEF, mark-to-market or certain other special elections. U.S. holders are urged to consult their tax advisors about the PFIC rules, including the consequences to them of making a mark-to-market or QEF election with respect to our ordinary shares and ADSs in the event that we qualify as a PFIC.

**U.S. Holders are urged to consult their tax advisors regarding the application of the PFIC rules, including eligibility for and the manner and advisability of making, the QEF election or the mark-to-market election.**

*Tax on Net Investment Income*

A U.S. holder that is an individual or estate, or a trust that does not fall into a special class of trusts that is exempt from the tax, will be subject to a 3.8% tax on the lesser of (1) the U.S. holder’s “net investment income” for the relevant taxable year and (2) the excess of the U.S. holder’s modified adjusted gross income for the taxable year over a certain



threshold (which in the case of individuals will be between \$125,000 and \$250,000, depending on the individual's circumstances). A U.S. holder's net investment income generally will include its dividends on our ordinary shares and ADSs and net gains from dispositions of our ordinary shares and ADSs, unless those dividends or gains are derived in the ordinary course of the conduct of trade or business (other than trade or business that consists of certain passive or trading activities). Net investment income, however, may be reduced by deductions properly allocable to that income. A U.S. holder that is an individual, estate or trust is urged to consult its tax adviser regarding the applicability of the Medicare tax to its income and gains in respect of its investment in our ordinary shares or ADSs.

*Non-U.S. Holders of Ordinary Shares or ADSs*

Except as provided below, a non-U.S. holder of our ordinary shares and ADSs will not be subject to U.S. federal income or withholding tax on the receipt of dividends on, or the proceeds from the disposition of, our ordinary shares and ADSs, unless, in the case of U.S. federal income taxes, that item is effectively connected with the conduct by the non-U.S. holder of a trade or business in the United States and, in the case of a resident of a country which has an income tax treaty with the United States, such item is attributable to a permanent establishment in the United States or, in the case of an individual, a fixed place of business in the United States. In addition, gain recognized on the disposition of our ordinary shares and ADSs by an individual non-U.S. holder will be subject to tax in the United States if the non-U.S. holder is present in the United States for 183 days or more in the taxable year of the sale and certain other conditions are met.

*Information Reporting and Backup Withholding*

A U.S. holder generally is subject to information reporting and may be subject to backup withholding at a rate of up to 28% with respect to dividend payments on, or receipt of the proceeds from the disposition of, our ordinary shares and ADSs. Backup withholding will not apply with respect to payments made to exempt recipients, including corporations and tax-exempt organizations, or if a U.S. holder provides correct taxpayer identification number, certifies that such holder is not subject to backup withholding or otherwise establishes an exemption. Non-U.S. holders are not subject to information reporting or backup withholding with respect to dividend payments on, or receipt of the proceeds from the disposition of, ordinary shares and ADSs in the U.S., or by a U.S. payer or U.S. middleman, provided that such non-U.S. holder provides a taxpayer identification number, certifies to its foreign status, or otherwise establishes an exemption. Backup withholding is not an additional tax and may be claimed as a credit against the U.S. federal income tax liability of a holder, or alternatively, the holder may be eligible for a refund of any excess amounts withheld under the backup withholding rules, in either case, provided that the required information is furnished to the IRS.

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*Information Reporting by Certain U.S. Holders*

U.S. citizens and individuals taxable as resident aliens of the United States that own “specified foreign financial assets” with an aggregate value in a taxable year in excess of \$50,000 (as determined under rules in Treasury regulations) and that are required to file a U.S. federal income tax return generally will be required to file an information report with respect to those assets with their tax returns. IRS Form 8938 has been issued for that purpose. “Specified foreign financial assets” include any financial accounts maintained by foreign financial institutions, foreign stocks held directly, and interests in foreign estates, foreign pension plans or foreign deferred compensation plans. Under those rules, our ordinary shares, whether owned directly or through a financial institution, estate or pension or deferred compensation plan, would be “specified foreign financial assets”. Under Treasury regulations, the reporting obligation applies to certain U.S. entities that hold, directly or indirectly, specified foreign financial assets. Penalties can apply if there is a failure to satisfy this reporting obligation. A U.S. Holder is urged to consult his tax adviser regarding his reporting obligation.

**F. Dividends and Paying Agents**

Not applicable.

**G. Statement by Experts**

Not applicable.

**H. Documents on Display**

Formula is subject to the reporting requirements of the Exchange Act that are applicable to a foreign private issuer. In accordance with the Exchange Act, we file reports with the SEC, including annual reports on Form 20-F by April 30 each year (as of 2018). In addition, we furnish interim financial information on Form 6-K on a quarterly basis. We also furnish to the SEC under cover of Form 6-K certain other material information required to be made public in Israel, filed with and made public by any stock exchange or distributed by us to our shareholders. You may inspect without charge and copy at prescribed rates such material at the public reference facilities maintained by the SEC, at 100 F Street, N.E., Washington, D.C. 20549. You may also obtain copies of such material from the SEC at prescribed rates by writing to the Public Reference Section of the SEC, 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the public reference room.

The SEC maintains an Internet site at <http://www.sec.gov> that contains reports and other material that are filed through the SEC's Electronic Data Gathering, Analysis and Retrieval (EDGAR) system. Formula began filing through the EDGAR system beginning in October 2002. The Exchange Act file number for our SEC filings is 000-29442.

Formula's ADSs are traded on the NASDAQ Global Select Market. You may inspect reports and other information concerning Formula at the offices of the Financial Industry Regulatory Authority, Inc., or FINRA, 9509 Key West Avenue, Rockville, Maryland 20850. Copies of our SEC filings and submissions are also submitted to the Israel Securities Authority, or ISA, and the TASE. Such copies can be retrieved electronically through the MAGNA distribution site of the ISA ([www.magna.isa.gov.il](http://www.magna.isa.gov.il)) and the TASE website ([maya.tase.co.il](http://maya.tase.co.il)).

A copy of each report that we submit in accordance with applicable United States law is available for public review at our principal executive offices, at 5 Haplada Street, Or Yehuda 6021805, Israel. Information about us is also available on our website at <http://www.formulasystems.com>. Such information is not part of this annual report.

### **I.Subsidiary Information**

Not applicable.

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**ITEM 11. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

***Interest Rate and Currency Exchange Rate Fluctuations; Impact of Inflation***

In light of the nature of our activities, we invest our cash and cash equivalents primarily in short-term and long-term deposits. As of December 31, 2017, substantially all of the cash that we held was invested in dollar, Euro, Indian Rupee, and British Pound accounts bearing interest based on LIBOR, and NIS accounts bearing interest based on the Israeli prime rate. Given the current low interest rates in the financial markets, assuming a 10% interest rate decrease, the net decrease in our earnings from our financial assets would be negligible, holding other variables constant.

As described above in this annual report (under “Item 3.D Risk Factors—Risks Related to Operations in Israel—Fluctuations in foreign currency values may affect our business and results of operations” and “Item 5. Operating and Financial Review and Prospects—Operating Results— Impact of Inflation and Currency Fluctuations on Results of Operations”), because most of our software services revenues are received in NIS, a devaluation of the NIS against the dollar adversely impacts our dollar-recorded software services revenues and operating profit, by reducing the dollar-recorded revenues for those software services. Accordingly, a devaluation of the dollar against the NIS positively impacts our dollar-recorded software services revenues and operating profit.

At the same time, a significant portion of our revenues from proprietary software products is currently denominated in dollars and other currencies, particularly Euro and British pound, Indian rupee and to a lesser extent Japanese yen, while a substantial portion of our expenses relating to the proprietary software products, principally salaries and related personnel expenses, is denominated in NIS. As a result, the devaluation of the dollar relative to the NIS increases our operating costs, and, therefore, adversely affects the operational profitability of our proprietary software product reporting segment. An increase in the rate of Israeli inflation compounds this negative impact by further increasing our NIS (and ultimately dollar-recorded) operating expenses, and, consequently, reducing our operational profitability in that business line. Also, the devaluation of these other currencies—particularly Euro, British pound and to a lesser extent Japanese yen—relative to the U.S. dollar reduces our dollar recorded revenues from sales of our proprietary software products and thereby harms our results of operations.

The net effect of these risks stemming from currency exchange rate fluctuations on our operating results can be quantified as follows:

A hypothetical 10% devaluation in foreign currency rates (primarily the NIS, GBP, Euro, Japanese yen, PLN and INR) against the US dollar, with all other variables held constant on the expected sales, would have resulted in a decrease or increase in 2017 sales revenues of approximately \$88.9 million or \$105.9 million, respectively.

In addition, a hypothetical 10% devaluation of the value of the dollar against the NIS in the year ended December 31, 2017 with respect to Series A Secured Debentures issued by Formula in September 2015, and the NIS 200 million loan that was extended to Formula by a leading Israeli institutional investor in January 2014 (each of which is described above under “Item 5.B. Liquidity and Capital Resources”), which remaining principal amounts as of December 31, 2017 were valued at NIS 90.0 million and NIS 131.4 million, respectively, would have resulted in an increase in 2017 financial expenses of approximately \$7.2 million.

Depending upon the circumstances, we will consider entering into currency hedging transactions to decrease the risk of financial exposure from fluctuations in the exchange rate of the dollar, Euro, Japanese yen and/or British Pound against the NIS, or the Euro, Japanese yen and/or British pound against the dollar. There can be no assurance that these activities, or others that we may use from time to time, will eliminate the negative financial impact of currency fluctuations and inflation. We do not—nor do we intend to in the future—engage in currency speculation.

### ***Fluctuations in Market Price of Securities We Hold***

We hold the securities of three subsidiaries— Magic Software, Sapiens and Matrix,— which are companies whose securities are listed for trading on the NASDAQ Global Market, NASDAQ Capital Market and/or the TASE. We consider these holdings as long-term holdings. We are exposed to the risk of fluctuation of the price of these companies’ securities. All of these publicly traded companies have experienced significant historical volatility in their stock prices. Fluctuations in the market price of our holdings in these companies may result in the fluctuation of the value of our assets. We typically do not attempt to reduce or eliminate our market exposure on these securities.

Generally, we do not hold nor have we issued, to any material extent, any derivatives or other financial instruments for trading purposes except for our Series A Secured Debentures and Series B Convertible Debentures issued as part of a public offering in Israel on the TASE in September 2015.

## **ITEM 12. DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES**

### **A. Debt Securities**

Not applicable.

### **B. Warrants and Rights**

Not applicable.

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**C. Other Securities**

Not applicable.

**D. American Depositary Shares**

*Fees and charges payable by our ADS holders*

The Bank of New York Mellon, which we refer to as the Depositary, serves as the depositary for our ADS program. Pursuant to the deposit agreement by and among our company, the Depositary and owners and holders of our ADSs, which we refer to as the Deposit Agreement, ADS holders may be required to pay various fees to the Depositary. In particular, the Depositary may charge the following fees to any party depositing or withdrawing ADSs, or to any party surrendering American Depositary Receipts (which we refer to as ADRs) that represent the ADSs, or to whom ADRs are issued (including, without limitation, issuance pursuant to a stock dividend or stock split declared by us or an exchange of stock involving the ADRs or any deposited ADSs underlying the ADRs or a distribution of ADRs pursuant to a distribution of underlying shares), as applicable: (a) taxes and governmental charges, (b) such registration fees as may from time to time be in effect for the registration of transfers of shares generally on our share register and applicable to transfers of shares to the name of the Depositary or its nominee or agent in connection with making deposits or withdrawals under the Deposit Agreement, (c) such cable, telex and facsimile transmission expenses as are expressly provided for in the Deposit Agreement, (d) such expenses as are incurred by the Depositary in the conversion of foreign currency, (e) a fee of \$5.00 or less per 100 ADSs (or portion thereof) for the execution and delivery of ADRs (including in connection with distributions of shares or rights by us) and in connection with the surrender of receipts and withdrawal of the underlying shares, (f) a fee of \$.02 or less per ADS (or portion thereof) for any cash distribution made pursuant to the Deposit Agreement, including in connection with distributions of shares or rights, (g) a fee for the distribution of securities in connection with certain distributions, such fee being in an amount equal to the fee for the execution and delivery of ADSs which would have been charged as a result of the deposit of such securities but which securities are instead distributed by the Depositary to ADR holders, and (h) any other charges payable by the Depositary or any of its agents in connection with the servicing of ADSs or other deposited securities underlying the ADRs.

*Amounts received from the Depositary*

We do not receive any fees directly or indirectly from the Depositary.

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**PART II**

**ITEM 13. DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES**

None.

**ITEM 14. MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS**

None.

**ITEM 15. CONTROLS AND PROCEDURES**

**Disclosure Controls and Procedures**

Our management, including our Chief Executive Officer, and Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures (as such term is defined in Rules 13a-15(e) and 15d-15(e) of the Exchange Act) as of December 31, 2017. Based on such evaluation, the Chief Executive Officer, and the Chief Financial Officer, have concluded that, as of December 31, 2017, the Company's disclosure controls and procedures are effective.

**Management's Annual Report on Internal Control over Financial Reporting**

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act. Our management, including our Chief Executive Officer and our Chief Financial Officer, conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework and criteria established in Internal Control—Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) as of the end of the period covered by this report. Such evaluation did not cover the internal controls of StoneRiver or



KnowledgePrice since they were first acquired in the first quarter and fourth quarter, respectively, of 2017.

Based on that evaluation, our management has concluded that our internal control over financial reporting was effective as of December 31, 2017. Notwithstanding the foregoing, there can be no assurance that our internal control over financial reporting will detect or uncover all failures of persons within the Company to comply with our internal procedures, as all internal control systems, no matter how well designed, have inherent limitations. Therefore, even those systems determined to be effective may not prevent or detect misstatements.

#### **Attestation Report of the Registered Public Accounting Firm**

The attestation report of Kost Forer Gabbay & Kasierer, a member of EY Global, an independent registered public accounting firm in Israel, on our management's assessment of our internal control over financial reporting as of December 31, 2017 is provided on page F-3, as included under Item 18 of this annual report.

#### **Changes in Internal Control over Financial Reporting**

Based on the evaluation conducted by our Chief Executive Officer and our Chief Financial Officer pursuant to Rules 13a-15(d) and 15d-15(d) under the Exchange Act, our management has concluded that there was no change in our internal control over financial reporting that occurred during the year ended December 31, 2017 that materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

#### **ITEM 16. RESERVED**

#### **ITEM 16A. AUDIT COMMITTEE FINANCIAL EXPERT**

Our board of directors has determined that Ms. Iris Yahal, who serves on the audit committee of our board of directors, qualifies as our "audit committee financial expert," as defined under the rules and regulations of the SEC.

#### **ITEM 16B. CODE OF ETHICS**

We have adopted a code of business conduct and ethics, or code of ethics, applicable to Formula's Chief Executive Officer and Chief Financial Officer (who also serves as its principal accounting officer) and any person performing similar functions, as well as to its directors and other employees. A copy of the code of ethics is available to all of Formula's employees, investors and others without charge, upon request to the following address: Formula Systems (1985) Ltd., 5 Haplada St., Or Yehuda 6021805, Israel, Attn: Chief Executive Officer.

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The chairman of our audit committee may approve a request by our Chief Executive Officer, Chief Financial Officer (who also serves as our principal accounting officer) or any person performing similar functions for a waiver from the requirements of our code of ethics pertaining to (i) honest and ethical conduct, including the ethical handling of actual or apparent conflicts of interest between personal and professional relationship; (ii) full, fair, accurate, timely and understandable disclosure in reports and documents that we must file with, or submit to, the SEC and in other public communications made by us; (iii) compliance with applicable governmental laws, rules and regulations; (iv) the prompt internal reporting of violation of the code of ethics to the chairman of our audit committee; and (v) accountability for adherence to the code of ethics; provided in each case that the person requesting such waiver provides to our audit committee a full disclosure of the particular circumstances relating to such request. The chairman of our audit committee will first determine whether a waiver of the relevant requirements of the code of ethics is required and, if such waiver is required, whether a waiver will be granted. The person requesting such waiver may be required to agree to certain conditions before a waiver or a continuing waiver is granted.

Any amendments to the code of ethics and all waivers from compliance with the code of ethics granted to our Chief Executive Officer, Chief Financial Officer (who also serves as our principal accounting officer) or any person performing similar functions with respect to its requirements described in the above paragraph will be publicly disclosed by us via a report on Form 6-K in accordance with the regulations of the SEC. No such amendment has been adopted, nor waiver provided, by us during the fiscal year ended December 31, 2017.

**ITEM 16C. PRINCIPAL ACCOUNTANT FEES AND SERVICES***Principal Accountant Fees and Services*

Formula and its subsidiaries and affiliate company paid the following fees for professional services rendered by Kost Forer Gabbay & Kasierer, Certified Public Accountant, a member firm of Ernst & Young Global, independent registered public accounting firm (which we refer to as Kost Forer), to the Company for the years ended December 31, 2016 and December 31, 2017, respectively:

	2016	2017
	(U.S. dollars in thousands)	
Audit Fees(1)	1,463	1,707
Tax Fees(2)	404	578
Total	1,867	2,285

(1)

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The audit fees for the years ended December 31, 2016 and 2017 were for professional services rendered for: the audits of our annual consolidated financial statements; agreed-upon procedures related to the review of our consolidated quarterly information; statutory audits of Formula and its subsidiaries and affiliated companies; issuance of comfort letters and consents; and assistance with review of documents filed with the SEC.

- (2) Tax fees for the years ended December 31, 2016 and 2017 were for services related to tax compliance, including the preparation of tax returns and claims for refund, and tax advice.

Formula paid the following fees for professional services rendered by Kost Forer, to the Company (on a stand-alone basis, excluding services provided to the subsidiaries and affiliates of the Company) for the years ended December 31, 2016 and December 31, 2017, respectively:

	2016	2017
	(U.S. dollars in thousands)	
Audit Fees(1)	115	86
Tax Fees(2)	32	101
Total	147	187

The audit fees for the years ended December 31, 2016 and 2017 were for professional services rendered for: the audits of our annual consolidated financial statements; agreed-upon procedures related to the review of our consolidated quarterly information; statutory audits of Formula and its subsidiaries and affiliated companies; issuance of comfort letters and consents; and assistance with review of documents filed with the SEC.

- (1)
- (2) Tax fees for the years ended December 31, 2016 and 2017 were for services related to tax compliance, including the preparation of tax returns and claims for refund, and tax advice.

### ***Policy on Pre-Approval of Audit and Non-Audit Services of Independent Auditors***

Our audit committee is responsible for the oversight of our (and our subsidiaries') independent auditor's work. Our Audit Committee has adopted a policy and procedures for the pre-approval of audit and non-audit services rendered by our independent registered public accountants, Kost Forer Gabbay & Kasierer, a member of Ernst & Young Global. Pre-approval of an audit or non-audit service may be given as a general pre-approval, as part of the audit committee's approval of the scope of the engagement of our independent auditor, or on an individual basis. Any proposed services that exceed general pre-approved levels also require specific pre-approval by our audit committee. The policy prohibits retention of the independent public accountants to perform the prohibited non-audit functions defined in Section 201 of the Sarbanes-Oxley Act of 2002 or the rules of the SEC, and also requires the Audit Committee to consider whether proposed services are compatible with the independence of the public accountants.

During 2016 and 2017, all audit and non-audit services were pre-approved by our audit committee in accordance with the policy and procedures.



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**ITEM 16D. EXEMPTIONS FROM THE LISTING STANDARDS FOR AUDIT COMMITTEES**

Not applicable.

**ITEM 16E. PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS**

None.

**ITEM 16F. CHANGE IN REGISTRANT'S CERTIFYING ACCOUNTANT**

None.

**ITEM 16G. CORPORATE GOVERNANCE**

The NASDAQ Global Select Market requires companies with securities listed thereon to comply with its corporate governance standards. As a foreign private issuer, we are not required to comply with all of the rules that apply to listed domestic U.S. companies. Pursuant to NASDAQ listing rule 5615(a)(3), we have notified NASDAQ that with respect to the corporate governance practices described below, we instead follow Israeli law and practice and accordingly do not follow the NASDAQ listing rules. Except for the differences described below, we do not believe there are any significant differences between our corporate governance practices and those that apply to a U.S. domestic issuer under the NASDAQ Global Market corporate governance rules.

Independent Director Oversight of Nominations: Under Israeli law, there is no requirement to have an independent nominating committee or the independent directors of a company select (or recommend for selection) director nominees, as is required under NASDAQ listing rule 5605(e) for a U.S. domestic issuer. Our board of directors handles this process, as is permitted by our articles and the Companies Law. We also need not adopt a formal board resolution or charter addressing the director nominations process and such related matters as may be required under the U.S. federal securities laws, as NASDAQ requires for a U.S. issuer.

Shareholder Approval: Pursuant to Israeli law, we seek shareholder approval for all corporate actions requiring such approval under the requirements of the Companies Law, which are different from, or in addition to, the requirements for seeking shareholder approval under NASDAQ listing rule 5635. See “Item 10. Additional Information—Memorandum and Articles of Association— Approval of Certain Transactions Under the Companies Law” in this annual report for a description of the transactions requiring shareholder approval under the Companies Law.

Quorums for Shareholders Meetings. The quorum for a shareholders meeting, as stipulated in our articles, complies with the provisions of Israeli law, and requires the presence, in person or by proxy of holders of 25% of our outstanding ordinary shares, in lieu of the requirement specified in NASDAQ listing rule 5620(c) under which the quorum for any shareholders meeting shall not be less than 33 % of the outstanding voting shares of a listed company.

Required Timing for Annual Shareholders Meetings. Under the Companies Law, we are required to hold an annual shareholders meeting each calendar year and within 15 months of the last annual shareholders meeting, which differs from the corresponding requirement under NASDAQ listing rule 5620(a), which mandates that a listed company hold its annual shareholders meeting within one year of the company’s fiscal year-end.

#### **ITEM 16H. MINE SAFETY DISCLOSURES**

Not applicable.

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**PART III**

**ITEM 17. FINANCIAL STATEMENTS**

We have elected to provide financial statements and related information pursuant to Item 18.

**ITEM 18. FINANCIAL STATEMENTS**

Our consolidated financial statements and the report of our independent registered public accounting firm in connection therewith are filed as part of this annual report, as noted on the pages below:

<u>Reports of Independent Registered Public Accounting Firm</u>	F-2- F-4
<u>Consolidated statements of financial position</u>	F-5 - F-6
<u>Consolidated statements of profit or loss</u>	F-7
<u>Consolidated Statements of Comprehensive Income</u>	F-8
<u>Consolidated Statements of Changes in Shareholders' Equity</u>	F-9 - F-12
<u>Consolidated Statements of Cash Flow</u>	F-13 - F-15
<u>Notes to Consolidated Financial Statements</u>	F-16 - F-104

**ITEM 19. EXHIBITS**

Please see the exhibit index incorporated herein by reference.



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**SIGNATURES**

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

FORMULA SYSTEMS (1985) LTD.

By: /s/ Guy Bernstein      May 15, 2018  
    Guy Bernstein      Date  
    Chief Executive Officer

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**EXHIBIT INDEX**

**Exhibit  
No.**

1.1	Memorandum of Association <sup>(1)</sup>
1.2	<u>Amended and Restated Articles of Association, as adopted by Formula Systems (1985) Ltd. on January 8, 2012</u> <sup>(2)</sup>
2.1	Depository Agreement by and among Formula Systems (1985) Ltd., Bank of New York Mellon and the holders of the American Depository Shares of Formula Systems (1985) Ltd. <sup>(1)</sup>
4.1	<u>Form of Letter of Indemnification for officers and directors, adopted by Formula Systems (1985) Ltd. on January 8, 2012</u> <sup>(3)</sup>
4.2	<u>English translation of Formula Systems (1985) Ltd. Employees and Office Holders Share Option Plan (2008)</u> <sup>(4)</sup>
4.3	<u>Formula Systems (1985) Ltd. 2011 Share Incentive Plan and amendment</u> <sup>(5)</sup>
4.4	<u>Formula Systems (1985) Ltd. Compensation Policy</u> <sup>(6)</sup>
8.1	<u>List of Subsidiaries</u> *
12.1	<u>Certification of the Chief Executive Officer pursuant to Rule 13a-14(a)/Rule 15d-14(a) under the Exchange Act</u> *
12.2	<u>Certification of the Chief Financial Officer pursuant to Rule 13a-14(a)/Rule 15d-14(a) under the Exchange Act</u> *
13.1	<u>Certification of the Chief Executive Officer pursuant to Rule 13a-14(b)/Rule 15d-14(b) under the Exchange Act and 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002</u> *
13.2	<u>Certification of the Chief Financial Officer pursuant to Rule 13a-14(b)/Rule 15d-14(b) under the Exchange Act and 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002</u> *
15.1	<u>Consent of Kost, Forer, Gabbay &amp; Kasierer, A Member of Ernst &amp; Young Global</u> *
15.2	<u>Consent of KDA Audit Corporation</u> *

\* Filed herewith.

(1) Incorporated by reference to the Registration Statement on Form F-1 (File No. 333-8858).

(2) Incorporated by reference to Exhibit 99.1 to the report on Form 6-K filed by the registrant with the Securities and Exchange Commission on January 18, 2012.

(3) Incorporated by reference to Exhibit 99.2 to the report on Form 6-K filed by the registrant with the Securities and Exchange Commission on January 18, 2012.

(4) Incorporated by reference to the annual report on Form 20-F for the 2008 fiscal year filed by the registrant with the Securities and Exchange Commission on April 27, 2009.

(5) Incorporated by reference to the annual report on Form 20-F for the 2013 fiscal year filed by the registrant with the Securities and Exchange Commission on April 30, 2014.

(6) Incorporated by reference to Exhibit 99.2 to the report on Form 6-K filed by the registrant with the Securities and Exchange Commission on November 16, 2016.



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**FORMULA SYSTEMS (1985) LTD. AND ITS SUBSIDIARIES**

**CONSOLIDATED FINANCIAL STATEMENTS**

**AS OF DECEMBER 31, 2017**

**U.S. DOLLARS IN THOUSANDS**

**INDEX**

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**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

**To the Board of Directors and Shareholders of**

**FORMULA SYSTEMS (1985) LTD.**

**Opinion on the Financial Statements**

We have audited the accompanying consolidated statements of financial position of Formula Systems (1985) Ltd. and its subsidiaries (“the Company”) as of December 31, 2016 and 2017, the related consolidated statements of profit or loss, comprehensive income, changes in shareholders’ equity and cash flows for each of the three years in the period ended December 31, 2017, and the related notes (collectively referred to as the “consolidated financial statements”). In our opinion, based on our audits and the report of other auditors, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2016 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2017, in conformity with International Financial Reporting Standards (“IFRS”) as issued by the International Accounting Standards Board.

We did not audit the financial statements of Magic Software Japan K.K., a wholly-owned subsidiary of Magic Software Enterprises Ltd., which reflect total assets constituting 0.3% and 0.3% at December 31, 2016 and 2017, respectively, and total revenues constituting 1.0%, 1.0% and 0.7% for the years ended December 31, 2015, 2016 and 2017, respectively, of the related consolidated totals. Those statements were audited by other auditors whose report has been furnished to us, and our opinion, insofar as it relates to the amounts included for Magic Software Japan K.K., is based solely on the report of the other auditors.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), (PCAOB), the Company's internal control over financial reporting as of December 31, 2017, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated May 15, 2018 expressed an unqualified opinion thereon.

### **Basis for Opinion**

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

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

/s/ KOST FORER GABBAY & KASIERER

A Member of Ernst & Young Global

We have served as the Company's auditor since 2010.

Tel-Aviv, Israel  
May 15, 2018

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**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

**To the Shareholders and the Board of Directors of**

**FORMULA SYSTEMS (1985) LTD.**

**Opinion on Internal Control over Financial Reporting**

We have audited Formula Systems (1985) Ltd. and its subsidiaries' ("the Company") internal control over financial reporting as of December 31, 2017, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) ("the COSO criteria"). As indicated in the accompanying Management's Annual Report on Internal Control over Financial Reporting, management's assessment of and conclusion on the effectiveness of internal control over financial reporting did not include the internal controls of StoneRiver Inc. and KnowledgePrice.com which were acquired in February 2017 and December 2017, respectively. Our audit of internal control over financial reporting of the Company also did not include an evaluation of the internal control over financial reporting of StoneRiver Inc. and KnowledgePrice.com. In our opinion, the Company, based on our audit and the report of other auditors, maintained, in all material respects, effective internal control over financial reporting as of December 31, 2017, based on the COSO criteria.

We did not examine the effectiveness of internal control over financial reporting of Magic Software Japan K.K, a wholly owned subsidiary of Magic Software Enterprises Ltd., whose financial statements reflect total assets and revenues constituting 0.3% and 0.7%, respectively, of the related consolidated financial statement amounts as of and for the year ended December 31, 2017. The effectiveness of Magic Software Japan K.K.'s internal control over financial reporting was audited by other auditors whose report has been furnished to us, and our opinion, insofar as it

relates to the effectiveness of Magic Software Japan K.K.'s internal control over financial reporting, is based solely on the report of the other auditors.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated statements of financial position of the Company as of December 31, 2016 and 2017, the related consolidated statements of profit or loss, comprehensive income, changes in shareholders' equity and cash flows for each of the three years in the period ended December 31, 2017 and the related notes and our report dated May 15, 2018 expressed an unqualified opinion thereon based on our audit and the report of the other auditors.

### **Basis for Opinion**

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

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit and the report of other auditors provides a reasonable basis for our opinion.



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**Definition and Limitations of Internal Control Over Financial Reporting**

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

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

/s/ KOST FORER GABBAY & KASIERER

A Member of Ernst & Young Global

Tel-Aviv, Israel  
May 15, 2018

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Table of Contents**FORMULA SYSTEMS (1985) LTD.****AND ITS SUBSIDIARIES****CONSOLIDATED STATEMENTS OF FINANCIAL POSITION****U.S. dollars in thousands**

	Note	December 31, 2016	2017
<b>ASSETS</b>			
<b>CURRENT ASSETS:</b>			
Cash and cash equivalents		\$ 238,161	\$ 245,936
Short-term deposits		13	735
Marketable securities	5	37,516	14,138
Trade receivables (net of allowances for doubtful accounts of \$4,676 and \$6,051 as of December 31, 2016 and December 31, 2017, respectively)		308,338	385,778
Other accounts receivable and prepaid expenses	6	45,678	44,915
Inventories		3,953	3,299
<u>Total</u> current assets		633,659	694,801
<b>LONG-TERM ASSETS:</b>			
Marketable Securities	5	17,228	-
Deferred taxes	21f	15,227	15,878
Prepaid expenses and other accounts receivable		14,410	16,581
<u>Total</u> long-term assets		46,865	32,459
INVESTMENTS IN COMPANIES ACCOUNTED FOR AT EQUITY METHOD	8	24,060	25,315
PROPERTY, PLANTS AND EQUIPMENT, NET	9	26,130	29,807
INTANGIBLE ASSETS, NET	10	*)128,446	163,983
GOODWILL	11	*)495,362	617,272
<u>Total</u> assets		\$ 1,354,522	\$ 1,563,637

\*) Adjustment to comparative data (see note 4(iv)(f)).

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

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Table of Contents**FORMULA SYSTEMS (1985) LTD.****AND ITS SUBSIDIARIES****CONSOLIDATED STATEMENTS OF FINANCIAL POSITION****U.S. dollars in thousands (except share and per share data)**

	Note	December 31,	
		2016	2017
<b>LIABILITIES AND EQUITY</b>			
<b>CURRENT LIABILITIES:</b>			
Liabilities to banks and others	12, 14	\$84,760	\$70,819
Debentures	15	3,274	4,826
Trade payables		80,114	95,339
Deferred revenue and customer advances		37,647	58,905
Dividend payable		7,070	-
Employees and payroll accrual		90,709	111,707
Other accounts payable	13	41,272	53,145
Liabilities in respect of business combinations		8,119	6,811
Redeemable non-controlling interests	2(22)G	6,073	31,395
<u>Total</u> current liabilities		359,038	432,947
<b>LONG-TERM LIABILITIES:</b>			
Liabilities to banks and others	12, 14	115,529	135,616
Debentures, net of current maturities	15	55,441	133,739
Other long term liabilities		9,384	7,244
Deferred taxes	21f	*)31,029	36,605
Deferred revenues		4,697	9,340
Liability in respect of business combinations		*)8,869	4,711
Liability in respect of capital lease		108	-
Redeemable non-controlling interests	2G	*)40,411	21,481
Employee benefit liabilities		6,174	9,032
<u>Total</u> long-term liabilities		271,642	357,768
<b>COMMITMENTS AND CONTINGENCIES</b>	19		
<b>EQUITY</b>	20		
Formula Systems (1985) equity:			
Share capital:			

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Ordinary shares of NIS 1 par value - Authorized: 25,000,000 shares at December 31, 2016 and 2017; Issued: 15,297,402 and 15,307,402 at December 31, 2016 and 2017, respectively; Outstanding: 14,728,782 and 14,738,782 at December 31, 2016 and 2017, respectively		4,184	4,187
Additional paid-in capital		100,571	97,657
Accumulated earnings		234,268	239,534
Accumulated other comprehensive income (loss)		(2,377 )	18,083
Treasury shares (568,620 shares as of December 31, 2016 and 2017)		(259 )	(259 )
Total equity attributable to Formula Systems (1985) shareholders'		336,387	359,202
Non-controlling interests	22a	387,455	413,720
<u>Total</u> equity		723,842	772,922
<u>Total</u> liabilities, redeemable non-controlling interest and equity		\$1,354,522	\$1,563,637

\*) Adjustment to comparative data (See Note 4(iv)(f)).

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

Table of Contents**FORMULA SYSTEMS (1985) LTD.****AND ITS SUBSIDIARIES**

## CONSOLIDATED STATEMENTS OF PROFIT OR LOSS

**U.S. dollars in thousands (except share and per share data)**

	Note	Year ended December 31,		
		2015	2016	2017
Revenues:	22c			
Proprietary software products and related services		\$242,818	\$273,235	\$341,350
Software services		730,376	835,386	1,013,789
Total revenues		973,194	1,108,621	1,355,139
Cost of revenues:				
Proprietary software products and related services		131,131	149,244	201,302
Software services		610,139	700,596	857,014
Total cost of revenues		741,270	849,840	1,058,316
Gross profit		231,924	258,781	296,823
Research and development expenses, net		15,123	22,328	39,853
Selling, marketing, general and administrative expenses		140,935	147,953	184,424
Other income		-	-	308
Operating income		75,866	88,500	72,854
Financial expenses	22b	(14,955 )	(17,594 )	(29,916 )
Financial income		5,422	6,008	8,749
Group's share of profits of companies accounted for at equity, net	8	5	349	1,124
Income before taxes on income		66,338	77,263	52,811
Taxes on income	21h	15,984	21,163	13,371
Net income		\$50,354	\$56,100	\$39,440
Attributable to:				
Equity holders of the Company		19,829	22,445	10,352
Redeemable non-controlling interests		864	2,125	3,671

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Non-controlling interests	29,661	31,530	25,417
	\$50,354	\$56,100	\$39,440
Net earnings per share attributable to Formula Systems (1985) Shareholders	22d		
Basic earnings per share	\$1.41	\$1.58	\$0.72
Diluted earnings per share	\$1.33	\$1.49	\$0.68

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

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Table of Contents**FORMULA SYSTEMS (1985) LTD.****AND ITS SUBSIDIARIES****CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME****U.S. dollars in thousands**

	<b>Year ended</b>		
	<b>December 31,</b>		
	2015	2016	2017
Net income	\$50,354	\$56,100	\$39,440
Other comprehensive income (loss) (net of tax effect):			
Amounts that will not be reclassified subsequently to profit or loss:			
Actuarial loss from defined benefit plans	(416 )	(2,696 )	(898 )
Share in other comprehensive income (loss) of joint venture	-	-	104
Amounts that will be or that have been reclassified to profit or loss when specific conditions are met:			
Gain from derivative instruments, net	9	-	-
Unrealized gain (loss) from available-for-sale financial assets	102	30	144
Amounts transferred to the statement of profit or loss for sale of available-for-sale financial assets	(300 )	16	(94 )
Exchange differences on translation of foreign operations	(3,726 )	1,667	41,599
Total other comprehensive income (loss), net of tax	(4,331 )	(983 )	40,855
Total Comprehensive income	46,023	55,117	80,295
Total comprehensive income attributable to:			
Equity holders of the Company	17,693	21,948	30,354
Redeemable non-controlling interests	864	2,020	7,836
Non-controlling interests	27,466	31,149	42,105
	\$46,023	\$55,222	\$80,295

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



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Table of Contents**FORMULA SYSTEMS (1985) LTD.****AND ITS SUBSIDIARIES****CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY**

U.S. dollars in thousands (except share and per share data)

	Share Capital Number	Capital Amount	Additional paid-in capital	Retained earnings	Accumulated other comprehensive Loss	Treasury shares (cost)	Non- controlling interests	Total Equity
Balance as of January 1, 2015	14,728,782	\$4,184	\$106,501	\$215,655	\$(1,305 )	\$(259 )	\$367,524	\$692,300
Net Income	-	-	-	19,829	-	-	29,661	49,490
Foreign currency translation reserve	-	-	-	-	(1,663 )	-	(2,063 )	(3,726 )
Actuarial loss from defined benefit plans	-	-	-	(213 )	-	-	(203 )	(416 )
Unrealized gain from derivative instruments, net	-	-	-	-	4	-	5	9
Unrealized gain from available-for-sale securities, net	-	-	-	-	38	-	64	102
Realized gain from available-for-sale securities	-	-	-	-	(302 )	-	2	(300 )
Total other comprehensive income (loss)	-	-	-	(213 )	(1,923 )	-	(2,195 )	(4,331 )
Total comprehensive income	-	-	-	19,616	(1,923 )	-	27,466	45,159

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Adjustments to redeemable non-controlling interests	-	-	(218 )	-	-	-	(266 )	(484 )
Stock-based Compensation expenses (Note 17a-b)	-	-	1,561	-	-	-	3,305	4,866
Non-controlling interests changes due to holding changes, including exercise of employees stock options	-	-	(2,940 )	-	-	-	4,828	1,888
Acquisition of non-controlling interests	-	-	(1,892 )	-	-	-	(3,937 )	(5,829 )
Dividend to Formula's shareholders	-	-	-	(5,015 )	-	-	-	(5,015 )
Dividend to non-controlling interests in subsidiaries	-	-	-	-	-	-	(18,039 )	(18,039 )
Distribution to parent for a business acquisition under common control	-	-	(5,314 )	-	-	-	(5,501 )	(10,815 )
Embedded conversion option of convertible debentures	-	-	1,248	-	-	-	-	1,248
Balance as of December 31, 2015	14,728,782	\$4,184	\$98,946	\$230,256	\$(3,228 )	\$(259 )	\$375,380	\$705,279

Table of Contents**FORMULA SYSTEMS (1985) LTD.****AND ITS SUBSIDIARIES****CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY**

U.S. dollars in thousands (except share and per share data)

	Share Capital Number	Capital Amount	Additional paid-in capital	Retained earnings	Accumulated other comprehensive Loss	Treasury shares (cost)	Non- controlling interests	Total Equity
Balance as of January 1, 2016	14,728,782	\$4,184	\$98,946	\$230,256	\$(3,228 )	\$(259 )	\$375,380	\$705,279
Net Income	-	-	-	22,445	-	-	31,530	53,975
Foreign currency translation reserve	-	-	-	-	828	-	944	1,772
Actuarial loss from defined benefit plans	-	-	-	(1,348 )	-	-	(1,348 )	(2,696 )
Unrealized gain from available-for-sale securities, net	-	-	-	-	15	-	15	30
Realized loss (gain) from available-for-sale securities	-	-	-	-	8	-	8	16
Total other comprehensive income (loss)	-	-	-	(1,348 )	851	-	(381 )	(878 )
Total comprehensive income	-	-	-	21,097	851	-	31,149	53,097
Adjustments to redeemable non-controlling	-	-	393	-	-	-	453	846

interests								
Stock-based Compensation expenses (Note 17a-b)	-	-	772	-	-	-	3,622	4,394
Non-controlling interests changes due to holding changes, including exercise of employees stock options	-	-	1,200	-	-	-	(559 )	641
Acquisition of non-controlling interests	-	-	(740 )	-	-	-	(2,101 )	(2,841 )
Dividend to Formula's shareholders	-	-	-	(17,085 )	-	-	-	(17,085 )
Dividend to non-controlling interests in subsidiaries	-	-	-	-	-	-	(20,692 )	(20,692 )
Non-controlling interests arising from initially consolidated companies	-	-	-	-	-	-	203	203
Balance as of December 31, 2016	14,728,782	\$4,184	\$100,571	\$234,268	\$(2,377 )	\$(259 )	\$387,455	\$723,842

Table of Contents**FORMULA SYSTEMS (1985) LTD.****AND ITS SUBSIDIARIES****CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY**

U.S. dollars in thousands (except share and per share data)

	Share Capital Number	Capital Amount	Additional paid-in capital	Retained earnings	Accumulated other comprehensive income (loss)	Treasury shares (cost)	Non- controlling interests	Total Equity
Balance as of January 1, 2017	14,728,782	\$4,184	\$100,571	\$234,268	\$(2,377 )	\$(259 )	\$387,455	\$723,842
Net Income	-	-	-	10,352	-	-	25,417	35,769
Foreign currency translation reserve	-	-	-	-	20,325	-	17,109	37,434
Actuarial loss from defined benefit plans	-	-	-	(453 )	-	-	(445 )	(898 )
Unrealized gain from available-for-sale securities, net	-	-	-	-	70	-	74	144
Realized loss (gain) from available-for-sale securities	-	-	-	-	(44 )	-	(50 )	(94 )
Share of other comprehensive income of joint venture	-	-	-	-	104	-	-	104
Total other comprehensive income (loss)	-	-	-	(453 )	20,455	-	16,688	36,690
Total comprehensive	-	-	-	9,899	20,455	-	42,105	72,459

income

Issuance of restricted shares to employees	10,000	3	(3 )	-	-	-	-	-
Adjustments to redeemable non-controlling interests	-	-	(2,283 )	-	-	-	(2,589 )	(4,872 )
Stock-based Compensation expenses (Note 17a-b)	-	-	1,058	-	-	-	3,442	4,500
Non-controlling interests changes due to holding changes, including exercise of employees stock options	-	-	(1,306 )	-	-	-	4,553	3,247
Acquisition of non-controlling interests	-	-	3	-	-	-	3	6
Dividend to Formula's shareholders	-	-	-	(5,011 )	-	-	-	(5,011 )
Dividend to non-controlling interests in subsidiaries	-	-	-	-	-	-	(23,717 )	(23,717 )
Redeemable non-controlling interests reclassification to non-controlling interests	-	-	-	-	-	-	2,440	2,440
Non-controlling interests arising from exercise of options in indirect subsidiary	-	-	-	-	-	-	28	28
Balance as of December 31, 2017	14,738,782	\$4,187	\$98,040	\$239,156	\$18,078	\$(259 )	413,720	772,922

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Table of Contents**FORMULA SYSTEMS (1985) LTD.****AND ITS SUBSIDIARIES****CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY****U.S. dollars in thousands (except share and per share data)**

	Year ended December 31,		
	2015	2016	2017
Reserve from available-for-sale financial assets	328	351	377
Foreign currency translation reserve	(1,341)	(513 )	19,812
Reserve from derivatives	4	4	4
Share of other comprehensive income (loss) of companies accounted for at equity	(2,219)	(2,219)	(2,115 )
Accumulated other comprehensive loss	\$(3,228)	\$(2,377)	\$18,078

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



Table of Contents**FORMULA SYSTEMS (1985) LTD.****AND ITS SUBSIDIARIES****CONSOLIDATED STATEMENTS OF CASH FLOWS****U.S. dollars in thousands**

	<b>Year ended</b>		
	<b>December 31,</b>		
	2015	2016	2017
Cash flows from operating activities:			
Net income	\$50,354	\$56,100	\$39,440
Adjustments to reconcile net income to net cash provided by operating activities:			
Equity in losses (gains) of companies accounted for at equity	142	(349 )	(1,124 )
Depreciation and amortization	30,896	32,370	43,646
Changes in value of debentures	195	1,371	5,277
Increase (decrease) in employee benefit liabilities	(522 )	(1,656 )	752
Loss (gain) from sale of property, plants and equipment	-	(3,147 )	26
Stock-based compensation expenses	4,866	4,394	4,552
Changes in value of short-term and long term loans from banks and others and deposits, net	(120 )	500	6,731
Changes in deferred taxes, net	2,134	211	(12,819)
Change in liability in respect of business combinations	654	2,023	1,531
Loss (gain) from sale and increase in value of marketable securities classified as trading	(114 )	(136 )	149
Amortization of premium and accrued interest on marketable securities	(230 )	(260 )	716
Realized loss (gain) from sale of available for sale securities	(300 )	16	(94 )
Change in redeemable non-controlling interests' put option	905	1,779	-
Change in value of dividend preference derivative in TSG	-	-	(260 )
Decrease (increase) in inventories	(2,387 )	923	1,037
Increase in trade receivables	(17,668)	(30,086)	(38,223)
Decrease (increase) in other current and long-term accounts receivable	(4,154 )	(513 )	641
Increase in trade payables	9,982	5,423	6,086
Increase in other accounts payable and employees and payroll accrual	10,793	8,673	7,199
Increase (decrease) in deferred revenues	1,693	(2,681 )	15,718
Net cash provided by operating activities	87,119	74,955	80,981

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

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Table of Contents**FORMULA SYSTEMS (1985) LTD.****AND ITS SUBSIDIARIES****CONSOLIDATED STATEMENTS OF CASH FLOWS****U.S. dollars in thousands**

	<b>Year ended</b>		
	<b>December 31,</b>		
	2015	2016	2017
Cash flows from investing activities:			
Payments for business acquisitions, net of cash acquired (Appendix C)	(17,000 )	(44,832 )	(119,103 )
Payments to former shareholders of consolidated companies	-	(1,784 )	(6,225 )
Purchase of intangible assets	(211 )	(391 )	-
Purchase of property and equipment	(6,766 )	(9,137 )	(9,573 )
Proceeds from sale of (investment in) marketable securities, net	(690 )	8,450	40,622
Proceeds from sale of property, plants and equipment	-	2,347	-
Investment in and loans to affiliates and other companies	-	(25,813 )	(25 )
Change in restricted cash in other accounts receivable	(888 )	(544 )	1,992
Change in short-term and long-term deposits, net	3,942	2,665	(888 )
Capitalization of software development and other costs	(9,879 )	(9,769 )	(9,338 )
Net cash used in investing activities	(31,492 )	(78,808 )	(102,538 )
Cash flows from financing activities:			
Exercise of employees stock options in subsidiaries	1,987	931	3,240
Dividend paid to non-controlling interests and redeemable non-controlling interests in subsidiaries	(19,088 )	(24,131 )	(31,231 )
Dividend to Formula's shareholders	(12,890 )	(10,014 )	(12,081 )
Short-term bank credit, net	2,862	20,720	(21,176 )
Repayment of long-term loans from banks and others	(26,902 )	(37,415 )	(46,065 )
Receipt of long term loans	32,160	49,582	52,734
Proceeds from issuance of debentures, net	58,556	-	78,229
Repayment of long-term liabilities to office of the chief scientist	(555 )	(510 )	(502 )
Repayment of debentures	-	-	(3,656 )
Purchase of non-controlling interests	(5,396 )	(3,166 )	-
Cash paid in conjunction with acquisitions of activities	(1,280 )	(1,160 )	(2,592 )
Repayment of capital lease	(399 )	(443 )	(480 )
Distribution to ultimate parent for a business acquisition under common control	(8,482 )	(1,440 )	-

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Net cash provided by (used in) financing activities	20,573	(7,046 )	16,420
Effect of exchange rate changes on cash and cash equivalents	(6,990 )	(81 )	12,912
Increase (decrease) in cash and cash equivalents	69,210	(10,980 )	7,775
Cash and cash equivalents at beginning of year	179,931	249,141	238,161
Cash and cash equivalents at end of year	\$249,141	\$238,161	\$245,936

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

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Table of Contents**FORMULA SYSTEMS (1985) LTD.****AND ITS SUBSIDIARIES****CONSOLIDATED STATEMENTS OF CASH FLOWS****U.S. dollars in thousands**

	<b>Year ended</b>		
	<b>December 31,</b>		
	2015	2016	2017
<b>A. Supplemental cash flow information:</b>			
Cash paid (received) in respect of:			
Interest paid	\$6,158	\$6,770	\$6,448
Interest received	\$(1,688 )	\$(2,334 )	\$(145 )
Taxes paid (received), net	\$23,014	\$19,176	\$19,680
<b>B. Non-cash activities:</b>			
Dividend payable to Formula's shareholders	\$-	\$7,070	\$-
Purchase of property and equipment	\$-	\$(2,260 )	\$-
Deferred payment to former shareholders of consolidated companies	\$-	\$-	\$652
Dividend payable to redeemable non-controlling interests	\$-	\$-	\$692
<b>C. Acquisition of newly-consolidated subsidiaries and activities, net of cash acquired:</b>			
Assets and liabilities of subsidiaries consolidated as of acquisition date:			
Working capital (other than cash and cash equivalents)	(1,445 )	(2,938 )	9,631
Property and equipment	(360 )	(3,494 )	(1,332 )
Goodwill and intangible assets	(25,673)	(92,878)	(148,085)
Other long-term assets	(134 )	-	(125 )
Liabilities to banks and others	47	3,391	281
Long-term liabilities	1,556	-	-
Deferred tax liability, net	425	10,130	17,911
Liability to formerly shareholders	4,117	11,997	2,616
Non-controlling interests at acquisition date	-	203	-
Redeemable non-controlling interests at acquisition date	4,467	28,757	-
Total	\$(17,000)	\$(44,832)	\$(119,103)

The accompanying notes form an integral part of the financial statements.

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**FORMULA SYSTEMS (1985) LTD.**

AND ITS SUBSIDIARIES

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

**U.S. dollars in thousands, except share and per share data**

NOTE 1:- GENERAL

a.

General:

Formula Systems (1985) Ltd. (“Formula” or the “Company”) was incorporated in Israel and began its business operations in 1985. Since 1991, Formula’s ordinary shares, par value NIS 1.0 per share, have been traded on the Tel-Aviv Stock Exchange (“TASE”), and, in 1997, began trading through American Depositary Shares (“ADSs”) under the symbol “FORTY” on the NASDAQ Global Market in the United States until January 3, 2011, at which date the listing of Formula’s ADSs was transferred to the NASDAQ Global Select Market (“NASDAQ”). Each ADS represents one ordinary share of Formula. The Company is considered an Israeli resident. The controlling shareholder of the Company is Asseco Poland S.A. (“Asseco”), a Polish public company, traded on the Warsaw Stock Exchange.

Formula, through its investees (collectively, the “Group”) is engaged in providing software services, proprietary and non-proprietary software solutions, software product marketing and support, computer infrastructure and integration solutions and training and integration. The Group operates through five directly held subsidiaries: Matrix IT Ltd. (“Matrix”); Magic Software Enterprises Ltd. (“Magic”), Sapiens International Corporation N.V (“Sapiens”), Insync Staffing Solutions, Inc. (“Insync”) and Michpal Micro Computers (1983) Ltd. (“Michpal”) and one affiliate company, TSG IT Advanced Systems Ltd. (“TSG”).

b.

Investees:

The following table presents certain information regarding ownership of Formula’s significant investees, as of the dates indicated (the list consists only of active companies that are held directly by Formula):

<u>Name of Investee</u>	Percentage of ownership	
	December 31, 2016	2017

Matrix	50.01	49.50
Magic	47.26	47.12
Sapiens	48.85	48.14
Insync	90.09	90.09
Michpal <sup>(1)</sup>	-	100
TSG <sup>(2)</sup>	50.00	50.00

1) Michpal's results of operations are consolidated in the Company's results of operations commencing January 1, 2017.

2) TSG's results of operations are reflected in the Company's results of operations using the equity method of accounting commencing May 9, 2016.

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**FORMULA SYSTEMS (1985) LTD.**

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

**U.S. dollars in thousands, except share and per share data**

NOTE 1:- general (Cont.)

c.

Definitions:

In these financial statements:

The Company	- Formula Systems (1985) Ltd.
The Group	- Formula Systems (1985) Ltd. and its investees.
Subsidiaries	- Companies that are controlled by the Company (as defined in IFRS 10) and whose accounts are consolidated with those of the Company.
Jointly controlled entities	- Companies owned by various entities that have a contractual arrangement for joint control and are accounted for using the equity method of accounting.
Associates	- Companies over which the Company has significant influence and that are not subsidiaries. The Company's investment therein is included in the financial statements using the equity method.
Investees	- Subsidiaries, jointly controlled entities and associates.
Interested parties and controlling shareholder	- As defined in the Israeli Securities Regulations (Annual Financial Statements), 2010.
Related parties	- As defined in IAS 24.

NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES

The following accounting policies have been applied consistently in the financial statements for all periods presented, unless otherwise stated.

1) Basis of presentation of the financial statements

These financial statements have been prepared in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board (“IFRS”).

The Company’s financial statements have been prepared on a cost basis, except for certain assets and liabilities such as: available-for-sale financial assets; contingent liabilities related to business combination and other financial assets and liabilities (including derivatives) which are presented at fair value through profit or loss.

The Company has elected to present the profit or loss items using the function of expense method.

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**FORMULA SYSTEMS (1985) LTD.**

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

**U.S. dollars in thousands, except share and per share data**

**NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES (Cont.)**

The financial statements for the year ended December 31, 2016 were the Group's first consolidated financial statements prepared in accordance with IFRS. The date of transition to IFRS was January 1, 2015. For all periods up to and including the year ended December 31, 2015, the Group prepared its financial statements in accordance with United States generally accepted accounting principles ("U.S. GAAP"). Accordingly, the Group's first consolidated financial statements that comply with IFRS are applicable as of December 31, 2016, together with the comparative period data for the year ended December 31, 2015.

2) Use of estimates and judgments

The preparation of the consolidated financial statements in conformity with IFRS requires management to make estimates, judgments and assumptions that affect the amounts reported in the financial statements and accompanying notes. The Company's management believes that the estimates, judgments and assumptions used are reasonable based upon information available at the time they are made. Actual results could differ from those estimates. The most significant assumptions are employed in estimates used in determining values of goodwill and identifiable intangible assets and their subsequent impairment analysis, revenue recognition, tax assets and tax positions, legal contingencies, research and development capitalization, classification of leases, contingent consideration related to acquisitions, determining the fair value of non-controlling interests and redeemable non-controlling interests, pension and other post-employment benefits and share-based compensation costs.

In the process of applying the significant accounting policies, the Group has made the following judgments which have the most significant effect on the amounts recognized in the financial statements:

3) Consolidated financial statements:

The consolidated financial statements comprise the financial statements of companies that are controlled by the Company (subsidiaries). Control is achieved when the Company is exposed, or has rights, to variable returns from its

involvement with the investee and has the ability to affect those returns through its power over the investee.

In a situation when the Company holds less than a majority of voting rights in a given entity, but it is sufficient to unilaterally direct the relevant activities of such entity, then the control is exercised. When assessing whether voting rights held by the Company are sufficient to give it power, the Company considers all facts and circumstances, including: the size of its holding of voting rights relative to the size and dispersion of other vote holders; potential voting rights held by the Company and other shareholders or parties; rights arising from other contractual arrangements; significant personal ties and any additional facts and circumstances that may indicate that the Company has, or does not have the ability to direct the relevant activities when decisions need to be made, inclusive of voting patterns observed at previous meetings of shareholders. Potential voting rights are considered when assessing whether an entity has control.

The consolidation of the financial statements commences on the date on which control is obtained and ends when such control ceases.

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**FORMULA SYSTEMS (1985) LTD.**

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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**NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES (Cont.)**

**Effective control:**

The Company's management assess whether it controls an investee in which it holds less than the majority of the voting power, among others, by reference to the size of its voting power relative to the size and dispersion of other holders voting power including voting patterns at previous shareholders' meetings.

The Company's Management has concluded that despite the lack of absolute majority of voting power at the general meetings of shareholders of Matrix, Sapiens and Magic, in accordance with IFRS 10, these investees are controlled by the Company. The conclusion regarding the existence of control during the years ended December 31, 2015 and 2016, with respect to Sapiens and Magic and during the year ended December 31, 2017, with respect to Matrix, Sapiens and Magic, in accordance with IFRS 10, was made in accordance with the following factors:

**Sapiens:**

i. Governing bodies of Sapiens:

Decisions of Sapiens' shareholders general meeting are taken by a simple majority of votes represented at the general meeting. The annual (ordinary) general meeting adopts resolutions to appoint individual directors, choose Sapiens' independent auditors for the next year, as well as approve the company's financial statements and the management's report on operations.

In accordance with Sapiens' articles of association, the board of directors of Sapiens is responsible for managing its current business operations and is authorized to take substantially all decisions which are not specifically reserved to

Sapiens' shareholders by its articles of association, including the decision to pay out dividends. Sapiens' board of directors is composed of 7 members, 4 of whom are independent directors. For the last 7 years, the Company has consistently reappointed the same members of the board of directors. Likewise, the previous composition of the board of directors was re-elected during the general meeting that was held in November 2017, this is when the Company's share interest in Sapiens was already below 50%.

ii. Shareholders structure of Sapiens:

Sapiens' shareholders structure is dispersed because, apart from the Company, just two financial institutions held more than 5% of the voting rights at the general meeting (each representing 5.0% and 5.1% of votes respectively). There is no evidence that any of the shareholders have or had granted to any other shareholder a voting proxy at the general meeting. Over the last five years from 2013 to 2017, the Sapiens' general meetings were attended by shareholders representing in total between 70% and 79.3% of total voting power (including the Company's share power and bearing in mind that the Company presently holds approximately 48.14% of total voting rights). This means that the level of activity of Sapiens' other shareholders is relatively moderate or low. As of December 31, 2017, the attendance from shareholders would have to be higher than 96.3% in order to deprive the Company of an absolute majority of votes at the general meeting. In accordance with voting patterns at Sapiens' shareholders' meetings in recent years, it is the Company's management belief that achieving such a high attendance seems unlikely.

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**NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES (Cont.)**

Magic:

i. Governing bodies of Magic:

Decisions of Magic's shareholders general meeting are taken by a simple majority of votes represented at the general meeting. The annual (ordinary) general meeting adopts resolutions to appoint individual directors, choose Magic's independent auditors for the next year, as well as to approve Magic's financial statements and the management's report on operations.

In accordance with the Magic's articles of association, the board of directors of Magic is responsible for managing Magic's current business operations and is authorized to take substantially all decisions which are not specifically reserved to Magic shareholders by its articles of association, including the decision to pay out dividends. Magic's board of directors is composed of 5 members, 3 of whom are independent directors. In recent years, the Company has consistently reappointed the same members of the board of directors.

ii. Shareholders structure of Magic:

Magic's shareholders structure is dispersed because, apart from the Company, as of December 31, 2017 there were just three financial institutions holding more than 5% of Magic's voting power (each representing 6.41%, 5.12% and 5.0% of votes respectively). There is no evidence that any of the shareholders have or had granted to any other shareholder a voting proxy at the general meeting. Over the last five years from 2013 to 2017, Magic's general meetings were attended by shareholders representing not more than 77% of total voting rights (including the Company's share power and bearing in mind that the Company presently holds approximately 47.12% of total voting power). This means that the level of activity of Magic's other shareholders is relatively moderate or low. As of December 31, 2017, the attendance from shareholders would have to be higher than 94.3% in order to deprive the Company of an absolute majority of votes at the general meeting. In accordance with voting patterns at Magic's shareholders' meetings in recent

years, it is the Company's management belief that achieving such a high attendance seems unlikely.

Matrix:

i. Governing bodies of Matrix:

Decisions of Matrix's shareholders general meeting are taken by a simple majority of votes represented at the general meeting. The annual (ordinary) general meeting adopts resolutions to appoint individual directors, choose Matrix's independent auditors for the next year, as well as approve the company's financial statements and the management's report on operations.

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**NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES (Cont.)**

In accordance with Matrix's articles of association, the board of directors of Matrix is responsible for managing its current business operations and is authorized to take substantially all decisions which are not specifically reserved to Matrix's shareholders by its articles of association, including the decision to pay out dividends. Matrix's board of directors is composed of 6 members, 4 of whom are independent directors. For the last 3 years (i.e., 2014-2017), the Company has consistently reappointed the same members of the board of directors. Likewise, the previous composition of the board of directors was re-elected during the general meeting that was held in December 2017, this is when the Company's share interest in Matrix was already below 50%.

ii. Shareholders structure of Matrix:

Matrix's shareholders structure is dispersed because, apart from the Company, as of December 31, 2017 there was just one financial institution holding more than 5% of Matrix's voting power (9.92% of votes). There is no evidence that any of the shareholders have or had granted to any other shareholder a voting proxy at the general meeting. Over the last three years from 2014 to 2017, Matrix's general meetings were attended by shareholders representing not more than 82% of total voting rights (including the Company's share power and bearing in mind that the Company presently holds approximately 49.50% of total voting power). This means that the level of activity of Matrix's other shareholders is relatively moderate or low. As of December 31, 2017, the attendance from shareholders would have to be higher than 99.0% in order to deprive the Company of an absolute majority of votes at the general meeting. In accordance with voting patterns at Matrix's shareholders' meetings in recent years, it is the Company's management belief that achieving such a high attendance seems unlikely.

The financial statements of the Company and of the subsidiaries, after being adjusted to comply with IFRS, are prepared for the same reporting period and using consistent accounting treatment of similar transactions and economic activities. Any discrepancies in the applied accounting policies are eliminated by making appropriate adjustments. Significant intragroup balances and transactions and gains or losses resulting from intragroup transactions are eliminated in full in the consolidated financial statements.

Non-controlling interests in subsidiaries represent the equity in subsidiaries not attributable, directly or indirectly, to a parent. Non-controlling interests are presented in equity separately from the equity attributable to the equity holders of the Company. Profit or loss and components of other comprehensive income are attributed to the Company and to non-controlling interests. Losses are attributed to non-controlling interests even if they result in a negative balance of non-controlling interests in the consolidated statement of financial position.

The disposal of a subsidiary that does not result in a loss of control is recognized as a change in equity. In such events, in order to reflect changes in the ownership of a respective subsidiary, the Group shall adjust the carrying value of controlling interests and non-controlling interests. Any differences between the change in non-controlling interests and the fair value of consideration paid or received are recognized directly in equity and attributed to the owners of the Company.

4) Business combinations and goodwill:

Business combinations are accounted for by applying the acquisition method. The cost of the acquisition is measured at the fair value of the consideration transferred on the acquisition date with the addition of non-controlling interests in the acquiree. In each business combination, the Company determines whether to measure the non-controlling interests in the acquiree based on their fair value on the acquisition date or at their proportionate share in the fair value of the acquiree's net identifiable assets.

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**NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES (Cont.)**

Direct acquisition costs are carried to the statement of profit or loss as incurred.

In a business combination achieved in stages, equity interests in the acquiree that had been held by the acquirer prior to obtaining control are measured at the acquisition date fair value while recognizing a gain or loss resulting from the revaluation of the prior investment on the date of achieving control.

Contingent consideration is recognized at fair value on the acquisition date and classified as a financial asset or liability in accordance with IAS 39, "Financial Instruments: Recognition and Measurement". Subsequent changes in the fair value of the contingent consideration are recognized in profit or loss. If the contingent consideration is classified as an equity instrument, it is measured at fair value on the acquisition date without subsequent remeasurement.

Goodwill is initially measured at cost which represents the excess of the acquisition consideration and the amount of non-controlling interests over the net identifiable assets acquired and liabilities assumed. If the resulting amount is negative, the acquirer recognizes the resulting gain on the acquisition date without subsequent measurement.

5) Investment in joint arrangements:

Joint arrangements are arrangements in which the Company has joint control. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require the unanimous consent of the parties sharing control.

i. Joint ventures:

In joint ventures the parties that have joint control of the arrangement have rights to the net assets of the arrangement. A joint venture is accounted for at using the equity method.

ii.

Joint operations:

In joint operations the parties that have joint control of the arrangement have rights to the assets and obligations for the liabilities relating to the arrangement. The Company recognizes in relation to its interest its share of the assets, liabilities, revenues and expenses of the joint operation.

6)

Investments in associates:

Associates are companies in which the Group has significant influence over the financial and operating policies without having control. The investment in an associate is accounted for using the equity method.

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**FORMULA SYSTEMS (1985) LTD.**

AND ITS SUBSIDIARIES

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

**U.S. dollars in thousands, except share and per share data**

**NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES (Cont.)**

7) Investments accounted for using the equity method:

The Group's investments in associates and joint ventures are accounted for using the equity method. Under the equity method, the investment in the associate or in the joint venture is presented at cost with the addition of post-acquisition changes in the Group's share of net assets, including other comprehensive income of the associate or the joint venture. Gains and losses resulting from transactions between the Group and the associate or the joint venture are eliminated to the extent of the interest in the associate or in the joint venture.

Goodwill relating to the acquisition of an associate or a joint venture is presented as part of the investment in the associate or the joint venture, measured at cost and not systematically amortized. Goodwill is evaluated for impairment as part of the investment in the associate or in the joint venture as a whole.

The financial statements of the Company and of the associate or joint venture are prepared as of the same dates and periods. The accounting policies applied in the financial statements of the associate or the joint venture are uniform and consistent with the policies applied in the financial statements of the Group.

Upon the acquisition of an associate or a joint venture achieved in stages when the former investment in the acquiree was accounted for pursuant to the provisions of IAS 39, the Group adopts the principles of IFRS 3 regarding business combinations achieved in stages. Consequently, equity interests in the acquiree that had been held by the Group prior to achieving significant influence or joint control are measured at fair value on the acquisition date and are included in the acquisition consideration while recognizing a gain or loss resulting from the fair value measurement.

8) Functional currency, presentation currency and foreign currency:

i. Functional currency and presentation currency:

The presentation currency of the financial statements is the U.S dollars (the “dollar”). The Group determines the functional currency of each investee, including companies accounted for at equity. The currency of the primary economic environment in which the operations of Formula and certain of its investees are conducted is the dollar, thus, the dollar is the functional and reporting currency of Formula and certain of its investees.

Assets, including fair value adjustments upon acquisition, and liabilities of an investee which is a foreign operation, are translated at the closing rate at each reporting date. Profit or loss items are translated at average exchange rates for all periods presented. The resulting translation differences are recognized in other comprehensive income (loss).

Intragroup loans for which settlement is neither planned nor likely to occur in the foreseeable future are, in substance, a part of the investment in the foreign operation and, accordingly, the exchange rate differences from these loans (net of the tax effect) are recorded in other comprehensive income (loss).

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**NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES (Cont.)**

Upon the full or partial disposal of a foreign operation resulting in loss of control in the foreign operation, the cumulative gain (loss) from the foreign operation which had been recognized in other comprehensive income is transferred to profit or loss. Upon the partial disposal of a foreign operation which results in the retention of control in the subsidiary, the relative portion of the amount recognized in other comprehensive income is reattributed to non-controlling interests.

ii. Transactions, assets and liabilities in foreign currency:

Transactions denominated in foreign currency are recorded upon initial recognition at the exchange rate at the date of the transaction. After initial recognition, monetary assets and liabilities denominated in foreign currency are translated at each reporting date into the functional currency at the exchange rate at that date. Exchange rate differences, other than those capitalized to qualifying assets or accounted for as hedging transactions in equity, are recognized in profit or loss. Non-monetary assets and liabilities denominated in foreign currency and measured at cost are translated at the exchange rate at the date of the transaction. Non-monetary assets and liabilities denominated in foreign currency and measured at fair value are translated into the functional currency using the exchange rate prevailing at the date when the fair value was determined.

9) Cash equivalents:

Cash equivalents are considered as highly liquid investments, including unrestricted short-term bank deposits with an original maturity of three months or less from the date of investment or with a maturity of more than three months, but which are redeemable on demand without penalty and which form part of the Group's cash management. Cash and cash equivalent includes amounts held primarily in New-Israeli Shekel, dollars, Euro, Japanese Yen, Indian Rupee and British Pound.

10) Short-term and restricted deposits:

Short-term bank deposits are deposits with an original maturity of more than three months from the date of investment and which do not meet the definition of cash equivalents. The deposits are presented according to their terms of deposit. Restricted deposits include deposits used to secure certain subsidiaries' ongoing projects and credit lines from banks as well as, security deposits with respect to leases, and are classified under other receivables.

11) Allowance for doubtful accounts:

The allowance for doubtful accounts is determined in respect of specific trade receivables whose collection, in the opinion of the Group's management, is doubtful. The Group did not recognize an allowance in respect of groups of trade receivables that are collectively assessed for impairment due to immateriality. Impaired receivables are derecognized when they are assessed as uncollectible.

The bad debt expense net for the years ended December 31, 2015, 2016 and 2017 was \$747, \$652 and \$1,373 respectively.



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**NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES (Cont.)**

12)

Inventories:

Inventories are measured at the lower of cost and net realizable value. The cost of inventories comprises costs of purchase and costs incurred in bringing the inventories to their present location and condition. Net realizable value is the estimated selling price in the ordinary course of business less estimated costs of completion and estimated costs necessary to make the sale. Inventories are mainly comprised of purchased merchandise and products which consist of educational software kits, computers, peripheral equipment and spare parts. Cost is determined on the “first in - first out” basis.

The Group periodically evaluates the condition and aging of its inventories and makes provisions for impairment of slow moving inventories accordingly. No such impairments have been recognized in any period presented.

13)

Revenue recognition:

The Group derives its revenues primarily from the sale of information technology (or “IT”) services which also include sale of: non-proprietary software products, including maintenance, integration and infrastructure, outsourcing, training and deployment. In addition, the Group generates revenues from licensing the rights to use its proprietary software, provision of related IT professional services (which may or may not be considered essential to the functionality of the software license), related maintenance and technical support, as well as implementation and post-implementation consulting services.

Revenues are recognized in profit or loss when the revenues can be measured reliably, it is probable that the economic benefits associated with the transaction will flow to the Group and the costs incurred or to be incurred in respect of the transaction can be measured reliably. When the Group acts as a principal and is exposed to the risks associated with the transaction, revenues are presented on a gross basis. When the Group acts as an agent and is not exposed to the risks and rewards associated with the transaction, revenues are presented on a net basis. Revenues are measured at the

fair value of the consideration less any trade discounts, volume rebates and returns.

The Group generally considers all arrangements with payment terms extending beyond a minimum of six or a maximum of twelve months from the delivery of the elements not to be fixed or determinable. If the fee is not fixed or determinable, revenue is recognized as payments become due from the customer, provided that all other revenue recognition criteria have been met.

The Group generally does not grant a right of return to its customers. When a right of return exists, revenue is deferred until the right of return expires, at which time revenue is recognized, provided that all other revenue recognition criteria are met. Deferred revenue includes unearned amounts received under maintenance and support contracts and amounts received from customers but not yet recognized as revenues.

The Group perform ongoing credit evaluations on its customers. Under certain circumstances, the Group may require prepayment. An allowance for doubtful accounts is determined with respect to those amounts that we determine to be doubtful of collection. Provisions for doubtful accounts were recorded in general and administrative expenses.

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**NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES (Cont.)**

Following are the specific revenue recognition criteria which must be met before revenue is recognized by the Company and its subsidiaries:

i. Revenues from software solutions and services:

a) Revenues from contracts based on actual inputs. Revenues from master agreements based on actual inputs are recognized based on actual labor hours.

b) Outsourcing - these agreements are similar in nature to agreements that are based on actual labor hours. The Group allocates employees to projects that are generally managed by the customers at their charge based on the pricing of labor hours. Revenues are recognized based on actual labor hours.

Certain of the software license sales, mainly those consummated as part of an overall solution offered to a customer, may also include significant implementation and customization services with respect to such sales which are deemed essential to the functionality of the license. In addition, the Group also provides consulting services that are not deemed essential to the functionality of the license, as well as outsourcing IT services.

With respect to revenues that involve significant implementation and customization services to customer specific requirements and which are considered essential to the functionality of the product offered (for example when the Group sells software licenses as part of an overall solution offered to a customer that combines the sale of software licenses which includes significant implementation that is considered essential to the functionality of the license) whether generated by fixed-price or time-and-materials contracts the Company accounts for revenues for the services together with the software under contract, using the percentage-of-completion method. The percentage-of-completion method is used when the required services are quantifiable, based on the estimated number of labor hours necessary to complete the project, and under that method revenues are recognized using labor hours incurred as the measure of progress towards completion. This type of revenues is included in the Company's Proprietary software products and related services and software services revenue streams.

The use of the percentage-of-completion method for revenue recognition requires the use of various estimates, including among others, the extent of progress towards completion, contract completion costs and contract revenue. Profit to be recognized is dependent upon the accuracy of estimated progress, achievement of milestones and other incentives and other cost estimates.

Such estimates are dependent upon various judgments we make with respect to those factors, and some are difficult to accurately determine until the project is significantly underway. Progress is evaluated each reporting period. The Group recognizes adjustments to profitability on contracts utilizing the percentage-of-completion method on a cumulative basis, when such adjustments are identified. The Group has a history of making reasonably dependable estimates of the extent of progress towards completion, contract revenue and contract completion costs on our long-term contracts. However, due to uncertainties inherent in the estimation process, it is possible that actual completion costs may vary from estimates.

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If our actual results turn out to be materially different than the Group's estimates, or if the Group does not manage the project properly within the projected periods of time or satisfy its obligations under the contract, project margins may be significantly and negatively affected, which may result in losses on existing contracts.

Estimates of total project requirements are based on prior experience of customization, delivery and acceptance of the same or similar technology, and are reviewed and updated regularly by management. After delivery, if uncertainty exists about customer acceptance of the software, license revenue is not recognized until acceptance. Provisions for estimated losses on uncompleted contracts are made in the period in which such losses are first determined, in the amount of the estimated loss on the entire contract.

ii. Revenues from sales, distribution and support of software products:

The Group recognizes revenues from the sale of software (i) only after the significant risks and rewards of ownership of the software have been transferred to the buyer for which a necessary condition is delivery of the software, either physically or electronically, or providing the right to use or permission to make copies of the software, (ii) the Group does not retain any continuing management involvement that is associated with ownership and does not retain the effective control of the sold software, (iii) the amount of revenues can be measured reliably, (iv) it is probable that the economic benefits associated with the transaction will flow in to us and (v) the costs incurred or to be incurred in respect of the transaction can be measured reliably

The Group reports income on a gross basis since it acts as a principal and bears the risks and rewards derived from the transaction. The Group recognizes revenues from providing software related services.

Revenue from third-party sales is recorded at a gross or net amount according to certain indicators. The application of these indicators for gross and net reporting of revenue depends on the relative facts and circumstances of each sale and

requires significant judgment.

Revenues from sale agreements that do not provide a general right of return and consist of multiple elements such as hardware, service and support agreements are split into different accounting units which are separately recognized. An element only represents a separate accounting unit if and only if it has standalone value for the customer. Moreover, there should be reliable and objective evidence of the fair value of all the elements in the agreement or of the fair value of undelivered elements. Revenues from the various accounting units are recognized when the revenue recognition criteria are met with respect to all the elements of the accounting unit based on their specific type and only up to the amount of the consideration that is not contingent on completion or performance of the other elements in the contract.

Maintenance and support includes annual maintenance contracts providing for unspecified upgrades for new versions and enhancements on a when-and-if-available basis for an annual fee. The right for unspecified upgrades for new versions and enhancements on a when-and-if-available basis does not specify the features, functionality and release date of future product enhancements for the customer to know what will be made available and the general timeframe in which it will be delivered. Revenues from maintenance services are recognized on a straight-line basis at the relative portion of the maintenance contract that is determined for each reporting year. Revenues that have been received before the respective service has been provided are carried to deferred income. Maintenance and support revenue included in multiple element arrangements is deferred and recognized on a straight-line basis over the term of the maintenance and support agreement.

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iii. Revenues from training and implementation services:

Revenues from trainings and implementations are recognized when providing the service. Revenues from training services in respect of courses conducted over a period of up to 3 months will be recognize over the period of the course. Revenues from training services in respect of courses ordered in advance and long-term or short term (for a period of up to a year) retraining courses months will be recognized over the period of the course. Revenues from projects which usually ordered by organizations, will be recognize under the actual inputs recognize using the basis hours actual invested in the project.

iv. Revenues from hardware products and infrastructure solutions:

Revenues from hardware products and infrastructure solutions are recognized after all the significant risks and rewards of ownership of the products have been transferred to the buyer. The Group does not retain any continuing management involvement that is associated with ownership and does not retain the effective control of the sold products, the amount of revenues can be measured reliably, it is probable that the economic benefits associated with the transaction will flow to the Group and the costs incurred or to be incurred in respect of the transaction can be measured reliably.

14) Government grants:

Government grants are recognized when there is reasonable assurance that the grants will be received and the Group will comply with the attached conditions. Government grants received from the Office of the Chief Scientist in Israel ("OCI") are recognized upon receipt as a liability if future economic benefits are expected from the research project that will result in royalty-bearing sales. A liability for the loan is first measured at fair value using a discount rate that reflects a market rate of interest. The difference between the amount of the grant received and the fair value of the liability is accounted for as a Government grant and recognized as a reduction of research and development expenses. After initial recognition, the liability is measured at amortized cost using the effective interest method.

Royalty payments are treated as a reduction of the liability. If no economic benefits are expected from the research activity, the grant receipts are recognized as a reduction of the related research and development expenses. In that event, the royalty obligation is treated as a contingent liability in accordance with IAS 37.

In each reporting date, the Group evaluates whether there is reasonable assurance that the liability recognized, in whole or in part, will not be repaid (since the Group will not be required to pay royalties) based on the best estimate of future sales and using the original effective interest method, and if so, the appropriate amount of the liability is derecognized against a corresponding reduction in research and development expenses. Amounts paid as royalties are recognized as settlement of the liability.



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15)

Debentures:

The Group accounts for outstanding principal amount of debentures as long-term liability, in accordance with IAS 39, with current maturities classified as short-term liabilities. The Group identifies and separates equity components contains in convertible debentures by first determining the liability component, in accordance with IAS 32, based on the fair value of an equivalent non-convertible liability. The conversion component valued is being determined to be the residual amount. Debt issuance costs are capitalized and reported as deferred financing costs, which are amortized over the life of the debentures using the effective interest rate method.

16)

Taxes on income:

Current or deferred taxes are recognized in profit or loss, except to the extent that they relate to items which are recognized in other comprehensive income or equity.

Current taxes:

The current tax liability is measured using the tax rates and tax laws that have been enacted or substantively enacted by the reporting date as well as adjustments required in connection with the tax liability in respect of previous years.

Deferred taxes:

Deferred taxes are computed in respect of temporary differences between the carrying amounts in the financial statements and the amounts attributed for tax purposes. Deferred taxes are measured at the tax rate that is expected to apply when the asset is realized or the liability is settled, based on tax laws that have been enacted or substantively

enacted by the reporting date. Deferred tax assets are reviewed at each reporting date and reduced to the extent that it is not probable that they will be utilized. Deductible carryforward losses and temporary differences for which deferred tax assets had not been recognized are reviewed at each reporting date and a respective deferred tax asset is recognized to the extent that their utilization is probable.

Taxes that would apply in the event of the disposal of investments in investees have not been taken into account in computing deferred taxes, as long as the disposal of the investments in investees is not probable in the foreseeable future. Also, deferred taxes that would apply in the event of distribution of earnings by investees as dividends have not been taken into account in computing deferred taxes, since the distribution of dividends does not involve an additional tax liability or since it is the Company's policy not to initiate distribution of dividends from a subsidiary that would trigger an additional tax liability.

Taxes on income that relate to distributions of an equity instrument and to transaction costs of an equity transaction are accounted for pursuant to IAS 12.

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Deferred taxes are offset if there is a legally enforceable right to offset a current tax asset against a current tax liability and the deferred taxes relate to the same taxpayer and the same taxation authority.

17)Leases:

The criteria for classifying leases as finance or operating leases depend on the substance of the agreements and are made at the inception of the lease in accordance with the following principles as set out in IAS 17.

The Group as lessee:

i. Financial leases:

A lease that transfers substantially all the risks and rewards incidental to ownership of the leased asset to the Group is classified as a finance lease. At the commencement of the lease term, the leased asset is measured at the lower of the fair value of the leased asset or the present value of the minimum lease payments. The leased asset is depreciated over the shorter of its useful life and the lease term.

ii. Operating leases:

Leases in which substantially all the risks and rewards of ownership of the leased asset are not transferred to the Group are classified as operating leases. Lease payments are recognized as an expense in profit or loss on a straight-line basis over the lease term.

18)Property, plant and equipment, net

Property, plant and equipment are measured at cost, including directly attributable costs, less accumulated depreciation, accumulated impairment losses and any related investment grants and excluding day-to-day servicing expenses. Cost includes spare parts and auxiliary equipment that are used in connection with plant and equipment. The cost of an item of property, plant and equipment comprises the initial estimate of the costs of dismantling and removing the item and restoring the site on which the item is located.

Depreciation is calculated on a straight-line basis over the useful life of the assets at annual rates as follows:

	%
Computers, software and peripheral equipment	7-33 (mainly 33%)
Office furniture and equipment	6-33
Motor vehicles	15
Buildings	2-4

Leasehold improvements are amortized using the straight-line method over the term of the lease (including option terms that are deemed to be reasonably assured) or the estimated useful life of the improvements, whichever is shorter.

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The useful life, depreciation method and residual value of an asset are reviewed at least each year-end (at the end of the year) and any changes are accounted for prospectively as a change in accounting estimate. Depreciation of an asset ceases at the earlier of the date that the asset is classified as held for sale and the date that the asset is derecognized. For impairment testing of property, plant and equipment, see Note 2(21) below.

19)

Research and development costs:

Research expenditures incurred in the process of software development are recognized in profit or loss when incurred. An intangible asset arising from a software development project or from the development phase of an internal project is recognized if the Group can demonstrate the technical feasibility of completing the intangible asset so that it will be available for use or sale; the Group's intention to complete the intangible asset and use or sell it; the ability to use or sell the intangible asset; how the intangible asset will generate future economic benefits; the availability of adequate technical, financial and other resources to complete the intangible asset; and the ability to measure reliably the respective expenditure asset during its development. The Group establishes technological feasibility upon completion of a detailed program design or working model.

Research and development costs incurred between completion of the detailed program design and the point at which the product is ready for general release, have been capitalized.

Capitalized software costs are measured at cost less any accumulated amortization and any accumulated impairment losses on a product by product basis. Amortization of capitalized software costs begin when development is complete and the product is available for use. The Group considers a product to be available for use when the Group completes its internal validation of the product that is necessary to establish that the product meets its design specifications including functions, features, and technical performance requirements. Internal validation includes the completion of coding, documentation and testing that ensure bugs are reduced to a minimum. The internal validation of the product takes place a few weeks before the product is made available to the market. In certain instances, The Group enters into

a short pre-release stage, during which the product is made available to a selected number of customers as a beta program for their own review and familiarization. Subsequently, the release is made generally available to customers. Once a product is considered available for use, the capitalization of costs ceases and amortization of such costs to “cost of sales” begins.

Capitalized software costs are amortized on a product by product basis by the straight-line method over the estimated useful life of the software product (between 5-7 years, due to their high rates of acceptance, the continued reliance on these products by existing customers, and the demand for such products from prospective customers, all of which validate the Group’s expectations) which provides greater amortization expense compared to the revenue-curve method.

Research and development costs incurred in the process of developing product enhancements are generally charged to expenses as incurred.

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The Group assesses the recoverability of its Capitalized software costs on a regular basis by assessing the net realizable value of these intangible assets based on the estimated future gross revenues from each product reduced by the estimated future costs of completing and disposing of it, including the estimated costs of performing maintenance and customer support over its remaining economical useful life using internally generated projections of future revenues generated by the products, cost of completion of products and cost of delivery to customers over its remaining economical useful life. During the years ended December 31, 2015, 2016 and 2017, no such unrecoverable amounts were identified.

20)

Other intangible assets:

Separately acquired intangible assets are measured on initial recognition at cost including directly attributable costs. Intangible assets acquired in a business combination are measured at fair value at the acquisition date. Expenditures relating to internally generated intangible assets, excluding capitalized development costs, are recognized in profit or loss when incurred.

According to management's assessment, intangible assets with a finite useful life are amortized over their useful life and reviewed for impairment whenever there is an indication that the asset may be impaired. The amortization period and the amortization method for an intangible asset are reviewed at least at each year end

Other intangible assets are comprised mainly of customer-related intangible assets, backlogs, brand names, capitalized courses development costs, non-compete agreements and acquired technology and Patent, and are amortized over their useful lives using a method of amortization that reflects the pattern in which the economic benefits of the intangible assets are consumed or otherwise used up. The useful life of intangible assets is as follows:

	Years
Customer relationship and acquired technology	3-15
Brand names	5
Backlog, non-compete agreements and other intangibles	1-10
Patent	10

Gains or losses arising from the derecognition of an intangible asset are determined as the difference between the net disposal proceeds and the carrying amount of the asset and are recognized in the statement of profit or loss.

Intangible assets with indefinite useful lives are not systematically amortized and are tested for impairment annually or whenever there is an indication that the intangible asset may be impaired.

The useful life of these assets is reviewed annually to determine whether their indefinite life assessment continues to be supportable. If the events and circumstances do not continue to support the assessment, the change in the useful life assessment from indefinite to finite is accounted for prospectively as a change in accounting estimate and on that date the asset is tested for impairment. Commencing from that date, the asset is amortized systematically over its useful life.

The Group assesses the recoverability of its intangible assets on a regular basis by determining whether the amortization of the asset over its remaining useful life can be recovered through undiscounted future operating cash flows from the specific software product sold. During the years ended December 31, 2015, 2016 and 2017, no unrecoverable amounts were identified.



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21) Impairment of non-financial assets:

The Group evaluates the need to record an impairment of non-financial assets (property, plant and equipment, capitalized software costs and other intangible assets, goodwill, investments in joint venture) whenever events or changes in circumstances indicate that the carrying amount is not recoverable.

If the carrying amount of non-financial assets exceeds their recoverable amount, the assets are reduced to their recoverable amount. The recoverable amount is the higher of fair value less costs of sale and value in use. In measuring value in use, the expected future cash flows are discounted using a pre-tax discount rate that reflects the risks specific to the asset. The recoverable amount of an asset that does not generate independent cash flows is determined for the cash-generating unit to which the asset belongs. Impairment losses are recognized in profit or loss.

An impairment loss of an asset, other than goodwill, is reversed only if there have been changes in the estimates used to determine the asset's recoverable amount since the last impairment loss was recognized. Reversal of an impairment loss, as above, shall not be increased above the lower of the carrying amount that would have been determined (net of depreciation or amortization) had no impairment loss been recognized for the asset in prior years and its recoverable amount. The reversal of impairment loss of an asset presented at cost is recognized in profit or loss.

The following criteria are applied in assessing impairment of these specific assets:

i. Goodwill in respect of subsidiaries:

For the purpose of impairment testing, goodwill acquired in a business combination is allocated, at the acquisition date, to each of our cash-generating units that are expected to benefit from the synergies of the combination.

The Group reviews goodwill for impairment once a year, on December 31, or more frequently if events or changes in circumstances indicate that there is an impairment.

Goodwill is tested for impairment by assessing the recoverable amount of the cash-generating unit (or group of cash-generating units) to which the goodwill has been allocated. An impairment loss is recognized if the recoverable amount of the cash-generating unit (or group of cash-generating units) to which goodwill has been allocated is less than the carrying amount of the cash-generating unit (or group of cash-generating units). Any impairment loss is allocated first to goodwill. Impairment losses recognized for goodwill cannot be reversed in subsequent periods.

ii. Investment in associate or joint venture using the equity method:

After application of the equity method, the Group determines whether it is necessary to recognize any additional impairment loss with respect to the investment in associates or joint ventures. The Group determines at each reporting date whether there is objective evidence that the carrying amount of the investment in the associate or the joint venture is impaired. The test of impairment is carried out with reference to the entire investment, including the goodwill attributed to the associate or the joint venture.

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**NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES (Cont.)**

During the years ended December 31, 2015, 2016 and 2017, no impairment indicators were identified.

22)

Financial instruments:

A.

Financial assets:

Financial assets within the scope of IAS 39 are initially recognized at fair value plus directly attributable transaction costs, except for financial assets measured at fair value through profit or loss in respect of which transaction costs are recorded in profit or loss. After initial recognition, the accounting treatment of financial assets is based on their classification as follows:

i. Financial assets at fair value through profit or loss:

This category includes financial assets held for trading and a dividend preference derivative in TSG (See Note 8):

ii. Loans and receivables:

Loans and receivables are investments with fixed or determinable payments that are not quoted in an active market. After initial recognition, loans are measured based on their terms at amortized cost plus directly attributable transaction costs using the effective interest method and less any impairment losses. Short-term borrowings are measured based on their terms, normally at face value.

iii. Available-for-sale financial assets:

Available-for-sale financial assets are (non-derivative) financial assets that are designated as available for sale or are not classified in any of the three preceding categories. After initial recognition, available-for-sale financial assets are measured at fair value. Gains or losses from fair value adjustments, except for interest, exchange rate differences that relate to debt instruments and dividends from an equity instrument, are recognized in other comprehensive income. When the investment is disposed of or in case of impairment, the other comprehensive income (loss) is transferred to profit or loss.

B.

Financial liabilities:

Financial liabilities are initially recognized at fair value. Loans and other liabilities measured at amortized cost are presented less direct transaction costs. After initial recognition, the accounting treatment of financial liabilities is based on their classification as follows:

i. Financial liabilities at amortized cost:

After initial recognition, loans and other liabilities are measured based on their terms at amortized cost less directly attributable transaction costs using the effective interest method.

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ii. Financial liabilities at fair value through profit or loss:

Financial liabilities at fair value through profit or loss include financial liabilities classified as held for. Derivatives, including separated embedded derivatives, are classified as held for trading unless they are designated as effective hedging instruments.

C. Offsetting financial instruments:

Financial assets and financial liabilities are offset and the net amount is presented in the statement of financial position if there is a legally enforceable right to set off the recognized amounts and there is an intention either to settle on a net basis or to realize the asset and settle the liability simultaneously.

The right of set-off must be legally enforceable not only during the ordinary course of business of the parties to the contract but also in the event of bankruptcy or insolvency of one of the parties. In order for the right of set-off to be currently available, it must not be contingent on a future event, there may not be periods during which the right is not available, or there may not be any events that will cause the right to expire.

D. Compound financial instruments:

Convertible debentures which contain both an equity component and a liability component are separated into two components. This separation is performed by first determining the liability component based on the fair value of an i.equivalent non-convertible liability. The value of the conversion component is determined to be the residual amount. Directly attributable transaction costs are apportioned between the equity component and the liability component based on the allocation of proceeds to the equity and liability components.

Convertible debentures that are denominated in foreign currency contain two components: the conversion component and the debt component. The liability conversion component is initially recognized as a financial derivative at fair value. The balance is attributed to the debt component. Directly attributable transaction costs are allocated between the liability conversion component and the liability debt component based on the allocation of the proceeds to each component.

E.

Embedded derivatives:

The Group assesses the existence of an embedded derivative and whether it is required to be separated from a host contract when the Group first becomes party to the contract. Reassessment of the need to separate an embedded derivative only occurs if there is a change in the terms of the contract that significantly modifies the cash flows that would otherwise be required.

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F. Issue of a unit of securities:

The issue of a unit of securities involves the allocation of the proceeds received (before issue expenses) to the securities issued in the unit based on the following order: financial derivatives and other financial instruments measured at fair value in each period. Then fair value is determined for financial liabilities that are measured at amortized cost. The proceeds allocated to equity instruments are determined to be the residual amount. Issue costs are allocated to each component pro rata to the amounts determined for each component in the unit.

G. Put option granted to non-controlling interests:

When the Group grants non-controlling interests a put option to sell part or all of their interests in a subsidiary during a certain period, on the date of grant, the non-controlling interests are classified as a financial liability under redeemable non-controlling interests.

The Group remeasures the financial liability at the end of each reporting period based on the estimated present value of the consideration to be transferred upon the exercise of the put option. If the Group has present ownership of the non-controlling interests, these non-controlling interests are accounted for as if they are held by the Group and changes in the amount of the liability are carried to profit or loss. If the Group does not have present ownership, the interests are accounted for using the partial recognition method. Accordingly, a portion of net profit attributable to non-controlling interests is still allocated to profit or loss but at the end of the reporting period the non-controlling interests are reclassified as a financial liability. The difference between non-controlling interests at the end of the reporting period and the present value of the liability is recognized directly in equity of the Group, under "Adjustment to redeemable non-controlling interests". If the option is exercised in subsequent periods, the consideration paid upon exercise is treated as settlement of the liability. If the option expires, the liability is settled and it is a portion of the investment in the subsidiary disposed of, without loss of control therein.

The following table provides a reconciliation of the redeemable non-controlling interests:

January 1, 2016	\$18,751
Net income attributable to redeemable non-controlling interests	2,124
Share-based compensation attributable to redeemable non-controlling interests	215
Adjustments in redeemable non-controlling interests to fair value	715
Increase in redeemable non-controlling interest as part of acquisitions	(*)26,029
Increase in redeemable non-controlling interest due to change in ownership in subsidiaries	292
Dividend in redeemable non-controlling interests	(1,537 )
Foreign currency translation adjustments	(105 )
December 31, 2016	\$46,484

\*) Adjustment to comparative data (See Note 4(iv)(f)).

January 1, 2017	\$46,484
Net income attributable to redeemable non-controlling interests	3,671
Share-based compensation attributable to redeemable non-controlling interests	52
Change in redeemable non-controlling interests to fair value	4,872
Redeemable non-controlling interests reclassification to non-controlling interests	(2,440 )
Dividend in redeemable non-controlling interests	(3,928 )
Foreign currency translation adjustments	4,165
December 31, 2017	\$52,876



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H. Derecognition of financial instruments:

i. Financial assets:

A financial asset is derecognized when the contractual rights to the cash flows from the financial asset expire or the Group has transferred its contractual rights to receive cash flows from the financial asset or assumes an obligation to pay the cash flows in full without material delay to a third party, and in addition it has transferred substantially all the risks and rewards of the asset, or has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

A transaction involving factoring of accounts receivable and credit card vouchers is derecognized when the abovementioned conditions are met.

If the Group transfers its rights to receive cash flows from an asset and neither transfer nor retains substantially all the risks and rewards of the asset nor transfers control of the asset, a new asset is recognized to the extent of the Group's continuing involvement in the asset. When continuing involvement takes the form of guaranteeing the transferred asset, the extent of the continuing involvement is the lower of the original carrying amount of the asset and the maximum amount of consideration received that the Company could be required to repay. As of December 31, 2017, the Group has no open factoring transactions.

ii. Financial liabilities:

A financial liability is derecognized when it is extinguished, that is when the obligation is discharged or cancelled or expires. A financial liability is extinguished when the debtor (the Group) discharges the liability by paying in cash,

other financial assets, goods or services or is legally released from the liability.

I. Impairment of financial assets:

The Group assesses at the end of each reporting period whether there is any objective evidence of impairment of a financial asset or group of financial assets as follows:

i. Financial assets carried at amortized cost:

Objective evidence of impairment exists when one or more events that have occurred after initial recognition of the asset have a negative impact on the estimated future cash flows. The amount of the loss recorded in profit or loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows (excluding future credit losses that have not yet been incurred) discounted at the financial asset's original effective interest rate. If the financial asset has a variable interest rate, the discount rate is the current effective interest rate. In a subsequent period, the amount of the impairment loss is reversed if the recovery of the asset can be related objectively to an event occurring after the impairment was recognized. The amount of the reversal, up to the amount of any previous impairment, is recorded in profit or loss.

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ii. Available-for-sale financial assets:

For equity instruments classified as available-for-sale financial assets, evidence of impairment includes a significant or prolonged decline in the fair value of the asset below its cost and evaluation of changes in the technological, economic or legal environment or in the market in which the issuer of the instrument operates. The determination of a significant or prolonged impairment depends on the circumstances at each reporting date. In making such a determination, historical volatility in fair value is considered, as well as a decline in fair value of 20% or more, or a decline in fair value whose duration is six months or more. Where there is evidence of impairment, the cumulative loss recorded in other comprehensive income is reclassified to profit or loss. In subsequent periods, any reversal of the impairment loss is recognized in other comprehensive income.

During 2015, 2016 and 2017 the Company did not recognize an impairment charge over its investments in available-for-sale marketable securities.

23)

Fair value measurement

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair value measurement is based on the assumption that the transaction will take place in the asset's or the liability's principal market, or in the absence of a principal market, in the most advantageous market.

The fair value of an asset or a liability is measured using the assumptions that market participants would use when pricing the asset or liability, assuming that market participants act in their economic best interest. Fair value measurement of a non-financial asset takes into account a market participant's ability to generate economic benefits by using the asset in its highest and best use or by selling it to another market participant that would use the asset in its

highest and best use. The Group uses valuation techniques that are appropriate in the circumstances and for which sufficient data are available to measure fair value, maximizing the use of relevant observable inputs and minimizing the use of unobservable inputs.

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**NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES (Cont.)**

All assets and liabilities measured at fair value or for which fair value is disclosed are categorized into levels within the fair value hierarchy based on the lowest level input that is significant to the entire fair value measurement:

Level  
1 -quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level  
2 -inputs other than quoted prices included within Level 1 that are observable directly or indirectly.

Level  
3 -inputs that are not based on observable market data (valuation techniques which use inputs that are not based on observable market data).

Assets and liabilities measured at fair value on a recurring basis are comprised of marketable securities, foreign currency forward contracts and contingent consideration of acquisitions (see Note 7).

24)

Treasury shares:

Company shares held by the Company and/or subsidiaries are recognized at cost of purchase and presented as a deduction from equity. Any gain or loss arising from a purchase, sale, issue or cancellation of treasury shares is recognized directly in equity.

25)

Provisions

A provision in accordance with IAS 37 is recognized when the Group has a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation. If the effect is material, provisions are measured according to the estimated future cash flows discounted using a pre-tax interest rate that reflects the market assessments of the time value of money and, where appropriate, those risks specific to the liability. When the Group expects part or all of the expense to be reimbursed, for example under an insurance contract, the reimbursement is recognized as a separate asset but only when the reimbursement is virtually certain. The expense is recognized in the statement of profit or loss net of any reimbursement.

Following are the types of provisions included in the financial statements:

i. Legal claims

A provision for claims is recognized when the Group has a present legal or constructive obligation as a result of a past event, it is more likely than not that an outflow of resources embodying economic benefits will be required by the Group to settle the obligation and a reliable estimate can be made of the amount of the obligation.

ii. Contingent liability recognized in a business combination

A contingent liability in a business combination is measured at fair value upon initial recognition. In subsequent periods, it is measured at the higher of the amount initially recognized less, when appropriate, cumulative amortization, and the amount that would be recognized at the end of the reporting period in accordance with IAS 37.

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**NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES (Cont.)**

26) Combination of businesses under common control

A business combination involving business entities under common control is a business combination whereby all of the combining business entities are ultimately controlled by the same party or parties, both before and after the business combination, and that control is not transitory. This refers in particular to transactions such as a transfer of companies or ventures between individual companies within a capital group, or a merger of a parent company with its subsidiary.

The effects of combinations of businesses under common control are accounted for by the Group by the pooling of interests method, assuming that: assets and liabilities of the combining business entities are measured at their carrying values as disclosed in the Group's consolidated financial statements; merger-related transaction costs are expensed in the income statement (financial expenses); mutual balances of accounts receivable/payable are eliminated; any difference between the purchase price paid/transferred and the value of net assets acquired (at their carrying values disclosed in the consolidated financial statements) shall be recognized in equity of the acquirer (such amounts recognized in equity are not included in reserve capital, and therefore they are not distributable).

On August 18, 2015 (the "Acquisition Date"), Sapiens consummated the acquisition from Asseco of all issued and outstanding shares of Insseco Sp. Z O.O. ("Insseco"). Asseco is the ultimate parent company of Sapiens, through Asseco's holdings in Formula, which is the direct parent company of Sapiens. Insseco is a newly established company into which Asseco had transferred all of its Polish insurance employees, certain fixed assets, certain customer contracts and certain software, including intellectual property rights. Insseco has an established presence in the Polish insurance market, and services major insurance customers in Poland, including top tier insurance carriers

The acquisition of Insseco from Asseco, is a transaction between entities under common control, and therefore accounted for under the pooling of interest method. As the common control commenced on December 23, 2014, the balance sheets as of December 31, 2014 of Sapiens and, as such, of Formula were adjusted to reflect the carrying

amounts combination between Sapiens and Insseco. The results of Sapiens and of Formula for the twelve-month period ended December 31, 2015 were also adjusted to reflect the combination with Insseco, accordingly.

Under the pooling-of-interests method, the equity accounts of the combining entities are combined and the difference between the consideration paid and the net assets acquired is reflected as an equity transaction (i.e., distribution to parent company). As opposed to the purchase method of accounting, no intangible assets are recognized in the transaction, other than those existed in the combining entities and no goodwill is recognized as a result of the combination.

The application of the pooling-of-interests method with respect to the acquisition of Insseco increased the total assets, liabilities and equity as of December 31, 2014 by \$4,387, \$2,290, and \$2,097, respectively. Revenues, pretax income and net income of Insseco for the twelve-month period ended December 31, 2015, which are included in the consolidated statements of profit or loss amounted to \$10,516, \$1,324 and \$1,165, respectively (see additional information in Note 4(ii)(a)).



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**NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES (Cont.)**

27) Derivative financial instruments designated as hedges:

A material portion of the Group's revenues, expenses and earnings is exposed to changes in foreign exchange rates. Depending on market conditions, foreign exchange risk is also managed through the use of derivative financial instruments. These financial instruments serve to protect net income against the impact of the translation into dollars of certain foreign exchange-denominated transactions. Therefore, The Group enters into contracts for derivative financial instruments such as forward currency contracts to hedge risks associated with foreign exchange rate and interest rate fluctuations.

The derivative instruments primarily hedge or offset exposures to Euro, Japanese Yen and New Israeli Shekel ("NIS") exchange rate fluctuations.

Any gains or losses arising from changes in the fair values of derivatives that do not qualify for hedge accounting are recorded immediately in profit or loss.

Hedges qualify for hedge accounting, among others, when at inception of the hedging relationship there is a formal designation and documentation of the hedging relationship and of the Group's risk management objective and strategy for undertaking the hedge. Hedges are assessed on an ongoing basis to determine whether they are highly effective during the reporting period for which the hedge is designated. Hedges are accounted for as follows:

i. Fair value hedges:

The change in the fair value of the derivative (the hedging item) and the hedged item is recognized in profit or loss. For fair value hedges relating to hedged items carried at amortized cost, the adjustment to carrying value is amortized to profit or loss over the remaining term to maturity. Any adjustment of the hedged financial instrument for which the effective interest rate method is used, is recognized in profit or loss. If the hedged item is derecognized, the unamortized changes to fair value are recognized immediately in profit or loss.

ii. Cash flow hedges:

The effective portion of the change in the fair value of the hedging instrument is recognized in other comprehensive income (loss) while any ineffective portion is recognized immediately in profit or loss.

Amounts recognized as other comprehensive income (loss) are reclassified to profit or loss when the hedged transaction affects profit or loss, such as when the hedged income or expense is recognized or when a forecasted transaction occurs. Where the hedged item is a non-financial asset or liability, their cost also includes the gain (loss) from the hedging instrument.

If the forecast transaction or firm commitment is no longer expected to occur, amounts previously recognized in other comprehensive income (loss) are reclassified to profit or loss. If the hedging instrument expires or is sold, terminated or exercised, or if its designation as a hedge is revoked, amounts previously recognized in other comprehensive income (loss) remain in other comprehensive income (loss) until the forecast transaction or firm commitment occurs.

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**NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES (Cont.)**

Hedge accounting is not applied to financial derivatives used as an economic hedge of financial assets and liabilities. At December 31, 2016 and 2017, the Group did not have any cash flow hedges.

28) Employee benefit liabilities:

The Group has several employee benefit plans:

i. Short-term employee benefits:

Short-term employee benefits are benefits that are expected to be settled wholly before twelve months after the end of the annual reporting period in which the employees render the related services. These benefits include salaries, paid annual leave, paid sick leave, recreation and social security contributions and are recognized as expenses as the services are rendered. A liability in respect of a cash bonus or a profit-sharing plan is recognized when the Group has a legal or constructive obligation to make such payment as a result of past service rendered by an employee and a reliable estimate of the amount can be made.

ii. Post-employment benefits:

The plans are normally financed by contributions to insurance companies and classified as defined contribution plans or as defined benefit plans.

Formula's and its Israeli investees' has defined with respect to their Israeli employee contribution plans pursuant to section 14 of Israel's Severance Pay Law, 1963 (the "Severance Pay Law") under which the Group pays fixed contributions and will have no legal or constructive obligation to pay further contributions if the fund does not hold sufficient amounts to pay all employee benefits relating to employee service in the current and prior periods. Contributions to the defined contribution plan in respect of severance or retirement pay are recognized as an expense when contributed concurrently with performance of the employee's services.

Formula's and its Israeli investees' also operates a defined benefit plan in respect of severance pay to their Israeli employees pursuant to the Severance Pay Law. According to the Law, employees are entitled to severance pay upon dismissal or retirement. The liability for termination of employment is measured using the projected unit credit method. The actuarial assumptions include rates of employee turnover and future salary increases based on the estimated timing of payment. The amounts are presented based on discounted expected future cash flows using a discount rate determined by reference to market yields at the reporting date on high quality corporate bonds that are linked to Israel's Consumer Price Index with a term that is consistent with the estimated term of the severance pay obligation.

In respect of its severance pay obligation to certain of its employees, the Group makes current deposits in pension funds and insurance companies ("the plan assets"). Plan assets comprise assets held by a long-term employee benefit fund or qualifying insurance policies. Plan assets are not available to the Group's own creditors and cannot be returned directly to the Group.

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**NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES (Cont.)**

The liability for employee benefits shown in the statement of financial position reflects the present value of the defined benefit obligation less the fair value of the plan assets. Remeasurements of the net liability are recognized in other comprehensive income in the period in which they occur.

Total expenses in respect of employee benefit liabilities for the years 2015, 2016 and 2017 were \$13,555 and \$14,470 and \$16,634, respectively.

29)

Earnings per share:

Earnings per share are calculated by dividing the net income attributable to equity holders of the Company by the weighted number of Ordinary shares outstanding during the period. Potential Ordinary shares are included in the computation of diluted earnings per share when their conversion decreases earnings per share from continuing operations. Potential Ordinary shares that are converted during the period are included in diluted earnings per share only until the conversion date and from that date in basic earnings per share. The Company's share of earnings of investees is included based on its share of earnings per share of the investees multiplied by the number of shares held by the Company.

30)

Concentration of credit risk

Financial instruments that potentially subject the Group to concentrations of credit risk consist principally of cash and cash equivalents, short-term bank deposits, restricted cash, trade receivables, marketable securities and foreign currency derivative contracts.

The majority of the Group's cash and cash equivalents, bank deposits and marketable securities are invested with major banks in Israel, the United States and Europe. Such cash and cash equivalents and short-term deposits in the United States may be in excess of insured limits and are not insured in other jurisdictions. Management believes that these financial instruments are held in financial institutions with high credit standing, and accordingly, minimal credit risk exists with respect to these investments.

The Group's marketable securities include investments in commercial and government bonds and foreign banks. The Group's marketable securities are considered to be highly liquid and have a high credit standing. In addition, managements of the Group's investees limit the amount that may be invested in any one type of investment or issuer, thereby reducing credit risk concentrations and consider their portfolios in foreign banks to be well-diversified (also refer to Note 5).

The Group's trade receivables are generally derived from sales to large organizations located mainly in Israel, North America, Europe and Asia Pacific. The Group performs ongoing credit evaluations of its customers and to date has not experienced any material losses. In certain circumstances, Formula and its investees may require letters of credit, other collateral or additional guarantees. From time to time, the Group sells certain of its accounts receivable to financial institutions, within the normal course of business.

The Group maintains an allowance for doubtful accounts receivable based upon management's experience and estimate of collectability of each outstanding invoice. The allowance for doubtful accounts is determined with respect to specific debts that are doubtful of collection. The bad debt expenses, net for the years ended December 31, 2015, 2016 and 2017 was \$747, \$652 and \$1,373, respectively. The risk of collection associated with accounts receivable is mitigated by the diversity and number of customers.

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**NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES (Cont.)**

From time to time, the Group transfers financial assets by factoring of accounts receivable and credit card vouchers to a financial institution IAS-39 establishes a standard for determining when a transfer of financial assets should be accounted for as a sale. Certain underlying conditions must be met for the transfer of financial assets to qualify for accounting as a sale. All sales of receivable were closed during the years and as so there are no outstanding sales of receivables as of December 31, 2015, 2016 and 2017.

The agreements pursuant to which the Company sells certain of its trade receivables are structured such that the Company (i) transfers the proprietary rights in the receivable from the Company to the financial institution; (ii) legally isolates the receivable from the Company's other assets, and presumptively puts the receivable beyond the legal reach of the Company and its creditors, even in bankruptcy or other receivership; (iii) confers on the financial institution the right to pledge or the receivable; and (iv) eliminates the Company's effective control over the receivable, in the sense that the Company is not entitled and shall not be obligated to repurchase the receivable other than in case of failure by the Company to fulfill its commercial obligation.

From time to time, the Group enters into foreign exchange forward and option contracts intended to protect against the changes in value of forecasted non-dollar currency cash flows. These derivative instruments are designed to offset a portion of the Company's non-dollar currency exposure (see Note 2 (27) above).

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**NOTE 3:- DISCLOSURE OF NEW STANDARDS IN THE PERIOD PRIOR TO THEIR ADOPTION**

1. IFRS 15, “Revenue from Contracts with Customers”:

IFRS 15 (“the new Standard”) was issued by the IASB in May 2014. The new Standard replaces IAS 18, “Revenue”, IAS 11, “Construction Contracts”, IFRIC 13, “Customer Loyalty Programs”, IFRIC 15, “Agreements for the Construction of Real Estate”, IFRIC 18, “Transfers of Assets from Customers” and SIC-31, “Revenue - Barter Transactions Involving Advertising Services”.

The new Standard introduces a five-step model that will apply to revenue earned from contracts with customers:

Step 1: Identify the contract with a customer, including reference to contract combination and accounting for contract modifications.

Step 2: Identify the separate performance obligations in the contract.

Step 3: Determine the transaction price, including reference to variable consideration, financing components that are significant to the contract, non-cash consideration and any consideration payable to the customer.

Step 4: Allocate the transaction price to the separate performance obligations on a relative stand-alone selling price basis using observable information, if it is available, or using estimates and assessments.

Step 5: Recognize revenue when a performance obligation is satisfied, either at a point in time or over time.

The Group has established for each of its subsidiaries an implementation team to analyze the potential impact the standard will have on the Group’s consolidated financial statements and related disclosures as well as on each of its subsidiaries business processes, systems and controls. This includes reviewing revenue contracts across all revenue streams and evaluating potential differences that would result from applying the requirements under the standard. The



Group has adopted the new standard on January 1, 2018 using the Modified Retrospective Adoption Transition Method.

The Group has completed its evaluation of the Standard and identified that the main impact of the new standard on its reporting relates to the way the Group accounts for term license arrangements and costs incurred for obtaining customer contracts. Specifically, under the current revenue standard, the Group recognizes both the term license and maintenance revenues ratably over the contract period whereas under the new revenue standard term license revenues are recognized upfront, upon delivery, and the associated maintenance revenues are recognized over the contract period. The Group also considered the impact of IFRS 15 with respect to the treatment of incremental costs of obtaining a contract, such as sales commissions. Under the Group's current accounting policy, sales commissions are expensed as incurred. The new standard requires the capitalization of all incremental costs that we incur to obtain a contract with a customer that it would not have incurred if the contract had not been obtained, provided we expect to recover the costs.

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**NOTE 3:- DISCLOSURE OF NEW STANDARDS IN THE PERIOD PRIOR TO THEIR ADOPTION (Cont.)**

The Company has applied the new standard with respect to Sapiens existing contracts for term license which are not substantially completed as of January 1, 2018. As a result, the Company expects to record a decrease to its deferred revenues of approximately \$1,500 mainly from upfront recognition of license revenue from term licenses, an asset of approximately \$600 related to incremental costs to obtain contracts which is mainly due to sales commissions and a decrease in non-controlling interests of \$500 to account for the Company's share interest in Sapiens.

The Company has completed its evaluation of the Standard and does not expect any other material change in our pattern of revenue recognition.

2. IFRS 9, "Financial Instruments":

In July 2014, the IASB issued the final and complete version of IFRS 9, "Financial Instruments" ("IFRS 9"), which replaces IAS 39, "Financial Instruments: Recognition and Measurement". IFRS 9 mainly focuses on the classification and measurement of financial assets and it applies to all assets in the scope of IAS 39.

According to IFRS 9, all financial assets are measured at fair value upon initial recognition. In subsequent periods, debt instruments are measured at amortized cost only if both of the following conditions are met:

the asset is held within a business model whose objective is to hold assets in order to collect the contractual cash flows.

the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Subsequent measurement of all other debt instruments and financial assets should be at fair value. IFRS 9 establishes a distinction between debt instruments to be measured at fair value through profit or loss and debt instruments to be measured at fair value through other comprehensive income.

Financial assets that are equity instruments should be measured in subsequent periods at fair value and the changes recognized in profit or loss or in other comprehensive income (loss), in accordance with the election by the Company on an instrument-by-instrument basis. If equity instruments are held for trading, they should be measured at fair value through profit or loss.

According to IFRS 9, the provisions of IAS 39 will continue to apply to derecognition and to financial liabilities for which the fair value option has not been elected.

According to IFRS 9, changes in fair value of financial liabilities which are attributable to the change in credit risk should be presented in other comprehensive income. All other changes in fair value should be presented in profit or loss.

IFRS 9 also prescribes new hedge accounting requirements.

IFRS 9 is to be applied for annual periods beginning on January 1, 2018. Early adoption is permitted.

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**NOTE 3:- DISCLOSURE OF NEW STANDARDS IN THE PERIOD PRIOR TO THEIR ADOPTION (Cont.)**

The Group believes that the amendments to IFRS 9 are not expected to have a material impact on the consolidated financial statements.

3. IFRS 16, "Leases":

In January 2016, the IASB issued IFRS 16, "Leases" ("the new Standard"). According to the new Standard, a lease is a contract, or part of a contract, that conveys the right to use an asset for a period of time in exchange for consideration.

According to the new Standard:

Lessees are required to recognize an asset and a corresponding liability in the statement of financial position in respect of all leases (except in certain cases) similar to the accounting treatment of finance leases according to the existing IAS 17, "Leases".

Lessees are required to initially recognize a lease liability for the obligation to make lease payments and a corresponding right-of-use asset. Lessees will also recognize interest and depreciation expense separately.

Variable lease payments that are not dependent on changes in the Consumer Price Index ("CPI") or interest rates, but are based on performance or use (such as a percentage of revenues) are recognized as an expense by the lessees as incurred and recognized as income by the lessors as earned.

In the event of change in variable lease payments that are CPI-linked, lessees are required to remeasure the lease liability and the effect of the remeasurement is an adjustment to the carrying amount of the right-of-use asset.

The new Standard includes two exceptions according to which lessees are permitted to elect to apply a method -similar to the current accounting treatment for operating leases. These exceptions are leases for which the underlying asset is of low value and leases with a term of up to one year.

The accounting treatment by lessors remains substantially unchanged, namely classification of a lease as a finance lease or an operating lease.

The Company is evaluating the possible effects of the new Standard. However, at this stage, the Company is unable to quantify the impact on the financial statements.

4. IFRIC 23 – “Treatment of uncertainty related to taxes on income”:

In June 2017, the IASB issued IFRIC 23, “Uncertainty over Income Tax Treatments” (“the Interpretation”). The Interpretation clarifies the rules of recognition and measurement of assets or liabilities in accordance with the provisions of IAS 12, “Income Taxes”, in situations of uncertainty involving income taxes. The Interpretation provides guidance on considering whether some tax treatments should be considered collectively, examination by the tax authorities, measurement to reflect uncertainty involving income taxes in the financial statements and accounting for changes in facts and circumstances underlying the uncertainty.

The Interpretation is to be applied in financial statements for annual periods beginning on January 1, 2019. Early adoption is permitted. Upon initial adoption, the Company will apply the Interpretation using one of two approaches:

Full retrospective adoption, without restating comparative data, by recording the cumulative effect through the date of initial adoption in the opening balance of retained earnings.

-Full retrospective adoption including restatement of comparative data.

The Company is evaluating the possible impact of the adoption of the Interpretation but are presently unable to assess its effect, if any, on our financial statements.

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**NOTE 4:- BUSINESS COMBINATION, SIGNIFICANT TRANSACTION AND SALE OF BUSINESS**

i. Formula

a. Acquisition of TSG IT Advanced Systems Ltd.

On May 9, 2016, Formula and Israel Aerospace Industries (IAI) concluded the joint purchase of TSG – a subsidiary and the military arm of Ness Technologies, engaged in the fields of command and control systems, intelligence, homeland security and cyber security. The total purchase price in the transaction amounted to \$51,532 in cash, with each of IAI and Formula acquiring 50% of TSG for \$25,766. TSG is a leading provider of core command and control systems to Israel’s defense organization, including the Israeli Defense Forces and the Israeli Police.

As TSG is jointly controlled by both Formula and IAI, its results of operations are reflected in the Company’s profit or loss using the equity method of accounting commencing May 9, 2016.

The following table summarizes the estimated fair values of the assets acquired and liabilities assumed by the Company at the date of acquisition:

Net Assets	\$1,824
Intangible assets	13,693
Backlog	2,221
Deferred tax liability	(3,948 )
Dividend preference derivative	2,140
Goodwill	9,836
Total assets acquired net of acquired cash	\$25,766

b. Acquisition of Michpal Micro Computers (1983) Ltd.

On January 3, 2017, the Company directly acquired all of the share capital of Michpal, an Israeli-based company that develops, sells and supports a proprietary on-premise payroll software solution for processing traditional payroll stubs to Israeli enterprise and payroll service providers, for a consideration of NIS 85,000 (approximately \$22,106) composed of the following:

Net Assets	\$ 139
Intangible assets	11,329
Deferred tax liability	(2,606 )
Goodwill	13,244

Total assets acquired net of acquired cash \$22,106

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**NOTE 4:- BUSINESS COMBINATION, SIGNIFICANT TRANSACTION AND SALE OF BUSINESS (Cont.)**

ii. Sapiens

a. Acquisition of Insseco

On August 18, 2015 (the “acquisition date”), Sapiens completed the acquisition from Asseco of all issued and outstanding shares of Insseco. As of the acquisition date, Asseco was the ultimate parent company of Sapiens, through holding in Formula, which is the direct parent company of Sapiens. Insseco is a newly established company into which Asseco had transferred all of its Polish insurance employees, certain fixed assets, certain customer contracts and certain software including intellectual property rights. Insseco has a team of approximately 140 insurance professionals and an established presence in the Polish insurance market, and services major insurance customers in Poland, including top tier insurance carriers.

Sapiens paid the acquisition consideration in cash, consisting of 34,300 Polish Zloty or approximately \$9,100. In addition, the transaction consideration includes upside or downside performance based payments relating to achievements of revenue goals and profitability over the next five years. If the aggregate revenues generated by Insseco from its activity from July 1, 2015 through June 30, 2020 exceed 90,000 Polish Zloty or approximately \$23,800, Asseco shall be entitled to receive additional amounts ranging from 3% to 15% of the excess amount of the respective revenues. If the aggregate revenues generated by Insseco for the period from July 1, 2015 through June 30, 2018 are below 84,000 Polish Zloty or \$22,200, the seller shall pay Sapiens an amount equal to 35% of the deficiency below such amount. In addition, the amounts payable to Asseco may be adjusted upwards or downwards as a result of changes in the profitability of a specific account that Sapiens acquired as part of the acquisition. The estimated fair value of the contingent payments as of December 31, 2017 is \$424.

The acquisition of Insseco from Asseco, which was as of the acquisition date the ultimate parent company of Sapiens, is a transaction between entities under common control, and therefore accounted for under the pooling of interest. Under the pooling-of-interests method, combination between two businesses under common control is accounted for at carrying amounts with retrospective adjustment of prior period financial statements, therefore balance sheet as of



December 31, 2014 of Sapiens and as such of Formula were adjusted to reflect the carrying amounts combination between Sapiens and Insseco. The results of Sapiens for the twelve-month period ended December 31, 2015 were also adjusted to reflect the combination with Insseco, accordingly.

Under the pooling-of-interests method, the equity accounts of the combining entities are combined and the difference between the consideration paid and the net assets acquired is reflected as an equity transaction (i.e., distribution to parent company). As opposed to the purchase method of accounting, no intangible assets are recognized in the transaction, other than those existed in the combining entities and no goodwill is recognized as a result of the combination. The application of the pooling-of-interests method with respect to the acquisition of Insseco increased the total assets, liabilities and equity as of December 31, 2014 by \$4,387, \$2,290, and \$2,097, respectively. Revenues, pretax income and net income of Insseco attributable to the Company's shareholders for the twelve-month period ended December 31, 2015, which are included in the consolidated statements of profit or loss amounted to \$10,516, \$1,324 and \$578, respectively.

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**NOTE 4:- BUSINESS COMBINATION, SIGNIFICANT TRANSACTION AND SALE OF BUSINESS (Cont.)**

b. Acquisition of Ibexi Solution Private Limited

On May 6, 2015, Sapiens completed the agreement to acquire all of outstanding shares of Ibexi Solution Private Limited (Ibexi), an India-based provider of insurance business and technology solutions, in total consideration of \$4,764 including a contingent obligation valued at \$949 on the acquisition date. As of December 31, 2017, the estimated fair value of the contingent payment is \$251. In addition, an amount of approximately \$1,805 is subject to continued employment and therefore was not part of the purchase price, but is recognized over the service period. Acquisition related costs were immaterial.

The following table summarizes the estimated fair values of the assets acquired and liabilities assumed, with reference to the acquisition as of the acquisition date:

Net assets	\$1,105
Intangible assets	1,315
Goodwill	2,344
Net assets acquired	\$4,764

c. Acquisition of Maximum Processing Inc.

On May 26, 2016, Sapiens entered into an agreement to purchase the entire share capital of Maximum Processing Inc.'s (MaxPro) for a consideration of \$4,278 (of which \$1,490 was deposited at closing in escrow). In addition, the seller has performance based payments relating to achievements of revenue and profitability targets over three years (2016-2018) of up to \$2,500. Such payments are also subject to continued employment and therefore, not part of the purchase price. MaxPro specializes in providing business and technology solutions across the insurance industry. Acquisition related costs were immaterial. As of December 31, 2017, the estimated fair value of the contingent

payment is \$422.

The following table summarizes the estimated fair values of the assets acquired and liabilities assumed, with reference to the acquisition as of the acquisition date:

Net assets	\$(240 )
Intangible assets	1,859
Goodwill	2,659

Net assets acquired \$4,278

d. Acquisition of 4Sight Business Intelligence Inc

On June 7, 2016, Sapiens entered into an agreement to purchase 100% of the total outstanding shares of 4Sight Business Intelligence Inc. (4Sight). 4Sight's system provides analytics software for the insurance industry. Sapiens paid the acquisition consideration in cash, consisting of \$330. In addition, the seller has performance based payments relating to achievements of revenue and profitability targets over three years (2016-2018) of up to \$2,200. Such payments are also subject to continued employment and therefore, are not part of the purchase price. Acquisition related costs were immaterial.

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**NOTE 4:- BUSINESS COMBINATION, SIGNIFICANT TRANSACTION AND SALE OF BUSINESS (Cont.)**

The following table summarizes the estimated fair values of the assets acquired and liabilities assumed, with reference to the acquisition as of the acquisition date:

Net assets	\$(145)
Intangible assets	279
Deferred taxes	(112)
Goodwill	308
Net assets acquired	\$330

e. Acquisition of StoneRiver, Inc

On February 28, 2017, Sapiens completed the acquisition of all of the outstanding shares of StoneRiver, Inc. (“StoneRiver”), a provider of technology solutions and services to the insurance industry for \$101,351. Sapiens related acquisition costs of \$1,348 is presented in general and administrative expenses.

The acquisition of StoneRiver expanded Sapiens presence and scale in the North American insurance market and allows Sapiens to offer its customers and partners a more extensive product portfolio in the industry.

The acquisition was accounted for by the purchase method and accordingly, the purchase price has been allocated according to the estimated fair value of the assets acquired and liabilities assumed of StoneRiver. The results of StoneRiver’s operations have been included in the consolidated financial statements since February 28, 2017.

The following table summarizes the estimated fair values of the assets acquired and liabilities assumed:

Current assets	\$ 16,785
Property and equipment	1,088
Intangible assets	38,145
Goodwill	77,014
Other long-term assets	78
Total assets acquired	\$ 133,110
Current liabilities	\$ 10,595
Deferred revenues	5,742
Deferred tax liabilities	15,071
Other long-term liabilities	351
Total liabilities acquired	\$ 31,759
Total purchase price	\$ 101,351

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**NOTE 4:- BUSINESS COMBINATION, SIGNIFICANT TRANSACTION AND SALE OF BUSINESS (Cont.)**

The following table sets forth the components of intangible assets associated with the acquisition and their annual amortization rates:

	Fair value
Developed technology	\$34,039
Customer relationships	3,333
Backlog	773
 Total intangible assets	 \$38,145

Revenues of StoneRiver for the period since the acquisition date through December 31, 2017, which are included in the consolidated financial statements, amounted to \$67,805.

f. Acquisition of KnowledgePrice.com:

On December 27, 2017, Sapiens signed a definitive agreement for the acquisition of all of the outstanding shares of KnowledgePrice.com's ("KnowledgePrice"), a Latvian company, specializes in digital insurance services and consulting. The Fair value of the total consideration amounted to \$5,720, including a cash consideration of \$4,068 (out of this amount \$3,758 was paid in December 2017 and \$310 was paid in January 2018), and a contingent obligation valued at \$1,652 at the acquisition date. In addition, the seller has performance based payments relating to achievements of revenue and profitability targets over three years (2018-2020) and retention payment of up to \$1,116 as of December 31, 2017, that are subject to continued employment, and therefore not part of the purchase price. According to a preliminary purchase price allocation, the purchase price has been allocated according to the estimated fair value of the assets acquired and liabilities assumed of KnowledgePrice.

The following table summarizes the estimated provisional <sup>(1)</sup> fair values of the assets acquired and liabilities assumed, with reference to the acquisition as of the acquisition date:

Net assets	\$783
Intangible assets	2,430
Deferred taxes	(365 )
Goodwill	2,872
Net assets acquired	\$5,720

(1) The estimated fair values of the tangible and intangible assets referring to acquisition which were made in 2017 are provisional and are based on information that was available as of the acquisition date to estimate the fair value of these amounts. Magic's management believes the information provides a reasonable basis for estimating the fair values of these amounts, but is waiting for additional information necessary to finalize those fair values. Therefore, provisional measurements of fair value reflected are subject to change. Magic expects to finalize the tangible and intangible assets valuation and complete the acquisition accounting as soon as practicable but no later than the measurement period.

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**NOTE 4:- BUSINESS COMBINATION, SIGNIFICANT TRANSACTION AND SALE OF BUSINESS (Cont.)**

iii.

Magic

a.

Acquisition of Comblack IT Ltd.

On April 14, 2015 Magic acquired a 70% interest in Comblack IT Ltd. (“Comblack”), an Israeli-based company that specializes in software professional and outsourced management services mainly for mainframes and complex large-scale environments, for a total consideration of \$1,821, of which \$1,523 was paid upon closing and \$298 which was payable contingent upon the acquired business meeting certain operational targets in 2015. Magic and the seller hold mutual Call and Put options respectively for the remaining 30% interest in Comblack. As a result of the Put option, Magic recorded redeemable non-controlling interest in the amount of \$989 on the acquisition date. Acquisition related costs were immaterial. The acquisition was accounted for by the purchase method.

The results of operations were included in the consolidated financial statements of the Company commencing April 1, 2015.

The following table summarizes the estimated fair values of the assets acquired and liabilities at the date of acquisition:

Net Assets, excluding cash acquired	\$(405 )
Redeemable non-controlling interests	(989 )
Intangible assets	1,249
Goodwill	1,966
 Total assets acquired net of acquired cash	 \$1,821



In March 2016, Magic paid the seller the remaining contingent payments for meeting the 2015 operational targets. As of December 31, 2017, the Comblack redeemable non-controlling interest amounted to \$7,442.

b. Acquisition of Infinigy Solutions LLC

On June 30, 2015 Magic acquired a 70% interest in Infinigy Solutions LLC (“Infinigy”), a US-based services company focused on expanding the development and implementation of technical solutions throughout the telecommunications industry with offices across the US, providing nationwide coverage and support for wireless engineering, deployment services, surveying, environmental service and project management, for a total consideration of \$6,527, of which \$5,600 was paid upon closing and \$927 is payable contingent upon the acquired business meeting certain operational targets in 2016 and 2017. Magic and the seller hold mutual Call and Put options respectively for the remaining 30% interest in Infinigy. As a result of the Put option, Magic recorded redeemable non-controlling interest in the amount of \$3,590. Acquisition related costs were immaterial. The acquisition was accounted for by the purchase method.

The results of operations were included in the consolidated financial statements of the Company commencing July 1, 2015.

The following table summarizes the estimated fair values of the assets acquired and liabilities at the date of acquisition:

Net Assets, excluding cash acquired	\$1,182
Redeemable non-controlling interests	(3,590)
Intangible assets	3,675
Goodwill	5,260
 Total assets acquired net of acquired cash	 \$6,527

In July 2016, Magic paid the seller \$534 with respect to the acquired business meeting certain of its 2016 operational targets. In 2017, the acquired business did not meet its operational targets and therefore as of December 31, 2017, the seller is not entitled to any additional contingent payments. As of December 31, 2017, the Infinigy redeemable non-controlling interest amounted to \$2,198.

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**NOTE 4:- BUSINESS COMBINATION, SIGNIFICANT TRANSACTION AND SALE OF BUSINESS (Cont.)**

c. Acquisition of Roshtov Software Industries Ltd.

On July 11, 2016 Magic acquired a 60% interest in Roshtov Software Industries Ltd. (“Roshtov”), an Israeli-based software company that is a market leader in Israel in patient record information systems, for a total cash consideration of \$20,550, which was paid upon closing. The purchaser and the seller hold mutual Call and Put options respectively for the remaining 40% interest in Roshtov. As a result of the Put option, Magic recorded redeemable non-controlling interest in the amount of \$14,012. Acquisition related costs were immaterial. The acquisition was accounted for by the purchase method.

The results of operations were included in the consolidated financial statements of the Company commencing July 2016.

The following table summarizes the estimated fair values of the assets acquired and liabilities at the date of acquisition:

Net Assets, excluding cash acquired	\$15
Redeemable non-controlling interests	(14,012)
Intangible assets	22,439
Deferred tax liabilities	(5,610 )
Goodwill	17,718
Total assets acquired net of acquired cash	\$20,550

As of December 31, 2017, Roshtov redeemable non-controlling interest amount to \$14,652.

d. Acquisition of Shavit Software (2009) Ltd.

On October 31, 2016 Magic acquired the entire share interests in Shavit Software (2009) Ltd., an Israeli-based company that specializes in software professional and outsourced management services, for a total consideration of \$6,836, of which \$4,699 was paid upon closing, \$2,137 (measured based on present value) was allocated to a deferred payment and contingent payment upon the acquired business meeting certain operational targets in 2017. Magic's management believes the acquisition will broaden its professional service offering to its existing and new customers in Israel. Acquisition related costs were immaterial. The acquisition was accounted for by the purchase method.

The results of operations were included in the consolidated financial statements of the Company commencing November 1, 2016.

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**NOTE 4:- BUSINESS COMBINATION, SIGNIFICANT TRANSACTION AND SALE OF BUSINESS (Cont.)**

The following table summarizes the estimated fair values of the assets acquired and liabilities at the date of acquisition:

Net Assets, excluding cash acquired	\$533
Intangible assets	3,489
Deferred tax liabilities	(871 )
Goodwill	3,685
Total assets acquired net of acquired cash	\$6,836

In 2017, Magic paid the seller \$924 with respect to deferred payment. The remaining obligation to the seller, allocated to deferred payment and contingent payment based on 2017 operational targets amounted to \$2,405, which is included under the Company's current "Liabilities in respect of business combinations". The amount was paid subsequent to the balance sheet date.

e. Other acquisitions by Magic in 2016 and 2017

During the years ended December 31, 2016 and 2017, Magic acquired additional activities whose influence on the financial statements of the Company was immaterial, for a total consideration of \$8,884 and \$1,050 respectively.

The following table summarizes the provisional estimated fair values of the assets acquired and liabilities at the date of acquisition:

	December 31,	
	2016	2017 <sup>(1)</sup>
Net Assets, excluding cash acquired	\$2,174	\$(1,822)
Non-controlling interests	(1,209)	-
Intangible assets	2,370	1,149
Deferred tax liabilities	(493 )	-
Goodwill	6,042	1,723
Total assets acquired net of acquired cash	\$8,884	\$1,050

(1) The estimated fair values of the tangible and intangible assets referring to acquisition which were made in 2017 are provisional and are based on information that was available as of the acquisition date to estimate the fair value of these amounts. Magic's management believes the information provides a reasonable basis for estimating the fair values of these amounts, but is waiting for additional information necessary to finalize those fair values. Therefore, provisional measurements of fair value reflected are subject to change. Magic expects to finalize the tangible and intangible assets valuation and complete the acquisition accounting as soon as practicable but no later than the measurement period.

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**NOTE 4:- BUSINESS COMBINATION, SIGNIFICANT TRANSACTION AND SALE OF BUSINESS (Cont.)**

iv.

Matrix

a. Acquisition of SeeV Solutions Ltd.

During January 2015, Matrix acquired a 75% interest in SeeV Solutions Ltd. (“SeeV”) from its former shareholders for NIS 4,875 (approximately \$1,232). In addition, the purchaser and the seller hold mutual Call and Put options respectively for the remaining 25% interest in the company valued at NIS 1,713 (approximately \$433). SeeV engages in permanent placement of employees in start-ups and high-tech companies.

The following table summarizes the estimated fair values of the assets acquired and liabilities at the date of acquisition:

Net Assets	\$340
Redeemable non-controlling interests	(433 )
Intangible assets	270
Deferred tax liabilities	(72 )
Goodwill	1,127
Total assets acquired	\$ 1,232

As of December 31, 2017, SeeV redeemable non-controlling interest amount to \$177.

b. Acquisition of Tiltan Systems Engineering Ltd.

On April 1, 2015, Matrix acquired 64% interest in Tiltan Systems Engineering Ltd. (“Tiltan”) from its other shareholders (prior to the acquisition Matrix held a 36% interest in Tiltan share capital) for an amount of NIS 2,600 (approximately \$654). Following the acquisition Matrix holds the entire share capital of Tiltan and consequently recognized a loss of NIS 565 (approximately \$142) resulting from the fair value measurement of its investment in Tiltan. The excess of the purchase price over the estimated fair value of the assets acquired and liabilities assumed in a total of approximately NIS 4,900 (approximately \$1,233), NIS 640 (approximately \$161) was allocated to deferred taxes, and the remaining balance was allocated to goodwill.

c. Acquisition of Hydus Inc

On April 1, 2015 Xtivia Inc. (a wholly owned subsidiary of Matrix) completed the acquisition of the entire share capital of Hydus Inc. for a total consideration of \$2,505 (net of acquired cash). Hydus Inc. is a U.S based consulting firm specializing in software services in the field of Enterprise Information Management (EIM). In addition, the sellers may be eligible for future consideration, valued at \$1,441 on the acquisition date, subject to obtaining accumulated operating income targets during three years (not exceeding Hydus Inc. operating income).

Acquisition related costs were immaterial. The acquisition was accounted for by the purchase method.

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**NOTE 4:- BUSINESS COMBINATION, SIGNIFICANT TRANSACTION AND SALE OF BUSINESS (Cont.)**

The following table summarizes the estimated fair values of the assets acquired and liabilities at the date of acquisition:

Net Assets	\$583
Intangible assets	580
Deferred tax liabilities	(203 )
Goodwill	2,986
 Total assets acquired	 \$3,946

d. Acquisition of Ono Apps Ltd.

On May 7, 2015, Matrix completed the acquisition of the entire share capital of Ono Apps Ltd., an Israeli based service provider specializing in mobile applications development services, for a total consideration of NIS 4,584 (approximately \$1,186). In addition, the sellers may be eligible for future consideration, valued at \$316 as of the acquisition date, subject to obtaining accumulated operating income targets during three years commencing on January 1, 2016 and not exceeding NIS 5,000 (approximately \$1,300). Acquisition related costs were immaterial. The acquisition was accounted for by the purchase method.

The following table summarizes the estimated fair values of the assets acquired and liabilities at the date of acquisition:

Net Assets	\$86
Intangible assets	420
Deferred tax liabilities	(111 )



Goodwill	1,107
Total assets acquired	\$1,502

e. Acquisition of Programa Logistics Systems Ltd.

On March 30, 2016, Matrix acquired a 60% interest in Programa Logistics Systems Ltd. (“Programa”), for a total consideration of NIS 7,295 (approximately \$1,937). In addition, the sellers may be eligible for future consideration valued, on the acquisition date, at NIS 1,144 (\$304) which is contingent upon the acquired business meeting certain operational targets in the years 2016-2018. Programa, an Israeli company, is a provider of advisory services and design and development of solutions in supply chain, production and logistics. Matrix and the seller hold mutual Call and Put options respectively for the remaining 40% interest in Programa. As a result of the Put option, Matrix recorded redeemable non-controlling interest of \$2,471 on the acquisition date. Acquisition related costs were immaterial. The acquisition was accounted for by the purchase method.

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**NOTE 4:- BUSINESS COMBINATION, SIGNIFICANT TRANSACTION AND SALE OF BUSINESS (Cont.)**

The following table summarizes the estimated fair values of the assets acquired and liabilities at the date of acquisition:

Net Assets	\$267
Redeemable non-controlling interests	(2,471)
Intangible assets	1,216
Goodwill	3,229
Total assets acquired	\$2,241

As of December 31, 2017, Programa's redeemable non-controlling interest amount to \$2,302.

f. Acquisition of Network Infrastructure Technologies Inc.

On October 4, 2016, Exzac Inc. a wholly owned subsidiary of Matrix, completed the acquisition of a 60% interest in Network Infrastructure Technologies Inc. ("NIT") for a cash consideration of \$6,750. NIT, a U.S based company, mainly provides IT help desk services to the Healthcare and Finance sectors for managing their information systems. Matrix and the seller hold mutual Call and Put options respectively for the remaining 40% interest in NIT. As a result of the Put option, Matrix recorded redeemable non-controlling interest of \$3,968 on the acquisition date. Acquisition related costs were immaterial. The acquisition was accounted for by the purchase method.

In 2017, Matrix's management made adjustments to the provisional amounts that had been recognized in the temporary PPA performed for the Company on the acquisition date, including the acquisition cost and its attribution to the various items.

The financial statements as of December 31, 2016 and for the year then ended were restated in order to retroactively reflect the effect of these adjustments.

The effect of the adjustments in the consolidated statements of financial position:

	As previously reported	The change	As presented in these financial statements
As of December 31, 2016:			
Goodwill	497,784	(2,422 )	495,362
Intangible assets, net	129,821	(1,375 )	128,446
Long term liabilities in respect of business combinations	(9,611 )	742	(8,869 )
Deferred Tax Provision	(30,939 )	(90 )	(31,029 )
Long-term Redeemable non-controlling interests	(43,556 )	3,145	(40,411 )

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The following table summarizes the estimated fair values of the assets acquired and liabilities at the date of acquisition:

Net Assets	\$391
Redeemable non-controlling interests	(3,968)
Intangible assets	2,138
Deferred tax liabilities	(855 )
Goodwill	9,044
 Total assets acquired	 \$6,750

As of December 31, 2017, NIT's redeemable non-controlling interest amount to \$3,931.

g. Acquisition of Second to none solutions Inc.

On November 8, 2016, Xtivia Technologies Inc., a wholly owned subsidiary of Matrix, completed the acquisition of a 55% interest in Second to none solutions Inc. ("Stons") for a consideration of \$287 paid in cash. Stons is a certified distributor of IBM products to U.S federal and enterprise customers. Matrix and the seller hold mutual Call and Put options respectively for the remaining 45% interest in Stons. As a result of the Put option, Matrix recorded redeemable non-controlling interest of \$2,184 on the acquisition date. In addition, the sellers may be eligible for future consideration valued, on the acquisition date, at \$514 which is contingent upon the acquired business meeting certain operational targets in the years 2017-2019. Acquisition related costs were immaterial. The acquisition was accounted for by the purchase method.

The following table summarizes the estimated fair values of the assets acquired and liabilities at the date of acquisition:

Intangible assets	\$909
Redeemable non-controlling interests	(2,184)
Deferred tax liabilities	(311 )
Goodwill	2,387
 Total assets acquired	 \$801

As of December 31, 2017, Stons' redeemable non-controlling interest amount to \$2,567.

#### h. Acquisition of Aviv Management Engineering Systems Ltd.

On December 27, 2016, Matrix completed the acquisition of an 85% interest of Aviv Management Engineering Systems Ltd. ("Aviv") for a consideration of NIS 19,699 in cash (approximately \$5,123). In addition, the sellers may be eligible for future consideration valued, on the acquisition date, at NIS 1,200 (approximately \$313) which is contingent upon the acquired business meeting certain operational targets in the years 2017-2019. Aviv provides management consulting and multidisciplinary engineering consulting focusing in four areas of expertise: environmental planning, project management, urban and physical planning and management consulting. Matrix and the seller hold mutual Call and Put options respectively for the remaining 15% interest in Aviv. As a result of the Put option, Matrix recorded redeemable non-controlling interest of NIS 5,714 (approximately \$1,486) on the acquisition date. Acquisition related costs were immaterial. The acquisition was accounted for by the purchase method.

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**U.S. dollars in thousands, except share and per share data****NOTE 4:- BUSINESS COMBINATION, SIGNIFICANT TRANSACTION AND SALE OF BUSINESS (Cont.)**

The following table summarizes the estimated fair values of the assets acquired and liabilities at the date of acquisition:

Net Assets	\$(1,338)
Redeemable non-controlling interests	(1,486)
Intangible assets	2,051
Deferred tax liabilities	(472 )
Goodwill	6,681
 Total assets acquired	 \$5,436

As of December 31, 2017, Aviv's redeemable non-controlling interest amount to \$1,861.

**NOTE 5:- MARKETABLE SECURITIES**

The Group invests in marketable debt and equity securities, which were classified at fair value through profit or loss and as available-for-sale securities. The following is a summary of marketable securities:

a. Composition:

	December 31,	
	2016	2017
<u>Short-term:</u>		
Fair value through profit or loss <sup>(1)</sup>	6,790	1,209

Available-for-sale	30,726	12,929
Total short-term securities	\$37,516	\$14,138

Long-term:

Available-for-sale	17,228	-
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Total long-term securities	\$17,228	\$-
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(1) The Group recognized trading gains (losses) in amounts of \$114, \$136 and (\$146) during the years ended December 31, 2015, 2016 and 2017, respectively.

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b. The following is a summary of marketable securities which are classified as available-for-sale:

	December 31, 2016				2017			
	Amortized cost	Unrealized losses	Unrealized Gains	Market value	Amortized cost	Unrealized losses	Unrealized gains	Market Value
<u>Available-for-sale:</u>								
Government bonds	\$3,167	\$ (3 )	\$ -	\$3,164	\$-	\$ -	\$ -	\$-
Commercial bonds	44,821	(261 )	-	44,560	12,987	(58 )	-	12,929
Equity securities	118	-	112	230	-	-	-	-
<u>Total</u> available-for-sale marketable securities	\$48,106	\$ (264 )	\$ 112	\$47,954	\$12,987	\$ (58 )	\$ -	\$12,929

In 2015, 2016 and 2017 the Group received proceeds from sales and maturity of available-for-sale marketable securities of \$2,136, \$16,541 and \$39,594 and recorded related net gains (losses) of \$300, (\$16) and \$94 in financial income (expenses), respectively.

The amortized costs of available-for-sale debt securities at December 31, 2017, by contractual maturities, are shown below:

Amortized	Unrealized gains (losses)	Market
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	cost	Gain	Losses	value
Due within one year	\$ 4,045	\$ -	\$ (5 )	\$4,040
Due after one year through three years	\$ 8,942	\$ -	\$ (53 )	\$8,889
	\$ 12,987	\$ -	\$ (58 )	\$12,929

The following is the change in the gross other comprehensive income from available-for-sale securities during 2016 and 2017:

	Other comprehensive income
Other comprehensive income from available-for-sale securities as of January 1, 2016	\$ 121
Unrealized gain from available-for-sale securities	30
Realized loss (gain) reclassified into profit or loss	16
Other comprehensive income from available-for-sale securities as of December 31, 2016	167
Unrealized gain from available-for-sale securities	188
Realized loss (gain) reclassified into profit or loss	(94 )
Other comprehensive income from available-for-sale securities as of December 31, 2017	\$ 261

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	December 31,	
	2016	2017
Government departments	\$15,097	\$16,494
Employees	365	619
Prepaid expenses and advances to suppliers	22,634	26,597
Restricted deposits	2,405	22
Related Parties	1,865	273
Other	3,312	910
Total	\$45,678	\$44,915

## Note 7:- Fair value measurement

In determining fair value, the Company utilizes valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs to the extent possible and considers counterparty credit risk in its assessment of fair value.

The Company's financial assets and liabilities measured at fair value on a recurring basis, including accrued interest components, consisted of the following types of instruments as of December 31, 2016 and 2017:

	Fair value measurements			
	December 31, 2017			
	Level 1	Level 2	Level 3	Total
Assets:				
Government and corporate debentures	\$-	\$12,929	\$-	\$12,929
Convertible debentures	-	1,209	-	1,209

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Dividend preference derivative in TSG <sup>(1)</sup>	-	-	2,400	2,400
Total financial assets	\$-	\$14,138	\$2,400	\$16,538
Liabilities:				
Redeemable non-controlling interests <sup>(2)</sup>	\$-	\$-	\$52,876	\$52,876
Contingent consideration <sup>(2)</sup>	-	-	6,769	6,769
Total financial liabilities	\$-	\$-	\$59,645	\$59,645

Fair value measurements

December 31, 2016

	Level 1	Level 2	Level 3	Total
Assets:				
Equity securities	\$1,001	\$-	\$-	\$1,001
Government and corporate debentures	6,019	47,724	-	53,743
Dividend preference derivative in TSG <sup>(1)</sup>	-	-	2,140	2,140
Total financial assets	\$7,020	\$47,724	\$2,140	\$56,884
Liabilities:				
Redeemable non-controlling interests <sup>(2)</sup>	\$-	\$-	\$46,484*)	\$46,484
Contingent consideration <sup>(2)</sup>	-	-	10,218*)	10,218
Total financial liabilities	\$-	\$-	\$56,702	\$56,702

(1) The fair value of dividend preference derivative in TSG was estimated using the Monte-Carlo simulation technique.

(2) The fair value of redeemable non-controlling interests and contingent consideration was determined based on the present value of the future expected cash flow.

\*) Adjustment to comparative data

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Note 8:- Investments in companies accounted for at equity METHOD

a. The following is a summary of the Group's investments in companies accounted for at equity:

	December 31,	
	2016	2017
Affiliated company	38	55
Joint venture – TSG (see Note 4(i)(a))	24,022	25,260
	24,060	25,315

The Group holds a 50% share in TSG, a joint venture engaged in the fields of command and control systems, b. intelligence, homeland security and cyber security. The Group's interest in TSG is accounted for using the equity method in the consolidated financial statements.

The following is the composition of the Group's investment in TSG:

	December 31,	
	2016	2017
Shares	16,353	17,591
Capital notes	7,669	7,669
	24,022	25,260
Dividend preference derivative in TSG <sup>(1)</sup>	2,140	2,400
Goodwill	9,836	9,836

- (1) Dividend preference derivative in TSG is included in Company's long term prepaid expenses and other receivables and is accounted for at fair value through to profit or loss.

c. The following table summarizes activity related to the Group's investment in TSG:

January 1, 2016	\$-
Acquisition of shares in joint venture	16,004
Investment in Capital notes of joint venture	7,669
Company's share of profit of joint venture	349
December 31, 2016	\$24,022
Company's share of profit of joint venture	1,134
Company's share of other comprehensive income of joint venture	104
December 31, 2017	\$25,260

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Note 8:- Investments in companies accounted for at equity (Cont.)

d. Summarized financial information of TSG:

(i) Summarized statement of financial position of TSG :

	December 31,	
	2016	2017
Current assets	24,396	34,137
Noncurrent assets <sup>(1)</sup>	467	1,746
Current liabilities	(16,969)	(20,311)
Noncurrent liabilities	(1,895 )	(4,426 )
Equity	5,999	11,146
Group's share in equity	50	% 50
	3,000	5,573
Excess cost of intangible assets net of deferred tax	11,186	9,851
Goodwill	9,836	9,836
Group's carrying amount of the investment	24,022	25,260

(1) Not including balance of goodwill in an amount of \$19,006 as of December 31, 2016 and 2017.

(ii) Summarized statement of profit or loss of TSG:

	Year ended	
	December 31,	
	2016 <sup>(1)</sup>	2017
Revenues	38,648	66,816
Net income	2,744	4,938
Other comprehensive income	-	208
Total comprehensive income	2,744	5,146

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Group's share	50	%	50	%
	1,372		2,573	
Amortization of excess cost of intangible assets net of tax	(1,023 )		(1,335 )	
	349		1,238	
Group's share of other comprehensive income	-		104	
Group's share of profit	349		1,134	

(1)From May 1, 2016.

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## NOTE 9:- PROPERTY, PLANTS AND EQUIPMENT, NET

Composition:

	December 31,	
	2016	2017
Cost:		
Computers, equipment and software	\$60,074	\$80,888
Motor vehicles	1,552	1,659
Buildings	1,833	1,833
Leasehold improvements	20,991	22,080
	84,450	106,460
Accumulated depreciation:		
Computers, equipment and software	\$46,659	\$64,604
Motor vehicles	531	636
Buildings	23	70
Leasehold improvements	11,107	11,343
	58,320	76,653
Depreciated cost	\$26,130	\$29,807

In December 2016, Matrix sold its full rights in a land property for a total consideration of approximately \$4,473. The group recognized a capital gain from the aforementioned sale in an amount of approximately \$3,147. Simultaneously to the sale, Matrix had leased the land for its operations. The lease is treated as an operating lease in accordance with IAS 17.

Depreciation expenses totaled \$7,092, \$7,880, and \$9,598 for the years ended December 31, 2015, 2016 and 2017, respectively.



## NotE 10:- Intangible Assets, Net

a. Intangible assets, net, are comprised of the following as of the below dates:

	December 31,	
	2016	2017
Original amounts:		
Capitalized Software costs	\$ 175,456	\$ 196,523
Customer relationship	110,151 *)	133,220
Acquired technology	20,455	75,672
Backlog and non-compete agreement	6,063	6,063
Other intangibles	4,066	4,510
Patent	1,248	1,385
	317,439*)	417,373
Accumulated amortization:		
Capitalized Software costs	122,293	142,019
Customer relationship	49,538	65,705
Acquired technology	7,871	35,466
Backlog and non-compete agreement	5,611	5,837
Other intangibles	3,378	3,890
Patent	302	473
	188,993	253,390
Total	\$ 128,446	\$ 163,983

\*) Adjustment to comparative data (See Note 4(iv)(f)).

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Note 10:- Intangible Assets, Net (Cont.)

b. Amortized expenses totaled \$23,346, \$24,490 and \$34,048 for the years ended December 31, 2015, 2016 and 2017, respectively.

Note 11:- Goodwill

The changes in the carrying amount of goodwill for the years ended December 31, 2016 and 2017 were as follows:

Balance as of January 1, 2016	\$441,021
Acquisition of subsidiaries	51,049 *)
Classifications	389
Foreign currency translation adjustments	2,903 *)
Balance as of December 31, 2016	495,362
Acquisition of subsidiaries	94,851
Classifications	1,105
Foreign currency translation adjustments	25,954
Balance as of December 31, 2017	\$617,272

\*) Adjustment to comparative data

The Company performed annual impairment tests during the fourth quarter of 2017 and did not identify any impairment losses (See Note 2(21)).

## Note 12:- short term Liabilities to banks and others

	December 31, 2017		December 31, 2016	December 31, 2017
	Interest rate %	Linkage basis		
Bank credit	2-3.1	NIS (Unlinked)	\$-	\$947
Bank credit	US Prime -0.2	USD (Unlinked)	996	2,125
Short-term bank loans	1.6-2.5	NIS (Unlinked)	42,336	22,910
Current maturities of long-term loans from banks and other financial institutions <sup>(1)</sup>	2.6-5.81	NIS (Unlinked)	40,054	42,839
Current maturities of long-term loans from banks <sup>(1)</sup>	Libor +2.2 - 5	USD (Unlinked)	-	862
Accumulated interest on long-term loans from other financial institutions <sup>(1)</sup>	2.6-5.5	NIS (Unlinked)	1,338	1,136
Other			36	-
Total			\$84,760	\$70,819

<sup>(1)</sup> See Note 14

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Note 13:- other accounts payable

	December 31,	
	2016	2017
Government institutions	\$22,777	\$29,816
Accrued royalties to the OCS (See Note 19f)	495	276
Accrued expenses and other current liabilities	18,000	23,053
Total	\$41,272	\$53,145

Note 14:- Long term Liabilities to Banks and Others

a. Composition:

December 31, 2017	<b>Linkage Basis</b>	Long-term liabilities	Current maturities	Total long-term liabilities net of current maturities	Total long-term liabilities net of current maturities December 31, 2016
Interest rate		December 31, 2017			
%					
2.5-5.81	NIS (Unlinked)	\$ 175,592	42,839	132,753	\$ 115,529
2-5	USD (Unlinked)	3,725	862	2,863	-
		\$ 179,317	43,701	135,616	\$ 115,529

i) In November 2016, Magic obtained a loan in the amount of \$31,356 linked to the New Israel shekel from an Israeli financial institution. The principal amount is payable in seven equal annual installments with the final payment due on November 2, 2023 and bears a fixed interest rate of 2.60% per annum, payable in two semi-annual payments.

Under the terms of the loan with the Israeli financial institution, Magic has undertaken to maintain certain financial covenants (See note 19c(iv)).

On February 28, 2017, Sapiens (via its wholly-owned subsidiary, Sapiens Americas Corporation) entered into a secured credit agreement, with HSBC Bank USA, National Association, for the acquisition of StoneRiver. Pursuant to the credit agreement, Sapiens borrowed \$40 million for a five-year term, at the rate of LIBOR plus 1.85%. Upon ii) Sapiens' consummation of a public offering and private placement of Sapiens Series B Debentures in September 2017, Sapiens utilized the proceeds received from the sale of the debentures for repayment of the entire outstanding term loan amount (including accrued interest) under the credit agreement with HSBC.

b. Maturity dates:

	December 31,	
	2016	2017
First year (current maturities)	\$40,054	\$43,701
Second year	33,803	53,645
Third year	37,836	34,270
Fourth year	21,663	19,066
Fifth year and thereafter	22,227	28,635
Total	\$155,583	\$179,317

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Note 14:- Long term Liabilities to Banks and Others (Cont.)

c.For details of liens, guarantees and credit facilities, see Note 19.

**NOTE 15:- DEBENTURES**

The Group's liabilities under debentures are attributable to debentures issued by Formula in September 2015, as well as debentures issued by Sapiens in September 2017. Composition of the Groups' debentures is as follows:

Formula's debentures:

	Effective interest rate		Currency	December 31,	
				2016	2017
Short-term Series A Secured Debentures <sup>(1)</sup>	3.07	%	NIS	\$3,274	\$4,044
Long-term Series A Secured Debentures	3.07	%	NIS	23,077	21,914
Series B Convertible Debentures <sup>(1)</sup>	3.65	%	NIS/USD	32,364	33,544
				\$55,441	\$55,458

Sapiens' debentures:

	Effective interest rate		Currency	December 31,	
				2016	2017
Short-term Series B Debentures <sup>(1)</sup>	3.69	%	NIS/USD	\$ -	\$782

Long-term Series B Debentures      3.69    %    NIS/USD    \$-      \$78,281

(1) Including accrued interest.

Following is the change in the carrying amount of the Group's Debentures during 2015, 2016 and 2017:

Carrying amount as of January 1, 2015	\$-
Issuance of Formula's Series A and Series B Debentures, net of discount and issuance costs	58,394
Classification of conversion component to equity	(1,248 )
Accrued interest	476
Discount and issuance costs amortization	77
Foreign currency translation adjustments	(358 )
Carrying amount as of January 1, 2016	\$57,341
Accrued interest	1,653
Discount and issuance costs amortization	296
Interest payments	(964 )
Foreign currency translation adjustments	389
Carrying amount as of January 1, 2017	\$58,715
Issuance of Sapiens' Series B Debentures, net of discount and issuance costs	78,229
Accrued interest	2,441
Discount and issuance costs amortization	391
Interest payments	(408 )
Redemption	(3,656 )
Foreign currency translation adjustments	2,853
Balance as of December 31, 2017	\$38,565

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**U.S. dollars in thousands, except share and per share data**NOTE 15:- **DEBENTURES** (Cont.)

As of December 31, 2017, the aggregate principal annual payments of the debentures are as follows:

	Repayment amount
2018	3,687
2019	45,458
2020	13,585
2021	13,585
2022 and thereafter	60,551
Total	136,866

**Formula's Series A Secured Debentures and Series B Convertible Debentures**

On September 16, 2015, Formula concluded a public offering in Israel on the Tel-Aviv Stock Exchange (the "TASE") of (i) NIS 102.3 million par value of Series A Secured Debentures (the "Formula's Series A Secured Debentures") and of (ii) NIS 125 million par value of Series B Convertible Debentures that are linked to the US Dollar based on the exchange rate on September 8, 2015 of 3.922 (the "Formula's Series B Convertible Debentures"). Formula's Debentures were offered and sold pursuant to a shelf prospectus filed with the Israeli Securities Authority (the "ISA") and TASE on August 6, 2015, amended thereafter on September 3, 2015 and which term was extended in July 2017 until August 6, 2018. The public offering of the Debentures was made only in Israel and not to U.S. persons (as defined in Rule 902(k) under the Securities Act of 1933, as amended (the "Securities Act")), in an overseas directed offering (as defined in Rule 903(b)(i)(ii) under the Securities Act), and was exempt from registration under the Securities Act pursuant to the exemption provided by Regulation S thereunder. The sale of the debentures was not registered under the Securities Act, and the debentures may not be offered or sold in the United States and/or to U.S. persons without registration under the Securities Act or an applicable exemption from the registration requirements of the Securities Act.



(i) Formula's Series A Secured Debentures (NIS102.3 million par value)

The Series A Secured Debentures were issued at a purchase price equal to 100% of their par value and bear fixed annual interest at a rate of 2.8% (which may vary based on the credit rating of the debentures), payable semi-annually. The proceeds of the offering, before early commitment commission valued at \$129 with respect to the units for which the qualified investors have committed to subscribe, and issuance costs of \$190, amounted to NIS 102,260 (approximately \$26,295). The principal of the Series A Secured Debentures, are nominated in NIS (not linked to any currency or index) and will be paid to holders in eight equal annual installments commencing on July 2, 2017. Formula may redeem the Series A Secured Debentures or any part thereof at its discretion after 60 days from their issuance date subject to certain conditions. In accordance with the terms of the indenture related to Series A Secured debentures the collateral will consist of certain amount certain amount of shares of the Company's subsidiaries: Matrix, Magic and Sapiens (See Note 19a).

On January 31, 2018, the Company consummated a private placement to qualified investors in Israel, of an additional, aggregate NIS 150 million par value of Series A Secured Debentures at a price of NIS 1,034.7 for each NIS 1,000 principal amount. The aggregate gross proceeds totaled NIS 155.2 million (approximately \$45.6 million), excluding issuance costs of \$0.2 million. As a result of the private placement, the total outstanding principal amount of the Series A Secured Debentures increased to approximately NIS 239.5 million (approximately \$69.1 million). The terms of the Series A Secured Debentures sold in the private placement are identical in all respects to those of the Series A Secured Debentures sold in Formula's September 2015 public offering.

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NOTE 15:- **DEBENTURES** (Cont.)

(ii) Formula's Series B Convertible Debentures (NIS125 million par value)

Formula's Series B Convertible Debentures were issued at a purchase price equal to 102% of their par value and bear fixed annual interest at a rate of 2.74% (which may vary based on the credit rating of the debentures), and is payable in one installment of principle and interest upon maturity of the debentures on March 26, 2019 (at which time the accrued interest will constitute 10% of the principal amount of Formula's Series B Convertible Debentures, in the aggregate). The proceeds of the offering, before early commitment commission valued at \$131 with respect to the units for which the qualified investors committed to subscribe, and issuance costs of \$236 amounted to NIS 127,500 (approximately \$32,785). The principal of the Bonds is subject to adjustment based on changes in the exchange rate between the NIS and the dollar relative to the exchange rate on September 8, 2015 (3.922), and will be repaid on March 26, 2019. Formula may not redeem the Series B Convertible Debentures or any part thereof at its discretion.

Formula's Series B Convertible Debentures are convertible, at the election of each holder, into Formula's ordinary shares, from the date of issuance and until March 10, 2019, at conversion price of, as of the date of the issuance, NIS 157 par value of Convertible Debentures per one share, adjusted for events that the Company effects a share split or reverse share split, a rights offering or a distribution of bonus shares or a cash dividend. As of December 31, 2017, the adjusted conversion price to one share is NIS 150.27542 par value following cash dividend distributions.

In compliance with IAS 32, the Group identified and separated an equity component contained in Formula's Series B Convertible Debentures, valued at \$1,248. Debt discount and issuance costs (approximately \$367) were allocated to the Formula's Series B Convertible Debentures discount and are amortized as financial expenses over the term of these debentures due in 2019. Formula may not redeem the Series B Convertible Debentures or any part thereof at its discretion.

In accordance with the indenture for the Series A Secured Debentures and Series B Convertible Debentures, Formula has undertaken to maintain a number of conditions and limitations on the manner in which it operates its business,

including limitations on its ability to undergo a change of control, distribute dividends, incur a floating charge on the Company's assets, or undergo an asset sale or other change that results in a fundamental change in the Company's operations and to meet certain financial covenants (See Notes 19a and 19c(ii)).

### **Sapiens' Series B Debentures**

In September 2017, Sapiens issued its unsecured Series B Debentures in the aggregate principal amount of NIS 280 million (approximately \$79.2 million), linked to US dollars, payable in eight equal annual payments on January 1 of each of the years 2019 through 2026. The outstanding principal amount of Sapiens' Series B Debentures will bear a fixed interest rate of 3.37% per annum, payable on January 1 and July 1 of each of the years 2018 through 2025, with one final interest payment on January 1, 2026. Debt discount and issuance costs were approximately \$956, allocated to Sapiens' Series B Debentures discount and are amortized as financial expenses over the term of the Series B Debentures due in 2026.

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**NOTE 15:- DEBENTURES (Cont.)**

Sapiens' Series B Debentures are listed for trading on the TASE. Sapiens' Series B Debentures are unsecured and non-convertible. Sapiens' Series B Debentures interest may be increased in the event that the debentures' rating is downgraded below a certain level.

In accordance with the indenture for the Sapiens Series b Debentures, Sapiens has undertaken to maintain a number of conditions and limitations on the manner in which it operates its business, including limitations on its ability to undergo a change of control, distribute dividends, incur a floating charge on the Company's assets, or undergo an asset sale or other change that results in a fundamental change in the Company's operations and to meet certain financial covenants (See Note 19c(iii)).

**Note 16:- RELATED PARTIES TRANSACTIONS**

**(i) Acquisition of Insseco:**

On August 18, 2015, Sapiens completed the acquisition from Asseco, the parent company of Formula, of all issued and outstanding shares of Insseco. Please see Note 2(26) and Note 4(ii)(a) for further information concerning this acquisition. Under the share purchase agreement for that acquisition, Asseco committed to assign all customer contracts to Insseco that relate to the intellectual property that Sapiens acquired as part of the acquisition. In the event that Asseco cannot obtain the consent of any customer to the assignment of its contract to Insseco, Asseco will hold that customer's contract in trust for the benefit of Insseco. Under that arrangement, in 2015 and 2016, Insseco invoiced Asseco in a back-to-back manner for all invoices issued by Asseco on Insseco's behalf to customers under those contracts that were not yet assigned by Asseco to Insseco. During the years ended December 31, 2015, 2016 and 2017, Asseco provided back office and professional services and fixed assets to Insseco in an amount totaling approximately \$1,700, \$1,900 and \$1,600, respectively.

(ii) Services Obtained from Asseco

During 2017, Asseco provided back-office services, professional services and fixed assets to Sapiens wholly-owned subsidiary, Sapiens Poland, in an amount totaling approximately \$1.6 million.

(iii) Services provided to Asseco

During 2017, Sapiens Poland performed services as a sub-contractor on behalf of Asseco for clients of Asseco in a total amount of approximately \$8.25 million. For historic reasons, Asseco issues invoices to those clients and then Sapiens in turn invoices Asseco on a back-to-back basis.

During 2017, Matrix performed services as a sub-contractor on behalf of Asseco Denmark A.S., a subsidiary of Asseco, in an amount totaling approximately €0.5 million (\$564).

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Note 16:- RELATED PARTIES TRANSACTIONS (Cont.)

(iv) Fees Paid for Board Services in Affiliates

Sapiens paid the Company approximately \$28.6 in respect of its share of the director's fees of Mr. Guy Bernstein, its Chairman and the Company's chief executive office, for the year ended December 31, 2017.

Matrix paid the Company approximately \$30.0 in respect of its share of the director's fees of Mr. Guy Bernstein, its Chairman and the Company's chief executive office, for the year ended December 31, 2017.

(v) Other Transactions

From time to time, in the Group's ordinary course of business, the Group engages in non-material transactions between its subsidiaries and affiliates where the amount involved in, and the nature of, the transactions are not material to any party to the transaction. The Group believes that these transactions are made on an arms' length basis upon terms and conditions no less favorable to the Group, its subsidiaries and affiliates, as it could obtain from unaffiliated third parties. If Group engages with its subsidiaries and affiliates in transactions which are not in the ordinary course of business, the Group receives the approvals required under the Companies Law. These approvals include audit committee approval, board approval and, in certain circumstances, shareholder approval.

As of December 31, 2016 and 2017, the Group had trade payable balances due to its related parties in amount of approximately \$0 and \$150, respectively. In addition, as of December 31, 2016 and 2017, the Group had trade receivables balances due from its related parties in amount of approximately \$1,865 and \$1,530, respectively.

Note 17:- Employee Option Plans

In March 2011, Formula's shareholders approved the adoption of Formula's 2011 Employee and Officer Share Incentive Plan (the "2011 plan"). Pursuant to the 2011 plan, Formula may grant from time to time to Formula's and its investees' employees and officers (which are not Formula's controlling shareholders) ordinary shares, restricted shares or options to purchase up to 545,000 ordinary shares of Formula. The 2011 plan is administered by Formula's board of directors. The 2011 plan provides that share based compensation may be granted, from time to time, to such grantees to be determined by the board, at an exercise price and under such terms to be determined at its sole and absolute discretion. Share based compensation may be granted under the 2011 plan through March 2021. In 2012, Formula increased the amount of ordinary shares reserved for issuance under the 2011 plan by 1,200,000 options.

In March 2011, concurrently with the amendment and extension of Formula's chief executive officer's service agreement, Formula approved a grant of options to its chief executive officer, exercisable for an additional 543,840 ordinary shares. The options vest in equal quarterly installments, over a four-year period that commenced in December 31, 2011 and concluded in December 31, 2015. The exercise price of the options was NIS 0.01 per share. In May 2011, the chief executive officer exercised all of these options for redeemable restricted shares, for which the Company's redemption right was to lapse in accordance with the remaining vesting schedule for the unvested options from which they arose. Total fair value of the grant was calculated based on the Formula share price on the grant date and totaled \$9,055 (\$16.65 per share).

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Note 17:- Employee Option Plans (Cont.)

In December 2011, at which time Formula was negotiating an amendment and an extension of its chief executive officer's service agreement, it redeemed all of the above-described 543,840 shares for no consideration.

In March 2012, concurrently with the amendment and extension of its chief executive officer's service agreement, the board of directors of Formula awarded him with a new share option incentive plan, following the redemption of the 543,840 redeemable ordinary shares, which were granted to him in March 2011 and which were not yet vested in their redemption date. Under the 2011 plan, the chief executive officer of Formula was granted with options exercisable to 1,122,782 ordinary shares of Formula (the "New grant"), as long as he continue to serve as (i) a director of Formula and/or (ii) a director of each of the directly held subsidiaries of Formula; provided that if he fails to meet the foregoing requirement (A) due to the request of the board of directors of either Formula or any of its directly held subsidiaries (other than a request which is based on actions or omissions by the chief executive officer that would constitute "cause" under his service agreement with Formula), (B) because the chief executive officer is prohibited under the governing law or charter documents of the relevant company or the stock exchange rules and regulations applicable to such company from being a director of such company (other than due to his actions or omissions) or (C) notwithstanding the chief executive officer's willingness to be so appointed (but provided that neither (A) nor (B) applies); then, in each of (A), (B) and (C), the chief executive officer will be deemed to have complied with clauses (i) or (ii) above. The options vest, i.e., Formula's redemption right with respect to the options and the underlying ordinary shares issuable upon exercise lapses, in equal quarterly installments over an eight-year period that commenced in March 2012 and concludes on December 31, 2019. Notwithstanding the foregoing, if a change of control of the Company occurs, then all unvested options and/or restricted shares will immediately become vested. The exercise price of the options is NIS 0.01 per share. The New grant is accounted for as a modification to the March 2011 grant to the chief executive officer. Total fair value of the grant was calculated based on the share price on the grant date and totaled \$18,347 (\$16.34 per share). In accordance with the terms of the options grant, the shares issuable upon exercise of the options will be deposited with a trustee and Formula's chief executive officer will not be permitted to vote or dispose of them until the shares are released from the trust. In June 2013 all options were exercised into shares however they have been deposited with a trustee and Formula's chief executive officer is not permitted to vote or dispose of them until the shares are released from the trust. All shares participate in dividends and have the right to vote, however for so long as the shares are held by the trustee (even if they have vested) the voting rights may only be exercised by the trustee. In accordance with the guidelines of Formula incentive plan for so long as the shares underlying any grant under the plan are being held by the trustee they will be voted by the trustee in the same proportion as the results of the shareholder meeting. Only those shares for which the vesting period has expired may be collected from the trustee.



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Note 17:- Employee Option Plans (Cont.)

On August 3, 2017 and on August 22, 2017 Asseco sold 2,356,605 and 589,151, respectively, of Formula ordinary shares, in aggregate representing 20% of Formula outstanding share capital to eleven (11) Israeli financial institutions and to the Company's chief executive officer, respectively, in privately negotiated sales transactions. The sales resulted with Asseco's share interest in Formula to decrease from 46.3% to 26.3% and to its loss of control of the Company. In accordance with Mr. Bernstein share based award plan, such loss of control in the Company resulted in the immediate acceleration of all of his unvested shares, which amounted to 350,869 shares as of such date. The total compensation expense that the Company recorded in its statement of profit or loss for the year ended December 31, 2017 in respect of Mr. Bernstein's March 2012 options grant (constituting his equity compensation for all of 2017) was \$928.

In November 2014, Formula board of directors awarded its chief financial officer with 10,000 restricted shares under the 2011 plan (the "restricted shares"). These restricted shares vest on a quarterly basis over a four-year period, commencing on November 13, 2014 and concludes in November 13, 2018, provided that during such time the chief financial officer will continue to serve as (i) an officer of the Company and/or (ii) an officer in one of the directly held affiliates, except that if he fail to meet the service condition due to the request of the board of directors of either Formula or any of its directly held affiliates (other than a termination of his provision of services which is based on actions or omissions by him that will constitute "cause" under his grant agreement with Formula); then, the chief financial officer will be deemed to have complied with clauses (i) or (ii) above. Notwithstanding the foregoing, if a change of control of the Company occurs, then all unvested restricted shares will immediately become vested. Total fair value of the grant was calculated based on the Formula share price on the grant date and equaled to \$239 (\$23.9 per share).

In accordance with the Company's chief financial officer share based award plan, Asseco's loss of control in the Company resulted in the immediate acceleration of all of his unvested shares under the grant of November 2014, which amounted to 3,125 shares.

In August 2017, Formula board of directors awarded its chief financial officer with additional 10,000 restricted shares under the 2011 plan (the "new restricted shares"). These new restricted shares vest on a quarterly basis over a three-year

period, commencing on August 17, 2017 and concludes on August 17, 2020, provided that during such time the chief financial officer will continue to serve as (i) an officer of the Company and/or (ii) an officer in one of the directly held affiliates, except that if he fail to meet the service condition due to the request of the board of directors of either Formula or any of its directly held affiliates (other than a termination of his provision of services which is based on actions or omissions by him that will constitute “cause” under his grant agreement with Formula); then, the chief financial officer will be deemed to have complied with clauses (i) or (ii) above. Notwithstanding the foregoing, if a change of control of the Company occurs, then all unvested new restricted shares will immediately become vested. Total fair value of the grant was calculated based on the Formula share price on the grant date and equaled to \$371 (\$37.1 per share).

The total compensation expense that the Company recorded in its statement of profit or loss for the year ended December 31, 2017 in respect of its chief financial officer (constituting his equity compensation for all of 2017) was \$131.

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Note 17:- Employee Option Plans (Cont.)

As of December 31, 2017, all 10,000 new restricted shares granted in August 2017 were deposited with the trustee. These shares included 833 Ordinary Shares constituting the then currently vested portion of the 10,000 new restricted shares that Formula granted to its chief financial officer.

b. Formula's investees grant, from time to time, options to their officers and employees to purchase shares in the respective companies. In general, the options expire 10 years after grant.

c. The following table sets forth the breakdown of stock-based compensation expense resulting from stock options grants, as included in the consolidated statements of profit or loss:

	Year ended	
	December 31,	
	2016	2017
Cost of revenues	\$15	\$7
Research and development expenses	17	8
Selling and marketing expenses	71	-
General and administrative expenses	4,266	3,972
Total stock-based compensation expense	\$4,369	\$3,987

Matrix:

In October, 2015 Matrix approved agreement with Revava Management Company Ltd. which Mr. Moti Gutman provides services through it to Matrix as a CEO, and in which among other things, Matrix granted Mr. Gutman 225,000 restricted share units (RSU) exercisable into 225,000 ordinary shares of Matrix without an exercise price. The RSU vest in three equal shares portions of 75,000 RSU units, each portion at December 31 of each year agreement,

but not before the issuance of Matrix's financial statements for the past year, and subject to certain conditions. In 2017, 75,000 restricted share units (RSU) were vested and exercised. As of December 31, 2017, Mr. Gutman holds 75,000 restricted share units (RSU). In January, 2018 Matrix granted Mr. Gutman additional 256,980 restricted share units (RSU), vest in five equal shares portions of 51,396 RSU units, each portion at December 31 of each year until 2022, but not before the issuance of Matrix's financial statements for the past year, and subject to certain conditions.

In April, 2015 Matrix Board approved, following the approval of Matrix Compensation Committee, the grant of 1,850,000 options which are exercisable into up to 1,850,000 Ordinary shares of Matrix of NIS 1 par value each to 19 senior officers of Matrix or of corporations controlled by it. The exercise price of the options was NIS 19.485 at the date of their grant, and it is subject to adjustments, including upon the distribution of dividends. Half of the options vested on April 1, 2017, quarter of the options vested on January 1, 2018, and the rest will vest on January 1, 2019. When the actual exercise will take place, shares will be allotted, in the Net Exercise Mechanism. Matrix will not get paid in cash.

In June, 2015, the General Assembly of Matrix approved, after obtaining the approval of Matrix Compensation Committee and Matrix Board to grant 300,000 options exercisable into 300,000 ordinary shares of Matrix of NIS 1 par value without compensation to the President and Vice Chairman of Matrix Board. The exercise price of the warrants was NIS 21.39 at the date of their grant, and it is subject to adjustments, including upon the distribution of dividends. Half of the options vested on June 4, 2017, and the equal parts of the remaining options will vest on 1 January, 2018 and 1 January, 2019.

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Note 17:- Employee Option Plans (Cont.)

The fair value of the options was estimated on the date of grant using the Binomial model based on the terms which are: risk-free interest rate is 0.08% -1.31%, early exercise factor is 30% and expected volatility is 19% -22%. The contractual life of the share options is 5 years from the date of grant.

The following table is a summary of employee option activity as of December 31, 2017, and changes during the year ended December 31, 2017, in Matrix:

	<b>Number of options</b>	<b>Weighted average exercise price</b>	<b>Weighted average remaining contractual term  (in years)</b>	<b>Aggregate intrinsic value</b>
Outstanding at January 1, 2017	2,300,000	4.26	3.13	8,591
Exercised	1,150,000	4.42		5,897
Forfeited	50,000	4.59		
Outstanding at December 31, 2017	1,100,000	4.33	2.19	9,152
Exercisable at December 31, 2017	-	-	-	-

The aggregate intrinsic value in the table above represents the total intrinsic value that would have been received by the option holders had all option holders exercised their options on the respective dates. This value would change based on the change in the market value of Matrix' ordinary shares and the change in the exchange rate between the New Israeli Shekel and dollar. As of December 31, 2017, there was \$173 of total unrecognized compensation costs related to non-vested share-based compensation arrangements granted under Matrix equity incentive plan.

Sapiens:

The following table is a summary of employee option activity as of December 31, 2017, and changes during the year ended December 31, 2017, in Sapiens:

	Year ended December 31, 2017			Aggregate intrinsic value
	Amount of options	Weighted average exercise price	Weighted average remaining contractual life (in years)	
Outstanding at January 1, 2017	2,137,783	6.91	3.43	15,171
Granted	880,000	11.53		
Exercised	(722,483 )	3.40		
Expired and forfeited	(187,887 )	9.71		
Outstanding at December 31, 2017	2,107,413	9.67	4.25	24,749
Exercisable at December 31, 2017	783,663	7.05	2.70	9,028

In 2015, 2016 and 2017, Sapiens granted 673,408, 310,000 and 920,910 stock options to its employees and directors to purchase its shares, respectively. The weighted average grant date fair values of the options granted during the years ended December 31, 2015, 2016 and 2017 were \$3.79, \$4.30 and \$4.17, respectively.

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Note 17:- Employee Option Plans (Cont.)

The total intrinsic value of options exercised during the years ended December 31, 2015, 2016 and 2017, was \$10,294, \$2,304 and \$5,739, respectively.

The options outstanding under Sapiens' stock option plans as of December 31, 2017 have been separated into ranges of exercise price as follows:

Ranges of exercise price	Options outstanding as of December 31, 2017	Weighted Average remaining contractual Term (Years)	Weighted average exercise price \$	Options Exercisable as of December 31, 2017	Weighted Average Exercise price of Options Exercisable \$
1.08-1.68	46,158	3.37	0.71	25,703	56,038
3.14	126,200	0.92	3.14	126,200	2,308
4.32-5.13	47,500	1.55	4.45	47,500	55,397
5.87-6.52	122,500	2.09	5.99	107,500	-
7.01-7.28	88,010	2.25	7.18	61,760	-
8.02-9.01	320,455	3.44	8.08	200,000	-
9.38-9.53	200,000	4.05	9.47	100,000	-
10.38	147,500	3.59	10.38	72,500	55,397
11.01-11.65	855,000	5.54	11.58	20,000	-
12.23-13.70	195,000	5.03	12.59	22,500	-
	2,148,323	4.17	9.49	783,663	7.05

The total equity-based compensation expense related to all of Sapiens' equity-based awards, recognized for the years ended December 31, 2015, 2016 and 2017, after being adjusted to comply with IFRS, was \$1,931, \$2,195 and \$2,201,



respectively. As of December 31, 2017, there was \$5,419 of total unrecognized compensation cost related to non-vested options, which is expected to be recognized over a period of up to four years.

During 2017, 29,500 of the 88,500 restricted shares of Sapiens Decision, the Company's majority-owned subsidiary that were granted to one of the former shareholders of KPI in 2014 vested, thereby reducing the Company's percentage ownership of Sapiens Decision from 94.25% to 92.89%. During 2017, Sapiens Decision granted 122,730 options to certain of its employees to purchase shares of Sapiens Decision.

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Note 17:- Employee Option Plans (Cont.)

Magic:

A summary of employee option activity under the Magic plans as of December 31, 2017 and changes during the year ended December 31, 2017 are as follows:

	<b>Number of options</b>	<b>Weighted average exercise price</b>	<b>Weighted average remaining contractual term  (in years)</b>	<b>Aggregate intrinsic value</b>
Outstanding at January 1, 2017	473,367	4.58	5.10	991
Granted	-	-		
Exercised	(132,808)	4.40		
Forfeited	(31,250 )	6.18		
Outstanding at December 31, 2017	309,309	4.38	3.97	1,237
Exercisable at December 31, 2017	258,059	3.84	3.45	1,171

The aggregate intrinsic value in the table above represents the total intrinsic value that would have been received by the option holders had all option holders exercised their options on the respective dates. This value would change based on the change in the market value of Magic's ordinary shares. Total intrinsic value of options exercised during the years ended December 31, 2015, 2016 and 2017, was \$210, \$112 and \$502, respectively. As of December 31, 2017, there was \$11 of unrecognized compensation cost related to non-vested share-based compensation arrangements granted under Magic's plans. This cost is expected to be recognized over a period of approximately one year.

The options outstanding as of December 31, 2017, have been separated into ranges of exercise price categories, as follows:

Ranges of Exercise price	<b>Options outstanding</b>	<b>Weighted average remaining contractual life</b>	Weighted average exercise price	<b>Options exercisable</b>	<b>Weighted average exercise price of exercisable options</b>
\$		(Years)	\$		\$
1.01-2	20,000	0.98	1.12	20,000	1.12
2.01-3	87,667	2.25	2.31	87,667	2.31
3.01-4	109,142	3.77	4.00	109,142	4.00
5.01-6	6,250	5.61	6.00	-	-
6.01-7	31,250	6.87	6.89	-	-
8.01-9	55,000	6.35	8.01	41,250	8.01
	309,309	3.97	4.38	258,059	3.84

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Note 18:- EMPLOYEE BENEFIT LIABILITIES

Employee benefits consist of post-employment benefits, other long-term benefits and termination benefits.

a. Post-employment benefits:

According to the labor laws and Severance Pay Law in Israel, the Company is required to pay compensation to an employee upon dismissal or retirement or to make current contributions in defined contribution plans pursuant to section 14 to the Severance Pay Law, as specified below. The Company's liability is accounted for as a post-employment benefit. The computation of the Company's employee benefit liability is made according to the current employment contract based on the employee's salary and employment term which establish the entitlement to receive the compensation.

The post-employment employee benefits are normally financed by contributions classified as defined benefit plan or as defined contribution plan, as detailed below.

1) Defined contribution plans:

Section 14 to the Severance Pay Law, 1963 applies to part of the compensation payments, pursuant to which the fixed contributions paid by the Group into pension funds and/or policies of insurance companies release the Group from any additional liability to employees for whom said contributions were made. These contributions and contributions for benefits represent defined contribution plans.

2) Defined benefit plans:

The Group accounts for that part of the payment of compensation that is not covered by contributions in defined contribution plans, as above, as a defined benefit plan for which an employee benefit liability is recognized and for which the Group deposits amounts in central severance pay funds and in qualifying insurance policies.

According to Matrix's agreements with one of its senior officer, he is entitled to an adaptation bonus in the amount of 12 salaries. This liability has been recognized as a defined benefit.

b. Composition of defined benefit plans is as follows:

	December 31,	
	2016	2017
Defined benefit obligation	76,370	87,316
Fair value of plan assets	(70,196)	(78,284)
Net defined benefit liability	6,174	9,032

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Note 19:- Commitments and Contingencies

a. Liens:

A lien has been incurred by Formula over certain portion of its investments in outstanding shares of Matrix, Magic and Sapiens, in pursuant to financial institution credit agreement entered on January 2014 and with respect to Formula's Series A Secured Debentures issued by Formula in September 2015 on the TASE (See Notes 14, 15).

Composition of pledged shares of Matrix, Magic and Sapiens own by Formula as of December 31, 2017 is as follows:

	December 31, 2017	
	Financial institution credit agreement	Formula's Series A Secured Debentures <sup>(1)</sup>
Matrix ordinary shares, par value NIS 1.0 per share	5,263,615	2,435,911
Magic ordinary shares, par value NIS 0.1 per share	2,117,143	2,338,483
Sapiens common shares, par value €0.01 per share	1,410,533	1,260,266

<sup>(1)</sup> In January 2018, following the private placement of additional NIS 150 million par value Series A Secured Debentures, Formula pledged additional 1,692,954 shares of Matrix and 3,487,198 shares of Magic (See Note 15).

b. Guarantees:

1. The Group has provided certain bank guarantees in an aggregate of approximately \$29,700 as security for its subsidiary and affiliate companies' performance of various contracts with customers and suppliers. If the companies were to breach certain terms of such contracts, the customers could demand that the banks providing the guarantees

distribute the amounts claimed to be due.

The Group has provided bank guarantees in an aggregate of approximately \$4,500 as security for its subsidiary and  
2. affiliate companies' rent to be paid for offices. If such companies were to breach certain terms of their leases, the lessors could demand that the banks providing the guarantees distribute the amounts claimed to be due.

3. As of December 31, 2017, the Group had restricted bank deposits of \$900 in favor of bank guarantees and/or subsidiary and affiliate companies' various contracts with customers.

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Note 19:- Commitments and Contingencies (Cont.)

c. Covenants:

In connection with the Group's debentures and credit facility agreements with banks and other financial institutions, the Group committed to the following:

i) Matrix

In the context of Matrix engagements with banks for receiving credit facilities, Matrix has undertaken to maintain the following financial covenants, as they will be expressed in its financial statements, as described:

- The total rate of Matrix debts and liabilities to banks with the addition of debts in respect of debentures that have a) been and/or will be issued by it and shareholders' loans that have been and/or will be provided by it (collectively, "the debts") will not exceed 40% of its total balance sheet.
- b) The ratio of Matrix debts less cash to the annual EBITDA will not exceed 3.5.
- c) Matrix equity shall not be lower than NIS 275 million (approximately \$79.3 million) at all times. Matrix's equity was approximately NIS 653 million (approximately \$188.3 million).
- d) Matrix balances of cash and short-term investments in its balance sheet shall not be lower than NIS 50 million (approximately \$14.4 million).
- e) In the event that Formula ceases to hold 30% of Matrix share capital or is no longer the largest shareholder in Matrix, the credit may be placed for immediate repayment.
- f) Matrix has committed that the rate of ownership and control of Matrix IT-Systems shall never be below 50.1%.



Matrix will not create any pledge on all or part of its property and assets in favor of any third party and will not provide any guarantee to secure any third party's debts as they are today and as they will be without the banks' consent (except for a first rate fixed pledge on an asset which acquisition will be financed by a third party and which the pledge will be in his favor).

h) Matrix will not sell and/or transfer all or part of its assets to others in any manner whatsoever without the banks' advance written consent, unless it is done in the ordinary course of business.

i) Formula

#### 1. Liability to Financial Institution

In the context of Formula's credit facility from a financial institution, Formula has undertaken to maintain the following financial covenants, as they will be expressed in its financial statements, as described:

a) Formula shareholders' equity (not including minority interests) shall not be less than \$160 million at all times.

b) The ratio of Formula shareholders' equity (not including minority interests) to total consolidated assets will not be less than 20%.

c) The ratio of Company's financial debts less cash, short-term deposits and short-term marketable securities to the annual EBITDA will not exceed 3.5 (all based on the Company's consolidated financial statements).

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Note 19:- Commitments and Contingencies (Cont.)

- d) The ratio of Company's financial debts less cash, short-term deposits and short-term marketable securities to the total assets will not exceed 30% (all based on the Company's consolidated financial statements).
  - e) Formula's financial liabilities in its standalone balance sheet shall not be higher than NIS 450 million (approximately \$130 million).
  - f) Formula will not create any pledge on all or part of its property and assets in favor of any third party and will not provide any guarantee to secure any third party's debts without the financial institution's consent.
  - g) Formula will not sell and/or transfer all or part of its assets to others in any manner whatsoever without the financial institution's advance written consent, unless it is done in the ordinary course of business.
- Formula committed not to distribute dividends except for if the ratio of the Company's unpaid principal amount of the loan to the fair market value of its collaterals will not exceed 50%, and if the distribution will not cause its cash, short-term deposits and short-term marketable securities to be less than NIS 45 million (approximately \$13 million), or if the dividend will not exceed 75% of accumulated profits accrued from the date of which the loan was granted until the distribution.

2. Formula's Debentures

In accordance with Formula's indenture of Series A Secured Debentures and Series B Convertible Debentures, Formula has undertaken to maintain the following financial covenants and obligations:

- a) A covenant not to distribute dividends unless (i) Formula shareholders' equity (not including minority interests) shall not be less than \$250 million, (ii) Formula's net financial indebtedness (financial indebtedness net of cash, marketable securities, deposits and other liquid financial instruments) shall not exceed 65% of net CAP (which is defined financial indebtedness, net, plus shareholders' equity), (iii) the amount of the distributions shall be equal to profits for the years ended December 31, 2014 and 2015 and 75% of profits accrued from January 1, 2016 until the distribution and (iv) no event of default shall have

occurred; and

Financial covenants, including (i) the equity attributable to the shareholders of Formula, as reported in Formula's annual or quarterly financial statements, shall not be less than \$160 million, (ii) Formula's net financial indebtedness (financial indebtedness net of cash, marketable securities, deposits and other liquid financial instruments) shall not exceed 65% of net CAP (which is defined as financial indebtedness, net, plus shareholders equity) and (iii) at all times, Formula's cash balance will not be less than the annual interest payment (compounded) for the unpaid principal amount of the Series B debentures.

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Note 19:- Commitments and Contingencies (Cont.)

c) Standard events of default including among others:

i. Suspension of trading of the debentures on the TASE over a period of 60 days

ii. If the rating of the debentures is less than BBB- by Standard and Poors Maalot or equivalent rating of other rating agencies

iii. Failure to have the debentures rated over a period of 60 days

iv. If there is a change in control without consent of the rating agency; and

v. If Formula fails to continue to control any of its subsidiaries.

ii) Sapiens

In accordance with the indenture for Sapiens' Series B Debentures, Sapiens has undertaken to maintain a number of conditions and limitations on the manner in which it can operate its business, including limitations on its ability to undergo a change of control, distribute dividends, incur a floating charge on its assets, or undergo an asset sale or other change that results in fundamental change in its operations. Sapiens Series B Debentures deed of trust also requires it to comply with certain financial covenants, as described below. A breach of the financial covenants for more than two successive quarters or a substantial downgrade in the rating of the debentures (below BBB-) could result in the acceleration of Sapiens obligation to repay the debentures.

The deed of trust includes the following provisions:

a) a negative pledge, subject to certain exceptions;

a covenant not to distribute dividends unless (i) Sapiens shareholders' equity (not including minority interests) shall not be less than \$160 million, (ii) Sapiens net financial indebtedness (financial indebtedness net of cash, marketable securities, deposits and other liquid financial instruments) does not exceed 65% of net CAP (which is b) defined as financial indebtedness, net, plus shareholders equity, including minority interest), (iii) the amount of the dividend does not exceed Sapiens profits for the year ended December 31, 2016 and the first three quarters of the year ended December 31, 2017, plus 75% of Sapiens profits as of September 1, 2017 and up to the date of distribution, and (iv) no event of default shall have occurred; and

financial covenants, including (i) the equity attributable to the shareholders of Sapiens (not including minority interests), as reported in our annual or quarterly financial statements, will not be less than \$120 million, and (ii) Sapiens' net financial indebtedness (financial indebtedness net of cash, marketable securities deposits and other c) liquid financial instruments) shall not exceed 65% of net CAP (which is defined as financial indebtedness, net, plus shareholders equity, including deposits and other liquid financial instruments) shall not exceed 65% of net CAP (which is defined as financial indebtedness, net, plus shareholders equity, including minority interests).

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Note 19:- Commitments and Contingencies (Cont.)

iii) Magic

Under the terms of the loan with the Israeli financial institution, Magic has undertaken to maintain the following financial covenants, as they will be expressed in its consolidated financial statements (in accordance with USGAAP), as described below:

- a) Total equity attributable to Magic' shareholders shall not be lower than \$100 million at all times;
- b) Magic's consolidated cash and cash equivalents and marketable securities available for sale shall not be less than \$10 million.
- c) The ratio of Magic's consolidated total financial debts to consolidated total assets will not exceed 50%.
- d) The ratio of Magic's total financial debts less cash, short-term deposits and short-term marketable securities to the annual EBITDA will not exceed 3.25; and
- e) Magic shall not create any pledge on all of its property and assets in favor of any third party without the financial institution's consent.

As of December 31, 2017, each of Formula, Matrix, Sapiens and Magic is in compliance with all of its financial covenants.

d. Legal proceedings:

1. In August 2009, an Israeli software company and one of its owners initiated an arbitration proceeding against Magic and one of its subsidiaries, claiming an alleged breach of a non-disclosure agreement between the parties (the "First

Arbitration”). The software company sought damages in the amount of approximately NIS 52 million (approximately \$13.4 million). The arbitrator rendered his decision in January 2015 and determined that Magic should pay the plaintiffs damages in an amount of \$2.4 million.

In September 2016, the same software company filed a lawsuit against Magic and one of its subsidiaries, seeking damages of NIS 34.1 million (approximately \$9.8 million) in the context of the First Arbitration. In the lawsuit, the software company claims that warning letters that Magic sent to its clients in Israel and abroad, warning the clients against the possibility that the conversion procedure offered by the software company may amount to an infringement of Magic’s copyrights (the “Warning Letters”), may have caused it irreparable damages resulting from the loss profit of potential business. The lawsuit is based on rulings given in the First Arbitration proceeding, in which it was decided that the Warning Letters constituted a breach of a non-disclosure agreement (NDA) signed between the parties, and upon certain damages that were awarded then to the software company for the years 2009-2010, and claims that the First Arbitration granted it permission to seek damages relating the years 2011 onwards in separate proceedings. On January 23, 2017, Magic filed its statement of defense, maintaining, on various grounds, that the new lawsuit must be dismissed. The plaintiffs filed their response on April 2, 2017.

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Note 19:- Commitments and Contingencies (Cont.)

Both sides have submitted witness statements, as well as expert opinions relating to both financial issues, technical issues and Google Ads issues.

In view of the nature of the claims, both factual and legal, that were raised in the proceedings, in view of the likelihood of an expert-based ruling, and given the preliminary stage of the proceeding, it is impossible to properly evaluate the prospect of the lawsuit being successful.

In February 2018, Comm-IT Ltd, a Magic subsidiary, commenced an action against a customer for payment of an overdue amount in the Supreme Court of the State of New York, New York County. In April 2018, the customer 2. filed an answer in the action that included counterclaims asserting causes of action for breach of contract, fraud, and trespass to chattel. Based on Magic's review of the allegations asserted in the counterclaims, it appears that the allegations do not have merit.

On February 26, 2017, a bill of indictment was submitted by the Israeli Antitrust Authority against a subsidiary of Matrix and against a junior employee of this subsidiary, claiming that the junior employee and as follows the 3. subsidiary were allegedly a party in a binding agreement and also by "obtaining by fraud", in one indictment regarding a tender of \$360.

4. In addition to the above-described legal proceedings, from time to time, Formula and/or its subsidiaries and affiliates are subject to legal, administrative and regulatory proceedings, claims, demands and investigations in the ordinary course of business, including claims with respect to intellectual property, contracts, employment and other matters. The Group accrues a liability when it is both probable that a liability has been incurred and the amount of the loss can be reasonably estimated. Significant judgment is required in the determination of both the probability and as to whether a loss is reasonably estimable. These accruals are reviewed at least quarterly and adjusted to reflect the impact of negotiations, settlements, rulings, advice of legal counsel and other information and events pertaining to a particular matter. The Group intends to defend itself vigorously against the above claims, and it generally intends to vigorously defend any other legal claims to which it is subject. While for most litigation, the



outcome is difficult to determine, to the extent that there is a reasonable possibility that the losses to which the Group may be subject could exceed the amounts (if any) that it has already accrued, the Group attempts to estimate such additional loss, if reasonably possible, and disclose it (or, if it is an immaterial amount, indicate accordingly). The aggregate provision that the Group has recorded for all other legal proceedings (other than the particular material proceedings described above) is not material.

5 Furthermore, in respect of its ordinary course legal, administrative and regulatory proceedings (that is, other than the particular material proceedings described above), the Group estimates, in accordance with the procedures described above, that as of the current time there is no reasonable possibility that it will incur material losses exceeding the non-material amounts already recognized.

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Note 19:- Commitments and Contingencies (Cont.)

e. Operating lease commitments:

The following are details of the Company's future minimum lease commitments for facilities and equipment, office space and motor vehicles under non-cancelable operating leases as of December 31, 2017:

2018	31,196
2019	15,767
2020	11,279
2021	4,027
2022 and Thereafter	2,917
	65,186

Rent expenses for the years 2015, 2016 and 2017 were approximately \$22,701, \$25,411 and \$28,343 respectively.

The Company leases motor vehicles under a cancelable lease agreement. The Company has an option to be released from this lease agreement, which may result in penalties ranging between one and three times lease monthly cost.

f. Royalty commitments:

Sapiens Technologies (1982) Ltd. ("Sapiens Technologies"), a wholly owned subsidiary of Sapiens incorporated in Israel, was partially financed under programs sponsored by the Israel Innovation Authority ("IIA"), formerly the Office of the Chief Scientist ("OCS") for the support of certain research and development activities conducted in Israel. In exchange for participation in the programs by the IIA, Sapiens Technologies agreed to pay 3.5% of total net consolidated license and maintenance revenue and 0.35% of the net consolidated consulting services revenue related

to the software developed within the framework of these programs based on an understanding with IIA reached in January 2012. The royalties will be paid up to a maximum amount equaling 100%-150% of the grants provided by the IIA, linked to the dollar, and for grants received after January 1, 1999, bear annual interest at a rate based on LIBOR.

As of December 31, 2017, the estimated amount due to OCS amounted to \$1,944.

g. Insurance:

The Company and its subsidiaries and affiliates insure themselves in bodily injury and property damage insurance policies, including third party, professional liability and employer's liability insurance policies. Formula, Sapiens and Magic directors and officers (D&O) are insured under an "umbrella" policy for insurance of directors and officers including D&O side A DIC policy (another layer of protection for officers) acquired by the Company for itself and its subsidiaries, for a period of 18 months from June 18, 2017.

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Note 20:- equity

The composition of the Company's share capital is as follows:

	December 31, 2016		Outstanding	December 31, 2017		Outstanding
	Authorized	Issued		Authorized	Issued	
Ordinary shares, NIS 1 par value each	25,000,000	15,297,402	14,728,782	25,000,000	15,307,402	14,738,782

a. Formula's Ordinary Shares, par value NIS 1 per share, are traded on the TASE and Formula's ADSs, each representing one ordinary share, are traded on the NASDAQ.

b. Formula holds 568,620 of its ordinary shares.

c. In January 2016, Formula declared a cash dividend of approximately \$5,008 (or \$0.34 per share) to shareholders of record on January 20, 2016 that was paid on February 4, 2016.

d. In June 2016, Formula declared a cash dividend of approximately \$5,008 (or \$0.34 per share) to shareholders of record on July 13, 2016 that was paid on July 28, 2016.

e. In December 2016, Formula declared a cash dividend of approximately \$7,070 (or \$0.48 per share) to shareholders of record on December 30, 2016 that was paid on January 12, 2017.

f. In September 2017, Formula declared a cash dividend of approximately \$5,011 million (or \$0.34 per share) to shareholders of record on October 17, 2017 that was paid on November 2, 2017.

g. For information concerning Formula's employees and officers share-based plans, see Note 17.

Note 21:- Taxes ON INCOME

a. Israeli taxation:

1. Corporate tax rate in Israel:

The Israeli corporate income tax rate was 24% in 2017, 25% in 2016 and 26.5% in 2015.

In December 2016, the Israeli Parliament approved the 2016 Amendment which reduced the corporate income tax rate to 24% (instead of 25%) effective from January 1, 2017 and to 23% effective from January 1, 2018.

2. Tax benefits under the Israeli Law for the Encouragement of Capital Investments, 1959 (“the Law”):

Certain of Formula’s Israeli subsidiaries have been granted “Approved Enterprise” and “Preferred Enterprise” status pursuant to the Law, which provides certain tax benefits including tax exemptions and reduced tax rates. Income not eligible for Approved Enterprise and Preferred Enterprise benefits is subject to corporate tax at the rate that would have otherwise been applicable on the Approved or Preferred Enterprise’s income.

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Note 21:- Taxes ON INCOME (Cont.)

The entitlement to the above benefits is conditional upon the continues fulfillment of the conditions stipulated by the Laws and regulations published thereunder and the letters of approval for the specific investments in “approved enterprises”. Should any of Formula’s Israeli subsidiaries fail to meet such requirements in the future, income attributable to their relevant entity’s Approved Enterprise or Preferred Enterprise programs could be subject to the statutory Israeli corporate tax rate, and the entity could be required to refund a portion of the tax benefits already received with respect to such programs in whole or in part, including interest and CPI linkage.

On December 29, 2010, the Knesset approved an additional amendment to the Law for the Encouragement of Capital Investments, 1959 (“2011 Amendment”). According to the 2011 Amendment, a reduced uniform corporate tax rate for exporting industrial enterprises (over 25%) was established. The reduced tax rate will not be program dependent and will apply to the “Preferred Enterprise’s” (as such term is defined in the Investment Law) entire income. Pursuant to the 2011 Amendment, a “Preferred Enterprise” is entitled to a reduced corporate tax rate. Such corporate tax rate was determined to be 16% for 2014 until 2016.

As of December 31, 2011 and 2015, Magic and some of Sapiens Israeli subsidiaries, respectively, had filed a notice to the Israeli tax authorities in order to apply the new benefits under the 2011 Amendment and therefore subjected to the amended tax rate of 16%.

The Amendment also prescribes that any dividends distributed to individuals or foreign residents from the preferred enterprise’s earnings as above will be subject to tax at a rate of 20%.

New Amendment- Preferred Technology Enterprise

In December 2016, the Israeli Knesset passed Amendment 73 to the Investment Law which included a number of changes to the Investments Law regimes. Certain changes were scheduled to come into effect beginning January 1, 2017, provided that regulations are promulgated by the Finance Ministry to implement the “Nexus Principles” based on OECD guidelines recently published as part of the Base Erosion and Profit Shifting (BEPS) project. The regulations have been approved on May 1, 2017 and accordingly, these changes have come into effect. Applicable benefits under the new regime include:

Introduction of a benefit regime for “Preferred Technology Enterprises” granting a 12% tax rate in central Israel – on income deriving from Intellectual Property, subject to a number of conditions being fulfilled, including a minimal amount or ratio of annual R&D expenditure and R&D employees, as well as having at least 25% of annual income derived from exports. Preferred Technology Enterprise (“PTE”) is defined as an enterprise which meets the aforementioned conditions and for which total consolidated revenues of its parent company and all subsidiaries are less than NIS 10 billion. A 12% capital gains tax rate on the sale of a preferred intangible asset to a foreign affiliated enterprise, provided that the asset was initially purchased from a foreign resident at an amount of NIS 200 million or more.

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Note 21:- Taxes ON INCOME (Cont.)

A withholding tax rate of 20% for dividends paid from PTE income (with an exemption from such withholding tax applying to dividends paid to an Israeli company). Such rate may be reduced to 4% on dividends paid to a foreign resident company, subject to certain conditions regarding percentage of foreign ownership of the distributing entity.

Starting 2017, certain of the Company's subsidiaries' taxable income in Israel is entitled to a preferred 12% tax rate under Amendment 73 to the Investment Law.

3. Tax benefits under the Israeli Law for the Encouragement of Industry (Taxes), 1969:

It is Formula's management's belief that certain of its Israeli investees currently qualify as an "Industrial Company," within the meaning of the Law for the Encouragement of Industry (Taxes), 1969 (the "Industrial Encouragement Law"). That Industrial Encouragement Law defines an "Industrial Company" as a company that is resident in Israel and that derives at least 90% of its income in any tax year, other than income from defense loans, capital gains, interest and dividends, from an enterprise whose major activity in a given tax year is industrial production. Under the Industrial Encouragement Law, these Israeli subsidiaries are entitled to amortization of the cost of purchased know-how and patents over an eight-year period for tax purposes as well as accelerated depreciation rates on equipment and buildings. Eligibility for the benefits under the Industrial Encouragement Law is not subject to receipt of prior approval from any governmental authority.

4. Foreign Exchange Regulations:

Under the Foreign Exchange Regulations, certain Israeli subsidiaries of Formula calculate their tax liability in dollars according to certain orders. The tax liability, as calculated in dollars is translated into NIS according to the exchange rate as of December 31 of each year.



5. Structural changes in Matrix:

On August 22, 2016, a tax ruling was signed determining that from December 31, 2015 as part of the merger procedures, 5 companies wholly owned directly or indirectly by Matrix IT, will transfer all their assets and liabilities, subject to the provisions of section 103 of the Tax income.

On August 21, 2017, a tax ruling was signed determining that from December 31, 2016 as part of the merger procedures, 4 companies wholly owned directly or indirectly by Matrix IT will transfer all their assets and liabilities, subject to the provisions of section 103 of the Tax income.

On December 27, 2017 Matrix applied for a merger process as an extension of the above mentioned merger for 2 additional companies holly owned directly or indirectly by Matrix IT, subject to the provisions of section 103 of the Israeli Income Tax Ordinance. The approval is pending.

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Note 21:- Taxes ON INCOME (Cont.)

b. Non-Israeli investees:

Non-Israeli investees are taxed according to the tax laws in their respective country of residence. Neither Israeli income taxes, foreign withholding taxes nor deferred income taxes were provided in relation to undistributed earnings of the non-Israelis subsidiaries. This is because the Group intends to permanently reinvest undistributed earnings in the foreign subsidiaries in which those earnings arose. If these earnings were distributed to Israel in the form of dividends or otherwise, the Group would be subject to additional Israeli income taxes (subject to an adjustment for foreign tax credits) and non-Israeli withholding taxes.

The amount of undistributed earnings of foreign subsidiaries and affiliates that are considered to be reinvested as of December 31, 2017 was \$77,231. However, a determination of the amount of the unrecognized deferred tax liability for temporary difference related to those undistributed earnings of foreign subsidiaries is not practicable due to the complexity of the structure of our group of investees for tax purposes and the difficulty of projecting the amount of future tax liability.

The amount of cash and cash equivalents that were held by the Group's investees outside of Israel and would have been subject to income taxes if distributed as dividend as of December 31, 2016 and 2017 was \$61,993 and \$48,628, respectively.

c. Tax Reform- United States of America

The U.S. Tax Cuts and Jobs Act of 2017 ("TCJA") was approved by US Congress on December 20, 2017 and signed into law by US President Donald J. Trump on December 22, 2017. This legislation makes complex and significant changes to the U.S. Internal Revenue Code. Such changes include a reduction in the corporate tax rate and limitations on certain corporate deductions and credits, among other changes.

The TCJA reduces the U.S. federal corporate income tax rate from 35% to 21% effective January 1, 2018. In addition, the TCJA makes certain changes to the depreciation rules and implements new limits on the deductibility of certain expenses and deduction.

Except for one US subsidiary which has a share interest in a subsidiary in India, the all other Group's subsidiaries in the United States do not have any foreign subsidiaries and, therefore, the remaining provisions of the Act have no material impact on the Company's results of operations.

The Group re-measured its U.S. deferred tax assets and liabilities, based on the rates at which they are expected to reverse in the future.

The SEC staff has issued SAB 118 which will allow the Company to record provisional amounts during a measurement period. The Group has concluded that a reasonable estimate could be developed for the effects of the tax reform. However, due to the short time frame between the enactment of the reform and the year end, its fundamental changes, the accounting complexity, and the expected ongoing guidance and accounting interpretations over the next 12 months, the Group considers the accounting of the deferred tax re-measurement and other items to be incomplete.

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Note 21:- Taxes ON INCOME (Cont.)

d. Net operating loss carried forward:

Formula

Formula stand-alone had cumulative losses for tax purposes as of December 31, 2017 totaling approximately \$74,260 (as of December 31, 2016, the amount was \$61,960), which can be carried forward and offset against taxable income in the future for an indefinite period.

Matrix

Matrix had cumulative losses for tax purposes as of December 31, 2017 totaling approximately \$38,120 (as of December 31, 2016, the amount was \$34,890), which can be carried forward and offset against taxable income in the future for an indefinite period.

Magic

As of December 31, 2017, Magic and its subsidiaries had operating loss carry forwards of \$19,478 (as of December 31, 2016, the amount was \$17,183), which can be carried forward and offset against taxable income in the future for an indefinite period.

Utilization of U.S. net operating losses may be subject to substantial annual limitations due to the “change in ownership” provisions (“annual limitations”) of the Internal Revenue Code of 1986 and similar state provisions. The annual limitation may result in the expiration of net operating losses before utilization.

Sapiens

As of December 31, 2017, certain subsidiaries of Sapiens had tax loss carry-forwards totaling approximately \$35,647 (as of December 31, 2016, the amount was \$24,177). Most of these carry-forward tax losses have no expiration date.

Insync

Insync didn't have cumulative losses for tax purposes as of December 31, 2017 (and also as of December 31, 2016).

Michpal

Michpal didn't have cumulative losses for tax purposes as of December 31, 2017.

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Note 21:- Taxes ON INCOME (Cont.)

Formula and its subsidiaries and its affiliates have cumulative losses for tax purposes as of December 31, 2017 totaling approximately \$175,965 (as of December 31, 2016, the amount was \$145,870), of which \$146,978 was in respect of companies in Israel which can be carried forward and offset against taxable income in the future for an indefinite period (as of December 31, 2016, the amount was \$118,997), and approximately \$28,987 of which was in respect of companies abroad (as of December 31, 2016, that amount was \$26,873).

e. Income tax assessments:

Formula and its subsidiaries are routinely examined by various taxing authorities. Below is a summary of the income tax assessments of Formula and its subsidiaries:

Formula

Formula has received final tax assessments (or assessments that are deemed final) through the tax year 2012.

Matrix

Matrix and subsidiaries has received final tax assessments (or assessments that are deemed final) through the tax year 2013.

Magic

Magic and its Israeli subsidiaries have received final tax assessments (or assessments that are deemed final) through the year 2012.

Sapiens

Tax assessments filed by part of Sapiens' Israeli subsidiaries through the year ended December 31, 2012 are considered to be final (or are deemed final).

f. Deferred tax assets (liabilities), net:

1. Composition, net:

	December 31,	
	2016	2017
Net operating losses carried forward	\$6,903	\$8,081
Allowances, reserves and intangible assets	(19,108 )	(25,015 )
Capitalized software costs	(267 )	(92 )
Differences in measurement basis (cash basis for tax purposes)	(3,330 )	(3,701 )
Total	\$*) (15,802 )	\$(20,727)

\*) Adjustment to comparative data (See Note 4(iv)(f)).

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Note 21:- Taxes ON INCOME (Cont.)

2. Presentation in balance sheets:

	December 31,	
	2016	2017
Deferred taxes assets	\$15,227	\$15,878
Deferred tax liabilities	*) (31,029)	(36,605)
	\$(15,802 )	\$(20,727)

\*) Adjustment to comparative data (See Note 4(iv)(f)).

g. Income before taxes on income:

	<b>Year ended</b>		
	<b>December 31,</b>		
	2015	2016	2017
Domestic (Israel)	\$51,735	\$51,552	\$38,204
Foreign	14,603	25,711	14,607
Total	\$66,338	\$77,263	\$52,811

h. Taxes on income (tax benefit) consist of the following:

**Year ended**



**December 31,**

2015      2016      2017

Current taxes	\$15,350	\$20,952	\$22,375
Deferred taxes	634	211	(9,004)
<b>Total</b>	<b>\$15,984</b>	<b>\$21,163</b>	<b>\$13,371</b>

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Note 21:- Taxes ON INCOME (Cont.)

i. Theoretical tax:

The following table presents reconciliation between the theoretical tax expense, assuming that all income was taxed at statutory tax rates, and the actual income tax expense, as recorded in the Company's statements of income:

	<b>Year ended December 31,</b>					
	2015		2016		2017	
Income before income taxes, as per the statement of operations	\$66,338		\$77,263		\$52,811	
Statutory tax rate in Israel	26.5	%	25	%	24	%
Tax computed at the statutory tax rate	17,579		19,316		12,675	
Non-deductible expenses (non-taxable income) net and tax-deductible costs not included in the accounting costs	1,358		978		1,522	
Effect of different tax rates	(54	)	(1,143	)	843	
Effect of "Approved, Beneficiary or Preferred Enterprise" status	(2,406	)	(1,338	)	(252	)
Group's share of profits of companies accounted for at equity	-		(87	)	(270	)
Deferred taxes on current losses (utilization of carry forward losses) and temporary differences for which a valuation allowance was provided, net	1,676		1,442		4,695	
Effect of change in tax rates	-		112		(5,796	)
Taxes in respect of prior years	(1,284	)	1,718		(227	)
Non-refundable withholding tax and tax advances	-		121		178	
Other	(885	)	44		3	
Taxes on income	15,984		\$21,163		\$13,371	

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Note 21:- Taxes ON INCOME (Cont.)

j. Uncertain tax positions:

A reconciliation of the beginning and ending amount of total unrecognized tax benefits in Formula's subsidiaries is as follows:

Balance as of January 1, 2015	1,625
Increase due to consolidation in a subsidiary <sup>(1)</sup>	154
Decrease related to prior years' tax positions	(326 )
Increase related to current year tax positions	1,039
Balance as of December 31, 2015	2,492
Increase due to consolidation in a subsidiary	227
Decrease related to prior years' tax positions	(286 )
Increase related to current year tax positions	847
Balance as of December 31, 2016	3,280
Increase due to consolidation in a subsidiary	66
Decrease related to prior years' tax positions	(135 )
Increase related to current year tax positions	813
Balance as of December 31, 2017	4,024

(1) The amount initially consolidated as part of the acquisition of subsidiary in 2015 is net of Tax Deducted at Source assets in an amount of \$635

The Group recognizes accrued interest and penalties related to unrecognized tax benefits as a component of income tax expense. For the years ended December 31, 2015, 2016 and 2017, the amounts recognized, on a consolidated basis, for interest and penalties expenses related to uncertain tax positions were \$224, \$68 and \$82, respectively. In addition, the Group's consolidated liability for unrecognized tax benefits including accrued interest and penalties related to uncertain tax positions was \$490 and \$572 at December 31, 2016 and 2017, respectively, which is included within income tax accrual in the Group's consolidated balance sheets.

The entire balance of unrecognized tax benefits, if recognized, would reduce the Company's annual effective tax rate.

Note 22:- Supplementary Financial Statement Information

a. Non-controlling interest in material partially owned subsidiaries:

	December 31,	
	2016	2017
Matrix and its subsidiaries	\$91,606	\$104,750
Sapiens and its subsidiaries	188,470	193,973
Magic and its subsidiaries	107,271	114,925
Other	108	72
	\$387,455	\$413,720

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Note 22: - Supplementary Financial Statement Information (Cont.)

b. Financial income and expenses:

Composition:

	<b>Year ended</b>		
	<b>December 31,</b>		
	2015	2016	2017
Financial expenses:			
Business combination	\$1,204	\$2,602	\$765
Bank charges, interest and foreign exchange differences	6,370	6,972	18,619
Interest expenses on short-term and long-term loans	6,830	6,061	7,700
Financial costs related to Debentures	551	1,959	2,832
	14,955	17,594	29,916
Financial income:			
Income from marketable securities	1,122	865	138
Interest income from deposits and foreign exchange differences	4,300	5,143	8,611
	5,422	6,008	8,749
Total	\$(9,533 )	\$(11,586)	\$(21,167)

c. Geographical information:

1. The Company's property and equipment is located as follows:

December 31,  
2016      2017

Israel	\$20,320	\$22,615
United States	3,130	4,369
Europe	1,456	1,412
Japan	401	302
Other	823	1,109
<b>Total</b>	<b>\$26,130</b>	<b>\$29,807</b>

## 2. Revenues:

The Company's revenues classified by geographic area (based on the location of customers) are as follows:

	<b>Year ended December 31,</b>		
	2015	2016	2017
Israel	\$570,614	\$663,341	\$846,298
International:			
United States	252,526	283,297	322,892
Europe	112,169	115,444	131,025
Africa	2,529	2,296	24,370
Japan	30,009	38,310	15,763
Other (mainly Asia pacific)	5,347	5,933	14,791
<b>Total</b>	<b>\$973,194</b>	<b>\$1,108,621</b>	<b>\$1,355,139</b>

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Note 22: - Supplementary Financial Statement Information (Cont.)

d. Earnings per share:

The following table presents the computation of basic and diluted net earnings per share for the Company:

	<b>Year ended</b>		
	<b>December 31,</b>		
	2015	2016	2017
Numerator:			
Net income basic earnings per share - income available to shareholders	\$ 19,842	\$ 22,455	\$ 10,352
Amount for diluted earnings per share - income available to shareholders	\$ 19,528	\$ 23,207	\$ 10,085
Weighted average shares outstanding			
Denominator for basic net earnings per share	14,071	14,214	14,437
Effect of dilutive securities	594	1,311	295
Denominator for diluted net earnings per share	14,665	15,525	14,732
Basic net earnings per share	1.41	1.58	0.72
Diluted net earnings per share	1.33	1.49	0.68

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NOTE 23:- OPERATING SEGMENTS

a.

General:

The Company operates in the software services and proprietary software products and related services through four directly held entities: Matrix, Sapiens, Magic and Insync.

**Matrix**

Matrix IT Ltd. is Israel's leading IT services company. Matrix provides software solutions and services, software development projects, outsourcing, integration of software systems and services – all in accordance with its customers' specific needs. Matrix also provides upgrading and expansion of existing software systems.

Matrix operates through its directly and indirectly held subsidiaries in the following segments: (1) Software solutions and services in Israel (Information Technology – IT); (2) Software solutions and services in the U.S (Information Technology – IT) (3) training and integration; (4) Computer infrastructure and integration solutions; and, (5) Software product marketing and support.

*Software solutions and services in Israel:*

The software solutions and services in Israel provided by Matrix consist mainly of providing tailored software solutions and upgrading and expanding existing software systems. These services include, among others, developing customized software, adapting software to the customer's specific needs, implementing software and modifying it based on the customer's needs, outsourcing, project management, software testing and QA and integrating all or part of



the above elements. The scope of work invested in each element varies from one customer to the other. In 2017, activity in Software solutions and value added services in Israel accounted for approximately 61% of Matrix's revenues for approximately 49% of its operating income.

*Software solutions and services in U.S:*

Activity in this sector is mainly providing solutions and services of Governance Risk and Compliance ("GRC") experts, including activities on the following topics: risk management, management and prevention of fraud, Anti-Money Laundering and securing compliance with the regulations on these issues, through Matrix-IFS (formerly Exzac Inc.), a wholly owned subsidiary of Matrix, as well as providing solutions and specialized technological services in areas such as: portals, BI (Business Intelligence) DBA (Data Base Administration), CRM (Customer Relation Management) and EIM (Enterprise Information Management), and in addition, the activity in this segment includes IT help desk services specializing in healthcare and software product distribution services particularly IBM products. The activity in this segment is performed mostly through Matrix IFS and Xtivia Technologies Inc., wholly owned subsidiaries of Matrix. In 2017, activity in the U.S accounted for approximately 11% of Matrix's revenues and for approximately 21% of its operating income, because of higher operating gross margin in the U.S.

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NOTE 23:- OPERATING SEGMENTS (Cont.)

*Training and integration:*

Matrix's activities in this segment consist of operating a network of high-tech training and instruction centers which provide application courses, professional training courses and advanced professional studies in the high-tech industry, courses of soft skills and management training and provision of training and implementation of computer systems. In 2017, activity in training and integration accounted for approximately 6% of Matrix's revenues and for approximately 9% of its operating income

*Computer infrastructure and integration solutions:*

Matrix's activities in this segment is primarily providing computer solutions to computer and communications infrastructures, marketing and sale of computers and peripheral equipment to business customers, providing related services, and cloud computing solutions (through the business specializing unit of the Company - Cloud Zone) and a myriad of services regarding Database services and Big data services (through the specialized business unit Data zone). In 2017, activity in Computer infrastructure and integration solutions accounted for approximately 17% of Matrix's revenues and for approximately 11% of its operating income.

*Software product marketing and support:*

Matrix's activities in this segment include marketing, distributing and support for various software products the principal of which are CRM, computer systems management infrastructures, web world content management, database and data warehouse mining, application integration, database and systems, data management and software development tools. In 2017, activity in Software product marketing and support accounted for about 5% of Matrix's

revenues and for approximately 10% of its operating income.

### **Sapiens**

Sapiens is a leading global provider of proprietary software solutions for the insurance industry, with an emerging focus on the broader financial services sector. Sapiens offerings include a broad range of software solutions and services, comprised of (i) core software solutions for the insurance industry, including Property & Casualty/General Insurance (“P&C”) and Life, Annuities and Pensions (“L&P”) products, and record keeping software solutions for providers of Retirement Services (ii) variety of technology based solution including business decision management solutions for the financial services industry, including insurance, banking and capital markets and (iii) global Services including project delivery and implementation of the Company’ software solutions.

Sapiens has developed scalable, configurable, rule-based core software platforms which offer its clients comprehensive and function-rich solutions. Sapiens solutions allow its customers to support new delivery channels such as mobile and social, rapidly deploy new products, and improve operational efficiency. As its software is customizable to match specific business requirements, it supports its customers’ operations across different market segments, geographies and regulatory regimes.

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NOTE 23:- OPERATING SEGMENTS (Cont.)

In addition, its software solutions enable compliance with complex and rapidly evolving regulations in the insurance and wider financial services industry.

Sapiens technology-based solutions include application development and business decision management platforms. Its application development platforms allow for the deployment of tailor-made solutions that address unique business needs for which pre-packaged software solutions may not be available. Its business decision management platform, Sapiens DECISION, allows business professionals to design, simulate, implement, change and analyze the business logic that drives financial operations and compliance in a business-friendly format and environment. Its platform facilitates the swift deployment of new or changed business logic that originates from regulatory updates or market changes, reduces costs and improves efficiency by shortening the software development lifecycle. This platform empowers the organization's business users as they manage their business strategy, rules and logic by using business terms rather than programming language. Sapiens' insurance solutions are deployed at leading insurance carriers globally. Sapiens' service offerings include a standard consulting offering that helps customers make better use of IT in order to achieve their business objectives.

**Magic**

Magic is a global provider of: (i) proprietary application development and business process integration platforms; (ii) selected packaged vertical software solutions; as well as (iii) a vendor of software services and IT outsourcing software services.

Magic technology is used by customers to develop, deploy and integrate on-premise, mobile and cloud-based business applications quickly and cost effectively. In addition, its technology enables enterprises to accelerate the process of delivering business solutions that meet current and future needs and allow customers to dramatically improve their business performance and return on investment. To complement its software products and to increase its traction with

customers, Magic also offers a vast portfolio of professional services in the areas of infrastructure design and delivery, application development, technology consulting planning and implementation services, support services, cloud computing for deployment of highly available and massively-scalable applications and API's and supplemental outsourcing services.

In addition, Magic offers, through certain of its subsidiaries, a variety of proprietary comprehensive packaged software solutions for (i) revenue management and monetization solutions in mobile, wireline, broadband and mobile virtual network operator/enabler, or MVNO/E ("Leap"); (ii) enterprise management systems for both hubs and traditional air cargo ground handling operations from physical handling and cargo documentation through customs, seamless electronic data interchange, or EDI communications, dangerous goods, special handling, track and trace, security to billing ("Hermes"); (iii) enterprise human capital management, or HCM, solutions, to facilitate the collection, analysis and interpretation of quality data about people, their jobs and their performance, to enhance HCM decision making ("HR Pulse"); (iv) comprehensive systems for managing broadcast channels in the area of TV broadcast management through cloud-based on-demand service or on-premise solutions; and (vi) enterprise-wide and fully integrated medical platform ("Clicks"), specializing in the design and management of patient-file oriented software solutions for managed care and large-scale health care providers. This platform allows providers to securely access an individual's electronic health record at the point of care, and it organizes and proactively delivers information with potentially real time feedback to meet the specific needs of physicians, nurses, laboratory technicians, pharmacists, front- and back-office professionals and consumers.

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NOTE 23:- OPERATING SEGMENTS (Cont.)

Magic solutions are used by customers to develop, deploy and integrate on-premise, mobile and cloud-based business applications quickly and cost effectively. In addition, its technology enables enterprises to accelerate the process of delivering business solutions that meet current and future needs and allow customers to dramatically improve their business performance and return on investment. Its software solutions include application platforms for developing and deploying specialized and high-end large-scale business applications (Magic xpa application platform, formerly branded uniPaaS and Appbuilder), an integration platform that allows the integration and interoperability of diverse solutions, applications and systems in a quick and efficient manner (Magic xpi business and process integration platform, formerly branded iBOLT) and a hybrid integration platform as a service (IPaaS), which enables customers to accelerate digital transformation on the cloud, on-premises or on both (Magic xpc). These solutions enable Magic customers to improve their business performance and return on investment by supporting the affordable and rapid delivery and integration of business applications, systems and databases.

Magic products and services are available through a global network of regional offices, independent software vendors, system integrators, distributors and value added resellers as well as original equipment manufacturers and consulting partners in approximately 50 countries.

**Insync**

InSync is a U.S based national supplier of employees to Vendor Management Systems (VMS) Workforce Management Program accounts. Insync specializes in providing professionals in the following areas; Accounting and Finance, Administrative, Customer Service, Clinical, Scientific and Healthcare, Engineering, Manufacturing and Operations, Human Resources, IT Technology, LI/MFG, and Marketing and Sales. InSync currently supports more than 30 VMS program customers with employees in over 40 states.

**Michpal**

Michpal, an Israeli registered company, is a developer of proprietary, on-premise payroll software solution for processing traditional payroll stubs to Israeli enterprises and payroll service providers. Michpal also developed several complementary modules such as attendance reporting, which are sold to its customers for additional fees. As of December 31, 2017, Michpal serves approximately 8,000 customers, most of which are long-term customers.

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**U.S. dollars in thousands, except share and per share data**

NOTE 23:- OPERATING SEGMENTS (Cont.)

Consolidated Goodwill in material partially owned subsidiaries:

	December 31,	
	2016	2017
Matrix and its subsidiaries	\$ 185,368	\$ 200,440
Sapiens and its subsidiaries	218,992	303,955
Magic and its subsidiaries	91,002	98,189
Michpal	-	14,688
	\$495,362	\$617,272

b. Reporting on operating segments:

The Company evaluates the performances of each of its directly held subsidiaries based on operating income/loss. Headquarters and finance expenses of Formula are allocated proportionally among the subsidiaries.



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## NOTE 23:- OPERATING SEGMENTS (Cont.)

	Matrix	Sapiens	Magic	Insync	Michpal	Adjustments	Total
Year ended December 31, 2017:							
Revenues from external customers	790,946	269,194	256,207	32,943	5,849	-	1,355,139
Inter-segment revenues	3,679	-	1,933	200	-	(5,812)	-
Revenues	794,625	269,194	258,140	33,143	5,849	(5,812)	1,355,139
Unallocated corporate expenses	-	-	-	-	-	(3,380)	(3,380)
Depreciation and amortization	6,865	21,969	13,611	191	1,018	2	43,656
Operating income (loss)	51,307	(768)	23,974	658	1,063	(3,380)	72,854
Financial income (expense) net							(21,167)
Group's share of profits (losses) of companies accounted for at equity, net							1,124
Taxes on income							(13,371)
Net income							39,440
Year ended December 31, 2016:							
Revenues from external customers	660,012	216,190	198,096	34,323	-	-	1,108,621
Inter-segment revenues	2,578	-	3,550	-	-	(6,128)	-
Revenues	662,590	216,190	201,646	34,323	-	(6,128)	1,108,621
Unallocated corporate expenses	-	-	-	-	-	(2,626)	(2,626)
Depreciation and amortization	6,513	14,079	11,608	245	-	73	32,518
Operating income (loss)	46,220	26,326	17,520	1,060	-	(2,626)	88,500
Financial income (expense) net							(11,586)
Group's share of profits (losses) of companies accounted for at equity, net							349
Taxes on income							(21,163)
Net income							56,100
Year ended December 31, 2015:							
Revenues from external customers	583,661	185,123	174,491	29,919	-	-	973,194
Inter-segment revenues	2,921	-	1,539	-	-	(4,460)	-
Revenues	586,582	185,123	176,030	29,919	-	(4,460)	973,194
Unallocated corporate expenses	-	-	-	-	-	(5,200)	(5,200)

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Depreciation and amortization	6,144	14,127	9,885	280	-	2	30,438
Operating income (loss)	38,421	22,273	19,946	426	-	(5,200 )	75,866
Financial income (expense) net							(9,533 )
Group's share of profits (losses) of companies accounted for at equity, net							5
Taxes on income							(15,984 )
Net income							50,354

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NOTE 24:- SUBSEQUENT EVENTS

i. On January 18, 2018, Matrix acquired 50.1% of the share capital of Alius in the United States for approximately \$3,000, plus an additional \$3,000 to be paid in two years. Matrix and the Seller have a mutual option to sell and purchase the remaining shares within two years following the completion date of the agreement. Alius provides consulting services in the area of regulatory and compliance in the US financial market.

ii. In the first quarter of 2018, Sapiens acquired 100% of Adaptik Corporation (“Adaptik”), by a way of merger between Adaptik and one of Sapiens’ subsidiaries in the US. Adaptik is a New Jersey company engaged in the development of software solutions for P&C insurers, including policy administration, rating, billing, customer management, task management and product design

iii. On January 31, 2018, the Company consummated a private placement to qualified investors in Israel, of an additional, aggregate NIS 150 million par value of Series A Secured Debentures. The aggregate gross proceeds totaled NIS 155,205 (approximately \$45.6 million), excluding issuance costs of \$225. As a result of the private placement, the total outstanding principal amount of the Series A Secured Debentures increased to approximately NIS 239.5 million (approximately \$69.1 million). The terms of the Series A Secured Debentures sold in the private placement are identical in all respects to those of the Series A Secured Debentures sold in the Company’s September 2015 public offering. In accordance with the terms of the indenture related to Series A Secured debentures, Formula pledged additional 1,692,954 shares of Matrix and 3,487,198 shares of Magic.

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**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

**To the Board of Directors and Shareholders of**

**Magic Software Japan K. K.**

We have audited the accompanying statements of financial position of Magic Software Japan K.K. (the “Company”) as of December 31, 2016 and 2017, and the related statements of comprehensive income and cash flows for each of the three years in the period ended December 31, 2017. These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. We were not engaged to perform an audit of the Company’s internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2016 and 2017, and the related statements of comprehensive income and cash flows for each of the three years in the period ended December 31, 2017 in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board.

Tokyo, Japan

February 5, 2018

KDA Audit Corporation

