CAMTEK LTD
Form 20-F
June 30, 2003

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, DC 20549

FORM 20-F

(Mark One)

o Registration statement pursuant to Section 12(b) or (g) of the Securities Exchange Act of 1934

or

x Annual report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

For the fiscal year ended December 31, 2002

or

o Transition report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

For the transition period from _____ to _____

Commission file number 000-30664

Camtek Ltd.

(Exact name of Registrant as specified in its charter)

Israel
(Jurisdiction of incorporation or organization)

Ramat Gavriel Industrial Zone, P.O. BOX 544, Migdal Haemek, Israel
(Address of principal executive offices)

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

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

Ordinary Shares, par value NIS 0.01

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act:
Ordinary Shares, par value NIS 0.01

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:

[27,053,419] Ordinary Shares, par value NIS 0.01

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 Company was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes X No ___

Indicate by check mark which financial statement item the registrant has elected to follow.

Item 17 ___ Item 18 X

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Forward-Looking Statements

Statements in this annual report about our future results, levels of activity, performance, goals or achievements or other future events constitute forward-looking statements. These statements involve known and unknown risks, uncertainties and other factors that may cause actual results or events to differ materially from those anticipated in our forward-looking statements. These factors include, among others, those listed under Risk Factors or described elsewhere in this annual report.

In some cases, one can identify forward-looking statements by our use of words such as may, will, should, could, expects, plans, intends, anticipates, believes, estimates, predicts, seeks, strategy, potential or continue or the negative or other variations of these comparable words or phrases.

Although we believe that the expectations reflected in our forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements or other future events. We are under no duty to update any of our forward-looking statements after the date of this annual report, other than as required by law. One should not place undue reliance on forward-looking statements.

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 Consolidated Financial Data.***

We derived the statement of operations data for the years ended December 31, 2000, 2001 and 2002, and balance sheet data as of December 31, 2001 and 2002 from the audited consolidated financial statements in this annual report. These statements were jointly audited by Goldstein Sabo Tevet and Eisner, LLP, independent auditors, whose report with respect to these financial statements is included elsewhere in the annual report. We derived the statement of operations data for the years ended December 31, 1998 and 1999 and the balance sheet data as of December 31, 1998 and 1999 and 2000 from audited financial statements that are not included in the annual report. Historical results are not necessarily indicative of results to be expected in the future or for the full year.

For all fiscal periods for which consolidated financial data are set forth below, our audited consolidated financial statements are prepared in accordance with accounting principles generally accepted in the United States.

	Year Ended December 31,				
	1998	**1999**	**2000**	**2001**	**2002**

	(In thousands, except per share data)				
Statement of Operations Data:					
Revenues	$20,343	$23,892	$53,125	$44,068	$ 22,593
Cost of revenues	10,095	12,159	24,156	21,651	13,641
Write off - inventory	-	-	-	-	1,805
Gross profit	10,248	11,733	28,969	22,417	7,147
Research and development cost:					
Expenses	3,503	4,307	7,037	9,017	7,194
Acquired in process research and development				3,634	
Less royalty-bearing participations from the Government of Israel	1,177	1,888	2,086	-	-
Research and development costs, net	2,326	2,419	4,951	12,651	7,194
Selling, general and administrative expenses	6,848	7,827	12,310	14,178	11,057
Restructuring expenses				547	-
Operating income (loss)	1,074	1,487	11,708	(4,959)	(11,104)
Financial and other (expenses) income, net	241	(862)	31	1,400	331
Income (loss) before income taxes	1,315	625	11,739	(3,559)	(10,773)
Provision for income taxes			(848)	(152)	(519)
Net income (loss)	$ 1,315	$ 625	$10,891	$ (3,711)	$ (11,292)
Earnings (loss) per ordinary shares outstanding					
Basic	$ 0.09	$ 0.04	$ 0.58	$ (0.17)	$ (0.47)
Diluted	$ 0.08	$ 0.04	$ 0.57	$ (0.17)	$ (0.47)

Weighted average number of shares outstanding:

	Year Ended December 31,				
	1998	**1999**	**2000**	**2001**	**2002**
	(In Thousands, except per share data)				
Basic	15,020	15,226	18,692	22,043	24,166
Diluted	16,494	16,422	19,202	22,043	24,166

	December 31,				
	1998	**1999**	**2000**	**2001**	**2002**
	(in thousands)				
Balance Sheet Data:					
Cash and cash equivalents	$ 328	$ 538	$ 9,793	$ 7,029	$ 2,898
Working capital (deficiency)	12	(304)	45,492	34,852	30,197

Total assets	12,915	18,613	65,727	61,254	48,948
Total debt	6,854	8,479	931	4,816	39
Shareholders equity	2,420	3,389	49,770	46,021	40,316

B. ***Capitalization and Indebtedness*.**

Not applicable.

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

Not applicable.

D. ***Risk Factors.***

There is a high degree of risk associated with our company and business. If any of the following risks occur, our business, operating results and financial condition could be materially adversely affected and the trading price of our ordinary shares could decline.

Risk Factors Related to Our Business.

The main market we serve, the printed circuit board industry, is currently experiencing a prolonged and severe downturn, and it is difficult to predict the length of the downturn or the timing or strength of a recovery.

Historically, we derived most of our revenues, and we expect to continue to derive a majority of our revenues from sales of our Automated Optical Inspection, or AOI, systems and related services for the printed circuit board industry. Our business depends in large part upon capital expenditures by printed circuit board manufacturers, which in turn depend upon the current and anticipated demand for products using printed circuit boards. The printed circuit board industry is experiencing a prolonged and severe downturn. As a result, the overall rate of capital spending by printed circuit board manufacturers has been sharply cut, and sales of our products to these manufacturers have declined. As a result of the general economic decline, we have provided some of our customers with extended payment cycles. Consequently, we have experienced longer accounts receivable payment cycles. If any of our customers becomes insolvent or has difficulties meeting its financial obligations to us, we may suffer additional losses.

Furthermore, many of our customers are currently experiencing a period of excess capacity and are not purchasing new AOI systems, and it is not clear how long after a recovery in sales of printed circuit boards begins, demand for our AOI systems will start to grow. We cannot predict the length of the downturn or the timing or strength of a recovery. If this downturn continues, our sales will continue to be low and may decrease further. In addition, we have only a limited ability to reduce expenses during any period of a downturn in demand because of the need for significant ongoing expenditures related to engineering, research and development and worldwide customer service and support operations. Accordingly, we may incur further losses.

In 2002, we entered two new markets: the semiconductor packaging industry and the microelectronics industry. If these markets fail to grow or if our products are not accepted in these markets, our results of operations will be adversely affected.

In the beginning of 2002, we began sales of products for the inspection of high density interconnect substrates, or HDI-S, to serve the semiconductor packaging industry and for the inspection of wafers, which are silicon disks from which individual chips are diced, to serve the microelectronics industry. The rate of our future success in these markets depends on the development and rate of growth of the market for intelligent optical inspection technology in these industries and on the acceptance of our products. The markets for intelligent optical inspection systems in the semiconductor packaging and the microelectronics industries are new and may not develop at the rate we expect, whether as a result of the continuing economic downturn, competition, alternative technologies, changes in technology, changes in product standards or otherwise. If widespread acceptance of intelligent optical inspection technology does not develop in these industries, our success will be adversely affected. Furthermore, our sales depend upon the adoption of our products by manufacturers in these industries. The adoption of our new products often involves long evaluation periods in which the manufacturers and we jointly define the manufacturers needs and customize our products accordingly. This process increases our costs and may affect the profitability of our new products. Ultimately, if these markets do not develop or grow or if manufacturers do not find our products to be appropriate for their use, our future sales could suffer.

We operate an international sales organization. Recently, the majority of our sales have been to manufacturers in East Asia. The concentration of sales within a particular geographical region involves specific risks.

In 2002, our total sales declined on an absolute basis in all geographic markets; however, the relative significance of the geographic markets as a percentage of our total sales has continued to shift from Europe and the United States to East Asia, principally China and Taiwan. In 2002, our sales to customers in East Asia accounted for approximately 80% of our total revenues, including approximately 40% from sales in China and 26% from sales in Taiwan. Changes in local legislation or in governmental controls and regulations, changes in tariffs and taxes, political instability, trade restrictions, a downturn in economic or financial conditions, as well as any extraordinary events having an adverse effect on the economy or business environment in this region, such as the spread of the SARS epidemic, may cause a significant decline in our future revenues and have an adverse affect on our results of operations.

Technology in the markets in which we operate is rapidly evolving, and we may not be able to keep pace with these changes or with emerging industry standards. This could result in a loss of revenues.

The markets for our products are characterized by changing technology, evolving industry standards, changes in end-user requirements and new product introductions. Potential new technologies and improvements to existing production equipment and methods could improve production yields, thereby lowering the cost-benefit equation currently justifying the use of our products in these industries. In addition, new technologies could emerge as alternatives to using our products.

Our future success will depend on our ability to enhance our existing products and to develop and introduce new technologies for intelligent optical inspection of printed circuit boards, HDI-S and wafers. These products and features must keep pace with technological developments and address the increasingly sophisticated needs of our customers. Our failure to keep pace with technological changes, with products offered by our competitors and with emerging industry standards could damage our reputation and adversely affect our ability to attract new business and generate revenues.

The markets we serve are highly competitive, there is a dominant market participant for AOI systems for the printed circuit boards industry and some of our competitors have greater resources, which may make it difficult for us to maintain profitability.

Competition in the markets we serve is intense. Competition has increased further due to the continuing low demand for the type of products that we manufacture, resulting from the general economic downturn. If this trend continues, it could mean lower prices for our products, reduced demand for our products and a corresponding reduction in our ability to recover development, engineering and manufacturing costs. In addition, there is a growing market of used AOI systems for sale, and this, in turn, may reduce the demand for our products and force us to lower our prices in certain cases. If we have to lower prices to remain competitive and are unable to reduce our costs to offset price reductions or are unable to introduce new higher performance products with higher prices, our operating results may be seriously harmed.

Competitors currently sell products that provide similar benefits to those that we sell. Our principal direct competitor in the sale of AOI systems for the printed circuit board industry is Orbotech Ltd., an Israeli company, which currently commands a substantial majority of the market for AOI systems and services for printed circuit board manufacturers. We also compete against other companies in the semiconductor packaging and the microelectronics industries. Some of our primary competitors in the semiconductor packaging industry are Orbotech Ltd., Robotic Vision Systems, Inc., and Utechzone Co. Ltd. Some of our primary competitors in the microelectronics industry are August Technology Corporation and Robotic Vision Systems, Inc.

Some of our competitors, most notably Orbotech, have greater financial, personnel and other resources, offer a broader range of products and services than we do and may be able to respond more quickly to new or emerging technologies or changes in customer requirements, develop additional or superior products, benefit from greater purchasing economies, offer more aggressive pricing or devote greater resources to the promotion of their products.

If we are not able to protect our proprietary technology, we may not be able to compete effectively.

We differentiate our products and technologies through the use of our proprietary software, our image processing algorithms and the integration of our advanced hardware components. We rely on a combination of copyrights, trade secrets, patents, trademarks, confidentiality and non-disclosure agreements to protect our proprietary know-how and intellectual property, including both hardware and software components of our products. These measures may not be adequate to protect our proprietary technology, and it may be possible for a third party, including a competitor, to copy or otherwise obtain and use our products or technology without authorization or to develop similar technology independently. Additionally, our products may be sold in foreign countries that provide less protection to intellectual property than that provided under U.S. or Israeli laws.

Our products may infringe on the intellectual property rights of others, which could result in claims against us.

Third parties may assert claims that we have violated patents or that we have infringed upon their intellectual property rights. Intellectual property claims have been asserted against us in the past and may be asserted against us in the future. Any intellectual property claims against us, even if without merit, could cost us a significant amount of money to defend and divert management s attention away from our business.

If one or more of our third-party suppliers or subcontractors do not provide us with key components or subsystems, then we may not be able to deliver our products to our customers in a timely manner and we may incur substantial costs to obtain these components from alternate sources.

Currently, we rely on single source and limited source suppliers and subcontractors for a number of essential components and subsystems of our products. We have not signed agreements with all of these suppliers and subcontractors for the continued supply of the components or subsystems they provide. An interruption in supply from these sources or an unexpected termination of the manufacture of key components or subsystems would, therefore, disrupt production and adversely affect our ability to deliver products to our customers. An unexpected termination of supply would require an investment in capital and manpower resources in order to shift to other suppliers and might cause a significant delay in introducing replacement products since we do not develop and supply these components and subsystems in-house.

We depend on a few large orders, and the inability to generate those orders in any given period could have a disproportionate impact on our revenue.

Historically, a substantial portion of our revenue has come from large purchases by a small number of customers. For example, in 2000, three customers accounted for about 12.4% of our total revenues, in 2001, two customers accounted for about 10.0% of our total revenues and in 2002 two customers accounted for about 14.1% of our total revenues. Based on our experience, we expect that the identity of our customers may change from period to period. We have not entered into long-term agreements with any of our large customers nor have we secured commitments to purchase any specific quantities of our products from any of our customers. If we do not receive large orders from customers in any given period, we may not be able to meet our sales expectations for that period.

Due to fluctuations in foreign exchange rates, the prices of our products may become less competitive or we may incur additional expenses.

Foreign currency fluctuations may affect the prices of our products. Our prices in most countries outside of Europe are denominated in dollars. In those countries, if there is a significant devaluation in the local currency as compared to the dollar, the prices of our products will increase relative to that local currency and may be less competitive. In 2002, we derived approximately 10% of our revenues from customers in Europe where our prices are mainly denominated in euros. A devaluation of the Euro as compared to the dollar can cause our revenues to decrease in dollar terms. If a larger number of our sales were to be denominated in currencies other than dollars, our reported revenue and earnings would be subject to a greater degree of foreign exchange fluctuations.

We may experience fluctuations in our future operating results which make it difficult to predict future results.

Our revenues and net income, if any, in any particular period may be lower than revenues and net income, if any, in a preceding or comparable period. This complicates our planning processes and reduces the predictability of our earnings. Period-to-period comparisons of our results of operations may not be meaningful, and you should not rely upon them as indications of our future performance.

Our quarterly results of operations may be subject to significant fluctuations due to the following factors:

- the cyclical nature of the electronics industry;
- the size, timing and shipment of orders;
- customer budget cycles and installation schedules;
- product introductions;
- the timing of new product upgrade or enhancement announcements; and
- interest and exchange rates.

For example, the introduction of new products or new versions of existing products for the same market segment in the past often resulted in a decline in the sales of our older products and product versions.

We depend on a limited number of key personnel with particular knowledge of the industries in which we operate and technologies we develop who would be difficult to replace.

Our continued growth and success largely depends on the managerial and technical skills of the members of our senior management and on our ability to recruit and retain highly skilled technical, manufacturing, managerial, financial and marketing personnel. The labor market in which we operate is competitive during periods of economic growth, and, as a result, we may not be able to retain and recruit key personnel during such periods. In particular, we may find it difficult to hire key personnel with the requisite knowledge of our business, products and technologies. Our failure to hire, retain, or adequately train key personnel could have a negative impact on our performance.

In the event of an economic recovery, we may encounter difficulties in expanding our operations and purchasing key components and subsystems to meet increased customer demand.

In the event of an economic recovery, our operations will have to expand in order to meet increasing customer demands. Our growth will depend in large part on our ability to manage our expanding operations and may place a significant strain on our engineering, technical, administrative, operational, financial and marketing resources, as well as increased demands on our systems and controls. If we expand our operations, we believe that we will need to promote and hire qualified engineering, administrative, operational, financial and marketing personnel. During periods of economic growth, competition for qualified engineering and technical personnel is intense. There are a limited number of persons with the requisite knowledge and experience in our business, products and other necessary technology areas. The process of locating, training and successfully integrating qualified personnel into our operations can be lengthy and expensive. We may not be successful in attracting, integrating and retaining those new employees. Also, in the event of an economic recovery, our suppliers and subcontractors may be unable to meet our increased demand for key components and subsystems.

Our inability to satisfy any increase in customer orders could result in the loss of customers or could cause customers to seek alternative sources for products. Our inability to expand our operating and financial control systems, recruit and hire necessary personnel, successfully integrate new personnel into our operations, or purchase key components could adversely affect our ability to grow and to respond to any economic recovery.

Priortech Ltd. has substantial control over most matters submitted to a vote of our shareholders, thereby limiting your power to influence corporate action.

Priortech Ltd., formerly PCB Ltd., beneficially owns 77.8% of our issued and outstanding ordinary shares. As a result, Priortech has the power to control the outcome of most matters submitted to a vote of shareholders, including the election of members of our board and the approval of significant corporate transactions. This concentration of ownership may also have the effect of making it more difficult to obtain approval for a change in control of Camtek. The equity interest of Priortech will make it impossible to obtain shareholder approval without Priortech s consent on matters requiring shareholder approval. Messrs. Rafi Amit, Yotam Stern and Itzhak Krell control Priortech and may be deemed to control us.

Our relationship with Priortech Ltd. may give rise to conflicts of interest.

From time to time, we use services and products of other companies owned or controlled by Priortech, which may create a conflict of interest. Although Israeli law imposes procedural requirements, like obtaining special approvals, in order to approve extraordinary interested party transactions, we cannot be certain that those procedures will eliminate the possible detrimental effects of any of these potential conflicts of interest. In addition, pursuant to their employment agreements with us, Mr. Rafi Amit, our general manager, and Mr. Yotam Stern, our Executive Vice President, Business and Strategy, may each spend up to 20% and 25% of their time, respectively, working for Priortech and other entities in the Priortech group.

Our operating results could be negatively impacted if we are unable to obtain the necessary resources to maintain our operations and invest in our future.

Although the markets we serve are currently in a downturn, we need to maintain our current operations and to prepare for any potential recovery in these markets by continuing to invest in certain areas of our business. These investments require us to use existing cash reserves to fund our research and development activities, to fund the development of new products and to respond to unanticipated developments, increasing customer demands or competitive pressures.

As of March 31, 2003, our cash reserves were at a level of approximately $14.2 million. If our cash reserves, together with cash available under our credit facility, are insufficient to meet our cash requirements, we will need to seek alternative sources of financing to carry out our operating strategies. We may not be able to raise needed cash or we may not be able to do so on terms that are acceptable to us. Additional financing may be on terms that are dilutive or potentially dilutive to existing shareholders. In addition, the current economic environment and political climate in Israel may make it more difficult for us to obtain financing. In August 2002, we raised approximately $6.1 million in a rights offering of ordinary shares to our then existing shareholders. Our cash reserves and cash available under our credit facility may not be sufficient for our long-term needs. If we are not able to find alternative sources of financing that are sufficient to meet our cash requirements, we may need to modify our operating plans to the extent of available resources.

Our share price has been volatile in the past and may continue to decline in the future.

Our ordinary shares have experienced significant market price and volume fluctuations in the past and may experience significant market price and volume fluctuations in the future in response to factors such as the following, some of which are beyond our control:

- quarterly variations in our operating results;
- operating results that vary from the expectations of securities analysts and investors;
- changes in expectations as to our future financial performance, including financial estimates by securities analysts and investors;
- announcements of technological innovations or new products by us or our competitors;
- announcements by us or our competitors of significant contracts, acquisitions, strategic partnerships, joint ventures or capital commitments;
- changes in the status of our intellectual property rights;
- announcements by third parties of significant claims or proceedings against us;
- additions or departures of key personnel;
- future sales of our ordinary shares; and
- stock market price and volume fluctuations.

Domestic and international stock markets often experience extreme price and volume fluctuations. Market fluctuations, as well as general political and economic conditions, such as a recession or interest rate or currency rate fluctuations or political events or hostilities in or surrounding Israel, could adversely affect the market price of our ordinary shares.

In the past, securities class action litigation has often been brought against a company following periods of volatility in the market price of its securities. We may in the future be the target of similar litigation. Securities litigation could result in substantial costs and divert management s attention and resources.

Our shares are listed for trade on more than one stock exchange, and this may result in price variations.

Our ordinary shares are listed for trade on the Nasdaq SmallCap Market and on the Tel Aviv Stock Exchange, and this may result in price variations. Our ordinary shares are traded on these markets in different currencies (U.S. dollars on the Nasdaq and New Israeli Shekels, or NIS, on the Tel Aviv Stock Exchange). These markets have different opening times and close on different days. Different trading times and differences in exchange rates, among other factors, may result in our shares being traded at a price differential on these two markets. In addition, market influences in one market may influence the price at which our shares are traded on the other.

The listing of our ordinary shares was transferred from The Nasdaq National Market to The Nasdaq SmallCap Market in February 2003. The Israeli Securities Authority s current position is that, following the transfer of our ordinary shares to the Nasdaq SmallCap Market, we are required to provide disclosure in Israel in accordance with the provisions of Chapter F of the Israeli Securities Law, 1968 (similar to the requirements of a company listed only on the Tel Aviv Stock Exchange). Based on the advice of our Israeli legal counsel, we believe that, notwithstanding the transfer of our ordinary shares to the Nasdaq SmallCap Market, we may continue to report in accordance with the provisions

of Chapter E3 of the Securities Law, which does not impose on us the burden of reporting under two different sets of disclosure rules and requirements. The Israeli Securities Authority may order the Tel Aviv Stock Exchange to halt the trade in our ordinary shares if we do not provide disclosure in Israel in accordance with the provisions of Chapter F of the Securities Law.

We may be classified as a passive foreign investment company and, as a result, our U.S. shareholders may suffer adverse tax consequences.

Generally, if for any taxable year 75% or more of our gross income is passive income, or at least 50% of our assets are held for the production of, or produce, passive income, we may be characterized as a passive foreign investment company, or PFIC, for U.S. federal income tax purposes. Our passive income would not include income derived from the sale of our products but would include amounts derived by reason of the temporary investment of any cash amounts. This characterization could result in adverse U.S. tax consequences to our shareholders, including having gain realized on the sale of our shares be treated as ordinary income, as opposed to capital gain income, and having potentially punitive interest charges apply to such sales proceeds. U.S. shareholders should consult with their own U.S. tax advisors with respect to the U.S. tax consequences of investing in our ordinary shares.

We believe that in 2002 we were not a PFIC. However, there can be no assurance that the U.S. Internal Revenue Service will not challenge the calculations we used in determining that we were not a PFIC in 2002. We currently expect that we will not be a PFIC in 2003. However, PFIC status is determined as of the end of the taxable year and is dependent on a number of factors, including the value of a corporation s assets and the amount and type of its gross income. Therefore, there can be no assurance that we will not become a PFIC for the current fiscal year ending December 31, 2003 or in a future year. For a discussion of how we might be characterized as a passive foreign investment company and related tax consequences, please see the section of this annual report entitled Taxation U.S. Federal Income Tax Considerations - Tax Consequences if we are a Passive Foreign Investment Company.

Risks relating to our operations in Israel

Conducting business in Israel entails special risks.

We are incorporated under the laws of, and our principal offices are located in, the State of Israel. We are directly influenced by the political, economic and military conditions affecting Israel. Our product development depends on components imported from outside of Israel. A majority of our sales occur outside of Israel. We could be adversely affected by:

- any major hostilities involving Israel;
- a full or partial mobilization of the reserve forces of the Israeli army;
- the interruption or curtailment of trade between Israel and its present trading partners;
- a significant increase in inflation; and
- a significant downturn in the economic or financial condition of Israel.

Since September 2000, there has been a marked increase in violence, civil unrest and hostility, including armed clashes, between the State of Israel and the Palestinians, and acts of terror have been committed inside Israel and against Israeli targets in the West Bank and Gaza. Since 2002, there has been a significant escalation in armed clashes between Israel and the Palestinians, and Israel has undertaken military actions in Palestinian controlled areas. There is no indication how long the current hostilities will last or whether there will be any further escalation. Any further escalation in these hostilities or any future armed conflict, political instability or violence in the region may have a negative effect on our business condition, harm our results of operations and adversely affect our share price. There are a number of countries that restrict business with Israel or Israeli companies. Restrictive laws or policies directed towards Israel or Israeli businesses and civil unrest, military conflict and uncertainty may have an adverse impact on our operating results, financial condition or the expansion of our business.

Our operations could be disrupted as a result of the obligation of key personnel in Israel to perform military service.

Many of our officers and employees in Israel, including certain key employees, are obligated to perform annual reserve duty in the Israeli army and are subject to being called up for reserve duty at any time. The absence of one or more of our officers and key employees for significant periods of time due to military service could be disruptive to our operations. Although we have effectively operated under these conditions since our inception, there has not been a full mobilization of the Israeli army during such time, and a full mobilization will likely have an adverse effect on our operations. We cannot predict the effect these obligations may have on us in the future.

The Israeli rate of inflation may negatively impact our costs if it exceeds the rate of devaluation of the NIS against the U.S. dollar.

We generate most of our revenues in dollars but we incur the majority of our salary and operating expenses in NIS. As a result, we bear the risk that the rate of inflation in Israel will exceed the rate of devaluation of the NIS in relation to the dollar, which will increase our costs expressed in dollars.

The government programs and tax benefits in which we participated in the past and in which we currently participate or from which we receive benefits, require us to meet several conditions. These programs or benefits may be terminated or reduced in the future, which could increase our costs.

Since our inception, we had relied on government grants for the financing of a significant portion of our product development expenditures. Until March 2001, we received grants and we participated in programs sponsored by the Government of Israel through the Ministry of Industry and Trade, Office of the Chief Scientist. In March 2001, we made an arrangement with the Chief Scientist whereby we have to repay the outstanding balance of the grants we received, not including grants received by Inspectech Ltd. prior to its merger into us, at a quarterly rate equal to 4.5% of the revenues derived in connection with products we developed as a result of research and development funded by Chief Scientist participations, up to a the maximum amount of $250,000 per quarter. We have not received any additional grants from the Office of the Chief Scientist since 2000. As of December 31, 2002, the outstanding balance of the grants was approximately $1.08 million, of which $950,000 was due as of such date, including grants received by Inspectech prior to its merger into us. We continue to benefit from government programs and tax benefits, particularly as a result of the Approved Enterprise status of our existing facilities. To be eligible for these programs and tax benefits, we must continue to meet certain conditions, including:

- making investments in fixed assets, the amount of which varies depending on the program approved by the Government of Israel;
- financing at least 30% of the investment for the Approved Enterprise with share capital; and
- receiving revenues from the Approved Enterprise.

The tax benefits could be cancelled, and we may be required to refund the tax benefits already received if we fail to meet these conditions in the future. These programs and tax benefits may not be continued in the future at their current levels or at any level or our requests for future participation in these programs may not be approved. In August 2002, the Israeli legislature enacted new legislation adopting tax reforms. The new legislation does not reduce the benefits we receive as a result of our Approved Enterprise status.

Pursuant to the law governing the Israeli government s participation in research and development programs through the Office of the Chief Scientist, the technology developed with government grants may not be transferred outside of Israel, and may be transferred within Israel only with the approval of a special governmental committee. The manufacture outside of Israel of products developed with government grants is also allowed only with the approval of a special governmental committee. However, if such approval is granted, we would be required to pay royalties at a higher royalty rate and an increased aggregate pay back amount in proportion to manufacturing performed outside of Israel. This could result in our being required to repay up to three times the amount of our original grant. An amendment to the law governing the Israeli government s participation in research and development programs through the Office of the Chief Scientist was enacted in November 2002 and it entered into effect on April 1, 2003. However, the amendment did not introduce any relief with respect to the restrictions on the transfer out of Israel of the technology developed with government grants or with respect to the restrictions on the manufacture outside of Israel of products developed with government grants. The restriction regarding the transfer of technology out of Israel or the lack of approval by the special governmental committee with respect to the transfer of manufacturing out of Israel could have a material adverse effect on our ability to enter into strategic alliances in the future that provide for the transfer of manufacturing rights.

It may be difficult to enforce a U.S. judgment against us, our officers and directors and some of the experts named in this prospectus or to assert U.S. securities law claims in Israel.

We are incorporated in Israel. Substantially all of our executive officers and directors and our Israeli accountants and attorneys, are nonresidents of the United States, and a substantial portion of our assets and the assets of these persons are located outside the United States. Therefore, it may be difficult to enforce a judgment obtained in the United States against us or any of these persons. Additionally, it may be difficult for you to enforce civil liabilities under U.S. Federal Securities laws in original actions instituted in Israel.

The effects of anti-takeover provisions could inhibit the acquisition of us by others.

Some of the provisions of our articles of incorporation and of Israeli law could, together or separately

discourage potential acquisition proposals;

delay or prevent a change in control; and

limit the price that investors might be willing to pay in the future for our ordinary shares.

We are subject to Israeli corporate law. Generally, under Israeli corporate law, a merger (1) if effected within the framework of an arrangement, is subject to approval by the court and a majority of shareholders present and voting on the proposed merger, holding at least 75% of the shares represented at the shareholders meeting and a similar majority at the creditors meeting; or (2) if effected not within the framework of an arrangement, must receive the approval of the board of directors and shareholders of both merging companies, and can be consummated only after 70 days have passed from the date the merger proposal was filed with the Registrar of Companies. Additionally, a tender offer for our shares, or the acquisition of the interests of our minority shareholders, may be subject to the requirements of Israeli corporate law. The requirements of Israeli corporate law generally make these forms of acquisition significantly more difficult than under United States corporate laws.

Israeli tax law treatment for acquisitions, like stock-for-stock exchanges between an Israeli company and a foreign company, may be less favorable than the treatment that may be available under U.S. tax law. Israeli tax law may, for instance, subject a shareholder who exchanges shares in us for shares in a foreign corporation to immediate taxation.

In addition, our technology developed pursuant to the terms of the Law for the Encouragement of Industrial Research and Development, 1984 may not be transferred to third parties outside of Israel, and may be transferred within Israel only with the approval of the a special governmental committee. This approval is not required for the export of any products resulting from that research and development. Approval for the transfer within Israel of technology developed with government grants may be granted only if the recipient abides by all of the provisions of the research law and its regulations, including the restrictions on the transfer of know-how, the obligation to manufacture in Israel and the obligation to pay royalties at variable rates. These requirements could inhibit the acquisition of us by others. There can be no assurance that this consent, if requested, will be granted. An amendment to this law was enacted in November 2002 and it entered into effect on April 1, 2003. However, the amendment did not introduce any relief with respect to the restrictions on the transfer out of Israel of the technology developed with government grants.

Item 4. Information on the Company.

A. *History and Development of the Company*

We were incorporated under the laws of Israel in 1987. During our first years of operation, we were engaged in the development, production and marketing of a manual optical inspection system for the detection of manufacturing defects in printed circuit boards. In 1992, Priortech purchased all of our shares then held by Camtek Corp. N.V., and became the holder of a controlling interest of 66 $^{2}/_{3}$% in us. In April 1996, Priortech purchased all of the remaining shares of Camtek, and Camtek became a wholly owned subsidiary of Priortech.

In July 2000, we sold 5,600,000 ordinary shares in an initial public offering in which we received net proceeds of $34.5 million. In August 2000, we sold an additional 235,000 ordinary shares following the exercise of the underwriters over-allotment option in which we received an additional $1.5 million in net proceeds. In August 2002, we sold 5,926,730 ordinary shares in a rights offering of ordinary shares to our then existing shareholders (of which 5,922,228 were sold to Priortech Ltd.), in which we received net proceeds of $6.1 million. Our shares began trading on the Nasdaq National Market in July 2000. In February 2003, the listing of our shares was transferred from the Nasdaq National Market to the Nasdaq SmallCap Market. Since December 2001, our ordinary shares have also been listed for trade on the Tel Aviv Stock Exchange.

In September 2001, we acquired all the outstanding shares of Inspectech Ltd., a developer and producer of intelligent automatic inspection systems for the microelectronics industry for an aggregate purchase price of $2,250,000, and in December 2001, Inspectech was merged with us. In the second half of 2001, we relocated to our new facilities and reorganized along three product divisions for the printed circuit boards industry, the semiconductor packaging industry and the microelectronics industry. During the fourth quarter of 2002, we consolidated the product division for the semiconductor packaging industry and the product division for the microelectronics industry into one unified product division the Microelectronics Packaging (MEP) Division.

Our principal executive offices are located at our new facilities in Ramat Gavriel Industrial Zone, P.O. Box 544, Migdal Haemek 23150, Israel, and our telephone number is 011-972-4-604-8111. Our agent for service of process in the United States is Camtek USA, Inc., located at 2 Meridian Road, Eatontown, New Jersey 07724. Our website is located at www.camtek.co.il. The information on our website is not incorporated by reference into this annual report.

B. ***Business Overview.***

For discussion of capital expenditures and divestitures, see Item 5- Operating and Financial Review and Prospects- Liquidity and Capital Resources.

Our Business

We design, develop, manufacture, and market technologically advanced and cost-effective, intelligent optical inspection systems and related products, used to enhance both process and yields for the printed circuit board, semiconductor packaging and microelectronics industries. Camtek has been a public company since 2000, with headquarters in Migdal Ha Emek, Israel and subsidiaries in the United States, Europe, Japan, and East Asia.

The following table shows our revenue classified by geographical segments for each of the last three financial years

	Year Ended December 31,		
	2000	2001	2002
		(in thousands)	
United States	$ 10,940	$ 8,235	$ 2,020
Europe	8,788	7,796	2,162
Japan	4,791	2,845	1,332
Taiwan	6,372	5,763	5,956
China	9,589	12,648	9,041
Korea	5,045	1,685	968
Singapore	3,718	864	202
Canada	2,416	1,519	190
Other Asia	540	1,410	681
Rest of the world	926	1,303	41
Total	$ 53,125	$ 44,068	$ 22,593

We believe that our products offer customers a high level of intelligent optical inspection and competitive price performance, thereby enhancing their production yields and processes. Our products incorporate proprietary advanced software, as well as advanced electro-optics, precision mechanics and image processing technology. Our products are designed for easy operation and maintenance, which, we believe, allows for relatively short training time.

Priortech, our parent company, through its affiliated companies, engages in various aspects of electronic packaging, including the assembly of printed circuit boards and the development of advanced substrates, which are intermediate components connecting the chip to the printed circuit board. Priortech is also one of the largest manufacturers of printed circuit boards in Israel, based on 2000, 2001 and 2002 sales. We have worked closely with Priortech and its affiliated companies and have utilized their facilities to develop, modify and test, during the manufacturing process, our Automated Optical Inspection, or, AOI systems for the printed circuit board industry and our products for the semiconductor packaging industry. This relationship has provided us with insights into the needs of our customers and has enabled us to develop and refine our products and technology with a customer orientation.

Products

We have historically designed, developed, manufactured and marketed technologically advanced and cost-effective AOI systems and related products used to detect defects in printed circuit boards during the manufacturing process. These printed circuit boards are bare, meaning that they have not yet been populated by chips or other components. AOI systems are used to ensure the quality of printed circuit boards and enhance production yield for printed circuit board manufacturers.

More recently, we also began to manufacture and market our intelligent optical inspection systems for the inspection of high density interconnect substrates, or HDI-S, used in the packaging of sensitive high density semiconductor devices at various stages of production. HDI-S are intermediate components connecting the chip to the printed circuit board and are more dense and complex than the printed circuit board.

In addition, following the acquisition of Inspectech Ltd. in 2001, we also design, develop, manufacture and market intelligent optical inspection systems for the microelectronics industry. These products inspect wafers, which are silicon disks from which individual chips are diced. When we acquired Inspectech, its range of products included three systems, the Kerf Inspection System (KIS) for the detection and analysis of defects caused during the dicing process, the Bump Inspection System (BIS) for the inspection of surface defects and the inspection and measurement of bumps on wafers and the Wafer Inspection System (WIS) for wafer surface inspection at different stages of the dicing process. Two of these systems, the BIS and the WIS, were still under development at the time of the acquisition. Following the acquisition, we completed the development of these systems and sold several of them to customers. Simultaneously, we invested extensive research and development efforts to further develop the core technology on which these systems were based. As a result of these efforts, we are currently in the final stages of development of two new systems the Falcon and the Gemini, which will replace the BIS and the WIS systems, respectively. The new systems deliver significantly higher throughput both in surface defect detection and in 2D and 3D metrology, and will be introduced to the market during the second half of 2003. Therefore, we recently decided to discontinue the marketing of the BIS and WIS Systems. In order to reduce costs, during the fourth quarter of 2002, we consolidated our product division for the semiconductor packaging industry (the HDI-S Product Division) and our product division for the microelectronics industry (the ME Products Division), into one unified product division the Microelectronics Packaging (MEP) Division.

The following table describes our current product line and some of our products under development:

Product	Target Market	Functionality
PCB Product Division		
Orion Product Line	Manufacturers of high-end printed circuit boards	Inspection and verification of printed circuit boards
Vega System	High-volume manufacturers of high-end printed circuit boards who require unattended operation	Unattended inspection of printed circuit boards
Lynx System	Manufacturers of high-end, back-plane printed circuit boards	Inspection and verification of printed circuit boards
Sirius System	Manufacturers of high-end printed circuit boards that require offline verification	Offline verification of printed circuit boards
Dragon System	Mass production manufacturers of high-end printed circuit boards that require unattended operation	High-speed unattended inspection of printed circuit boards
MEP Product Division Systems for the Semiconductor Packaging Industry		
Pegasus FI-S System	Manufacturers of HDI-S	High-speed surface inspection of both sides of HDI-S
Phoenix System	Manufacturers of high-end HDI-S packages	Surface inspection and 2D and 3D metrology of counter-bumps surface defects and inspection and measurement of bumps.

Orion Fine Line System (formerly Orion ASI System)	Manufacturers of HDI-S and manufacturers of very dense and complex printed circuit boards	Inspection of HDI-S and very dense and complex printed circuit boards
MEP Product Division Systems for the Microelectronics Industry		
KIS System	Manufacturers of semiconductors	Inspection of wafer dicing
Falcon System	Manufacturers of semiconductor wafers and bumping service providers	Inspection of surface defects and 2D and 3D metrology of wafers in their final manufacturing stages.
Gemini System	Manufacturers of semiconductor devices and providers of semiconductor packaging services	Inspection of surface defects and 2D and 3D metrology of frame-mounted wafers before or after dicing.

AOI Systems for the Printed Circuit Board Industry.

Our AOI systems for the printed circuit board industry utilize technology that enables the customer to handle a wide range of sophisticated printed circuit board inspection and verification needs. Advanced proprietary software algorithms designed for intelligent feature recognition provide for a high level of defect detection and are programmed to run on special imaging processing hardware as well as very high speed processors. Our AOI systems can be used with various software applications that we offer.

We believe that the modular design of our AOI systems for the printed circuit board industry, their high level of defect detection and our flexible price structure enable printed circuit board manufacturers to plan their investments in AOI systems incrementally in accordance with their increasing technological needs, throughput and capacity needs.

The Orion Product Line

Our Orion AOI systems for the printed circuit board industry scan printed circuit board panels for defects for verification by an operator. The Orion AOI systems utilize technology that enables customers to handle a wide range of sophisticated printed circuit board inspection and verification needs as well as high and low densities and resolutions. The market for our Orion AOI systems consists of the whole range of low-volume to high-volume manufacturers of high-end printed circuit boards.

The Vega System

The Vega AOI systems for printed circuit board manufacturers use the same detection technology as our Orion AOI system. The Vega is an automatic and unattended system that uses automated material handling of printed circuit board panels. The Vega systems have a high throughput and a wide resolution scanning range. We market the Vega systems to high-volume manufacturers of high-end printed circuit boards who require unattended operation.

The Lynx System

Formerly called the Orion 1004, the Lynx system is an inspection system for large format panels and back-planes. The Lynx system uses the same detection technology as our Orion AOI systems. We market the Lynx system to manufacturers of high-end back-plane printed circuit boards.

The Sirius System

The Sirius system, our stand-alone verification and repair station, provides offline verification of printed circuit boards and is used after the boards have been inspected by one of our other AOI systems. We market the Sirius system to manufacturers of high-end printed circuit boards that require offline verification.

The Dragon System

The Dragon system is a high-speed automatic inspection system that delivers enhanced throughput and detection ability for the fine line technology industry. We will market the Dragon system to mass production manufacturers of high-end printed circuit boards that required unattended operation.

MEP Product Division Systems for the Semiconductor Packaging Industry

Our intelligent optical inspection systems for the semiconductor packaging industry inspect HDI-S, and increase both yields and throughput of HDI-S manufacturers. These systems utilize proprietary technologies that enable the customer to handle a wide scope of HDI-S packaging inspection and verification needs. These systems use advanced software algorithms that are designed for intelligent feature recognition and provide a high level of defect detection.

The Pegasus FI-S System

Our Pegasus FI-S system performs automatic optical inspection of surface defects found on both sides of the HDI-S, the side which attaches to the chip and the side which attaches to the printed circuit board where ball-grid array, or BGA, strips are found. BGA strips are high-density packages that use an array of solder balls, or joints that provide the contact between the grid package and the printed circuit board, in a grid pattern to mount chips on printed circuit boards. The Pegasus FI-S system uses an automatic material handling system for unattended operation. It scans the substrates after the completion of the manufacturing process and then analyzes the acquired images for defects. The Pegasus FI-S system employs self-learning routines and statistical methods to enhance detection accuracy and reduce false alarms. HDI-S that require verification may be scanned on our Pegasus Verification Station. We market the Pegasus FI-S system to high volume manufacturers of high-end HDI-S.

The Phoenix System

Our Phoenix system is still under development. We currently expect that it will be introduced to the market in the second half of 2003. The Phoenix system performs intelligent optical inspection on flip-chip BGA packages with counter bumps on their pads and is based on the technology acquired from Inspectech Ltd. The Phoenix system is used for flip chip BGA technology, a technique used to attach the bumps on a chip to the bumps on a substrate by flipping the chip on to the substrate. The Phoenix system is capable of handling most complex substrate devices, including substrates with a high number of contact points. The Phoenix system performs substrate metrology measurements and records bump dimension and shape. The Phoenix system also scans the substrate surface for detection of surface defects, and, using user-determined parameters, marks out rejected units. The Phoenix system helps enhance yields in the package manufacturing stage. We will market the Phoenix system to manufacturers of integrated circuit packages.

The Orion Fine Line System

Formerly called the Orion ASI system, the Orion Fine Line system is based on the detection technology of the Orion AOI system and adds a new high-resolution optical system. The Orion ASI system is used to inspect complex, fine-line and high-density substrate designs and very dense and complex printed circuit boards during the manufacturing process. We market the Orion Fine Line system to manufacturers of HDI-S and manufacturers of very dense and complex printed circuit boards.

MEP Product Division Systems for the Microelectronics Industry

Our intelligent optical inspection systems for the microelectronics industry address the inspection needs of semiconductor manufactures, bumping service providers and device packaging houses. Our systems detect surface defects and dimensional deviations, thus providing data for process monitoring and helping to assure high production yield, as well as producing valuable data for process monitoring.

The KIS System

The KIS system inspects the wafer after the dicing process for the detection and analysis of defects caused during the dicing process. This system inspects both the front and back sides of diced wafers and can measure chipping, cracks and scratches. The KIS system uses statistical process control to analyze chipping, cracking and cut placement deviations, which enables both engineering and production teams to improve, optimize and stabilize the wafer dicing process. The KIS system is capable of handling a wide range of wafer material, thin wafers and wafers of up to 12 inches. We market the KIS system to manufacturers of semiconductors, however, since the features of the KIS system will be integrated into the Falcon and the Gemini systems, which are currently under development, we do not believe that the KIS system, as a stand-alone unit, will generate a significant amount of revenues in the future.

The Falcon System

Our Falcon system is currently under development, and we plan to introduce it to the market in the second half of 2003. The Falcon system has the ability to inspect un-mounted wafers in the final manufacturing stages. It detects surface defects such as scratches, contamination and probe misplacement, as well as bump size and placement deviations. We will market the Falcon system to manufacturers of semiconductor wafers and bumping service providers.

The Gemini System

Our Gemini system is currently under development, and we expect to introduce it to the market during the second half of 2003. The Gemini system inspects frame-mounted wafers before or after dicing. The Gemini system can measure dicing-related defects, such as excessive chipping and cracking on both sides of the wafer. It also detects surface defects, such as scratches, contamination and probe misplacement, as well as bump size and placement deviations.

Customers

Our customers are located in 33 countries. During the year ended December 31, 2002, two customers accounted together for about 14.1 % of our total revenue.

Sales, Marketing and Customer Support

Our policy is to provide customer support and services through local subsidiaries in each territory in which our products are sold. We have established a global distribution and support network, spread over territories in which we have sales, including North America, Europe and Asia. We may expand our network into additional territories as market conditions warrant.

In North America and Europe, we currently market our products through Camtek USA, Inc., and Camtek (Europe) N.V., respectively, our wholly owned subsidiaries, which operate independently using a direct sales force and a network of local agents. In Asia, we market our products using distributors, sales representatives and our own sales support personnel, and in Japan, we distribute our products for the printed circuit board and semiconductor packaging industries using a local distributor. Our foreign subsidiaries in the United States, Europe and Asia employ local personnel. Worldwide marketing efforts are coordinated by our General Manager, who is based at our headquarters in Israel.

As of December 31, 2002, 95 people were engaged in our worldwide sales, marketing and support efforts, including support and sales administration staff. Due to the shift in our sales from North America and Europe to East Asia, we are in the process of adjusting our worldwide sales, marketing and support organization, which includes the transfer of personnel to East Asia.

Our marketing efforts include participation in various trade shows and conventions, publications and trade press, demonstrations performed at our facilities and regular contact with customers by sales personnel. We service and provide training to customers on all our products. We provide our customers with system documentation and training in maintenance and use. In addition, for a fee, we offer service and maintenance contracts commencing after the expiration of the warranty period, which is typically one year. Under our service and maintenance contracts, we provide prompt on-site customer support. Software updates are typically included in the service and maintenance contract fees.

Manufacturing

We maintain an ISO-9002 certified, manufacturing facility in Israel of approximately 28,000 square feet for production of our products, and we are subject to periodic inspections by ISO representatives, to ensure continued adherence to ISO guidelines. Maintenance of ISO certified manufacturing facilities is standard in our industry.

We believe that our production capacity is sufficient for our current and expected level of sales, and the manufacturing process for our products generally lasts three to four weeks.

Our manufacturing activities consist primarily of the assembly, integration and testing of parts, components and subassemblies, which are acquired from third-party vendors and subcontractors. We utilize subcontractors in Israel, the United States, Europe, China, Korea and Japan for the production of subsystems, mechanical parts, optical components, castings and casings, electronic cabinets, printed circuit board fabrication and assembly. Most electronic components are imported from the United States, Europe and Japan.

We purchase some of the key components and subassemblies included in our products from a limited group of suppliers. To date, we have been able to obtain sufficient units of these components to meet our needs and do not foresee any short-term supply difficulty in obtaining timely delivery of any parts or components. We generally maintain a two- to three-month inventory of critical components used in the manufacture and assembly of our products.

Competition

The industries and markets we serve are characterized by intense competition. We believe our success will depend primarily on our ability to provide competitively priced, efficient and easy-to-use products, which offer reliable defect detection capability, as well as prompt delivery and responsive customer support. As a result, we cannot be certain that the products and services we offer will compete effectively with those of our competitors. Furthermore, should competition intensify, we may have to reduce the prices of our products. If we are unable to compete successfully against our competitors, our business would be materially adversely affected.

Our principal competitor in the printed circuit boards industry is Orbotech, which currently commands a substantial majority of that market for AOI systems and services for printed circuit board manufacturers. Our other competitors in this industry include Lloyd Doyle, Dainippon Screen Manufacturing, and Barco-Manya. To date, Orbotech has the largest installed base of AOI systems globally for printed circuit board manufacturers, which gives Orbotech a distinct advantage in this field. Our inability to further penetrate this market or the development of superior products by one or more competitors, or our failure to successfully respond to these developments, could adversely affect our business prospects.

The semiconductor packaging and microelectronics markets we serve are also characterized by intense competition, and many companies develop and provide products for these markets that are similar to or serve the same function as our products, although there are no dominant market participants presently in either of those markets. The principal competitive factors in these markets are reliability, technology, sales and equipment performance. Some of our primary competitors in the semiconductor packaging industry are Orbotech, Robotic Vision Systems, Inc., and Utechzone Co. Ltd. Some of our primary competitors in the microelectronics industry are August Technology Corporation and Robotic Vision Systems, Inc. Competition may also include companies seeking to enter our markets. If widespread acceptance of intelligent optical inspection technology and for our systems does not develop in the semiconductor packaging and microelectronics industries or if we fail to further penetrate these markets due to the acceptance of our competitors technologies, our future growth will be adversely affected.

Some of our competitors, most notably Orbotech, have greater financial, personnel and other resources, offer a broader range of products and services than we do, and may be able to respond more quickly to new or emerging technologies or changes in customer requirements, benefit from greater purchasing economies, offer more aggressive pricing or devote greater resources to the promotion of their products. In addition, one or more of our competitors may develop superior products and these products may achieve greater market acceptance than our products.

Legal Proceedings

We are not party to any material legal proceedings.

C. *Organizational Structure*

Priortech, our parent company, beneficially owns 77.8% of our issued and outstanding ordinary shares. Priortech, through its affiliated companies, engages in various aspects of electronic packaging, including the assembly of printed circuit boards and the development of advanced substrates, which are intermediate components connecting the chip to the printed circuit board. Priortech is also one of the largest manufacturers of printed circuit boards in Israel, based on 2000, 2001 and 2002 sales. We have worked closely with Priortech and its affiliated companies and have utilized their facilities to develop, modify and test, during the manufacturing process, our AOI systems for the printed circuit board industry and our products for the semiconductor packaging industry.

We have eight wholly owned subsidiaries: Camtek USA, Inc., incorporated under the laws of the State of New Jersey, Camtek (Europe) N.V., incorporated under the laws of Belgium, Camtek H.K. Limited, incorporated under the laws of Hong Kong, Camtek Japan Limited, incorporated under the laws of Japan, Camtek Electronic Technologies (Suzhou) Co. Limited, incorporated under the laws of China, Camtek Korea Limited, incorporated under the laws of Korea, Camtek South East Asia Pte. Limited, incorporated under the laws of Singapore,

and Camtek Taiwan Ltd., incorporated under the laws of Taiwan.

D. ***Property, Plants and Equipment***

Our main office, manufacturing and research and development facilities, located in the Ramat Gavriel new industrial area of Migdal Haemek in northern Israel, occupy 74,000 square feet. We believe that these facilities are adequate for our current operations.

On September 14, 1998, we entered into an agreement to lease our present premises. We also acquired an option to purchase the building and the underlying land from the lessor, which we intend to exercise. We relocated to this facility in the fourth quarter of 2001. The lease is for a term of 23 years and eight months commencing in the fourth quarter of 2001. The lease payments and the price of the option equal the actual cost of the building, which is approximately $8.0 million, plus standard financing costs and $595,000, less any grants received for the building, divided by the term of the lease. We have the right to terminate the lease agreement after seven years and at the end of each three year period thereafter.

Item 5. Operating and Financial Review and Prospects.

A. Operating Results

The following discussion of our financial condition and results of operations should be read in conjunction with the consolidated financial statements and the notes to those statements included herein, which have been prepared in accordance with accounting principles generally accepted in the United States, or United States GAAP.

Overview

We design, develop, manufacture and market intelligent optical inspection systems and related products for the printed circuit board, semiconductor packaging and microelectronics industries used to enhance yields and processes in these industries. We began operations in 1987. In 1992, Priortech purchased all of our shares then held by Camtek Corp. N.V., and became the holder of a controlling interest of 66 $^{2}/_{3}$% in us. In April 1996, Priortech purchased all of the remaining shares of Camtek, and Camtek became a wholly owned subsidiary of Priortech. In July 2000, we sold 5,600,000 ordinary shares to the public in an initial public offering. In August 2000, we sold an additional 235,000 ordinary shares following the exercise of the underwriters over-allotment option. In August 2002, we sold 5,926,730 ordinary shares in a rights offering of ordinary shares to our then existing shareholders, out of which 5,922, 228 were sold to Priortech Ltd. Consequently, at the present Priortech Ltd. beneficially owns 77.8% of our issued and outstanding ordinary shares. During 1993, we began development of our AOI systems for the printed circuit board industry and sold our first AOI systems in the last quarter of 1994. Since 1995, we have derived substantially all of our revenues from sales of our AOI systems. In 2001, we began to develop products for the inspection of HDI-S for the semiconductor packaging industry, and in 2002, we commercially released our Pegasus system and our Orion Fine Line System for this market.

In September 2001, we acquired all of the outstanding shares of Inspectech Ltd., a developer and producer of automatic inspection systems for the microelectronics industry for an aggregate purchase price of $2,250,000. In December 2001, Inspectech was merged into us. The acquisition has allowed us to market a new line of products for the microelectronics industry and to develop a new system for inspecting flip chip bumps. In the second half of 2001, we reorganized along three product divisions for the printed circuit boards industry, the semiconductor packaging industry and the microelectronics industry. Our research and development expenses have increased since the acquisition as a result of the write off of purchased in process research and development, our efforts to assimilate Inspectech s technology and products into our own and our ongoing development efforts. During the fourth quarter of 2002, we consolidated our product division for the semiconductor packaging industry and our product division for the microelectronics industry into one unified product division the Microelectronics Packaging (MEP) Division. This allowed us to reduce some of the costs associated with the expansion of our business and product range.

We introduced six new products in 2001 and two new products in 2002. We anticipate that we will continue to devote substantial resources to research and development in the future but do not expect any significant increase in our overall research and development expenditures in 2003.

The printed circuit board industry is experiencing a prolonged and severe downturn, which is reflected in a continuing low level of sales of printed circuit boards. As a result, the overall rate of capital spending by printed circuit board manufacturers has been greatly reduced, and sales of our products to these manufacturers have declined. In addition, many of our customers are currently experiencing a period of excess capacity, and it is not clear when a recovery in sales will take place or when demand for our AOI systems will start to increase. This downturn has resulted in a 17.1% decrease in our revenues in 2001 from 2000 and a 48.7% decrease in our revenues in 2002 from 2001. It is also unclear as to whether a market for our products for the semiconductor packaging and microelectronics industries will develop at the rate we expect or

whether these products will be accepted by manufacturers in these industries.

We recognize revenues from the sales of our products upon the acceptance of our systems, which, in general, occurs no earlier than at the time we install the system at the customer s site.

We recognize revenues from the provision of services at the time the service is provided or, if provided under a service contract, over the life of the contract on a straight-line basis. We expect that in the long term revenues from the performance of services will increase with the increase in the installed base, however, this may not occur in periods of economic decline. Estimated warranty obligations are charged to operations in the period in which the associated revenue is recognized. Our research and development costs are expensed as incurred.

Grants received from the Office of the Chief Scientist for approved research and development programs are recognized upon the later of the time the costs related to a particular project are incurred and the time that project receives approval from the Office of the Chief Scientist. Royalties related to those grants are included in selling, general and administrative expenses when paid. In March 2001 we made an arrangement with the Chief Scientist whereby we have to repay the outstanding balance of the grants we received, not including grants received by Inspectech prior to its merger into us, at a quarterly rate equal to 4.5% of the revenues derived in connection with products we developed as a result of research and development funded by Chief Scientist participations, up to a maximum amount of $250,000 per quarter. We have not received any additional grants from the Office of the Chief Scientist since 2000. As of December 31, 2002, the outstanding balance of the grants was approximately $1.08 million, of which approximately $950,000 was due as of such date, including grants received by Inspectech prior to its merger into us. See Business--Research and Development.

We sell our AOI systems for the printed circuit board industry to Priortech affiliates at a discount off the list price of our AOI systems which is within the range of discounts we give to other multiple-order customers or other customers that are located in proximity to our manufacturing facility. Sales to Priortech affiliates represented 1.3% of sales in 2000 and, 1.2% of our sales in 2001. In 2002, we did not sell any AOI systems or related services to Priortech.

The currency of the primary economic environment in which our operations are conducted is the dollar. Most of our revenues are derived in dollars while the prices of most of our materials and components are purchased in dollars or are linked to changes in the dollar/NIS exchange rate effective on the date of delivery of the goods to our factory. Most of our marketing expenses are also denominated in dollars or are dollar linked. Salaries and other operating expenses in Israel are paid in NIS. In our consolidated financial statements, transactions and balances originally denominated in dollars are presented at their original amounts. In Europe, our sales are denominated in euros. Gains and losses arising from non-dollar transactions and balances are included in the determination of net income as part of financial expenses, net.

During the fourth quarter of 2001 and throughout 2002, we implemented several cost cutting and adjustment programs and measures, which included reductions in salaries, selective layoffs on a world-wide basis, the consolidation of two of our product divisions and a reduction of other expenses, including subcontractor and materials costs. Our cost reduction programs and measures resulted in an improvement in the level of our expenses during 2002 and the first quarter of 2003.

Year Ended December 31, 2002 Compared to Year Ended December 31, 2001

Revenues. Revenues decreased 48.7% to $22.6 million in the year ended December 31, 2002 from $44.1 million in the year ended December 31, 2001, primarily as a result of the downturn in the global electronics industry, which resulted in our customers having excess capacity of capital equipment. Our revenues in 2002 included sales of new products related to the High Density Interconnect division (HDI) and to the Microelectronic division (ME) of about $1.8 million. In 2002, our total sales declined on an absolute basis in all geographic markets; however, the relative significance of the geographic markets as a percentage of our total sales has continued to shift from Europe and the United States to East Asia, principally to China and Taiwan. Within this sales shift we had a decrease of 73.9% in sales to the United States and Europe and had a decrease of 18.5% in sales to China and Taiwan.

Gross Profit. Gross profit consists of revenues less cost of revenues, which includes the cost of components, other production materials, labor, depreciation, factory overhead, installation and training. These expenditures are only partially affected by sales volume. In 2002, we experienced a decrease in gross profit and margins primarily due to a decrease in our sales volume and price reductions due to intense competition. Gross profit decreased 68.1% to $7.1 million in 2002 from $22.4 million in 2001. Gross margin decreased to 31.6% in 2002, including a one-time inventory write-off of $1.8 million due to engineering enhancements, or 39.6%, excluding this one-time write off, compared to 50.9% in 2001.

Research and Development Costs, Net. Research and development expenses consist primarily of salaries, materials consumption and costs associated with subcontracting certain development efforts. Total research and development expenses for 2002 were $7.2 million, compared to

$12.7 million in 2001. In 2002, we reduced our research and development costs due to an expense cutting program, and because the expenses for 2001 included a one-time charge of $3.6 million related to in-process research and development, which was written off in connection with the acquisition of Inspectech Ltd. In 2002, our research and development expenses were reduced by 43.3%, including the one-time charge related to the acquisition of Inspectech Ltd , or 20.1%, excluding this one-time charge. We have not received any additional grants from the Office of the Chief Scientist since 2000.

Selling, General and Administrative Expenses. Selling, general and administrative expenses consist primarily of expenses associated with salaries, commissions, royalties, promotional and travel, doubtful debt and rent costs. Our selling, general and administrative expenses decreased by 22.0% to $11.1 million in 2002 from $14.2 million in 2001. Selling, general and administrative expenses as a percentage of revenues increased to 48.9% from 32.2% in 2001. A major portion of our selling, general and administrative expenses consists of fixed expenses incurred as a result of maintaining a global sales infrastructure, therefore, the decrease in the absolute cost did not have the same impact as a percentage of total revenue.

Financial and Other (Expenses) Income, Net. We had a net financial income of $331,000 in 2002 as compared to a net financial income of $1.4 million in 2001. Our cash balances, which generate financial income, decreased by $4.1 million resulting in lower interest income. Additionally, we experienced