

Enhancing SIMOX Productivity



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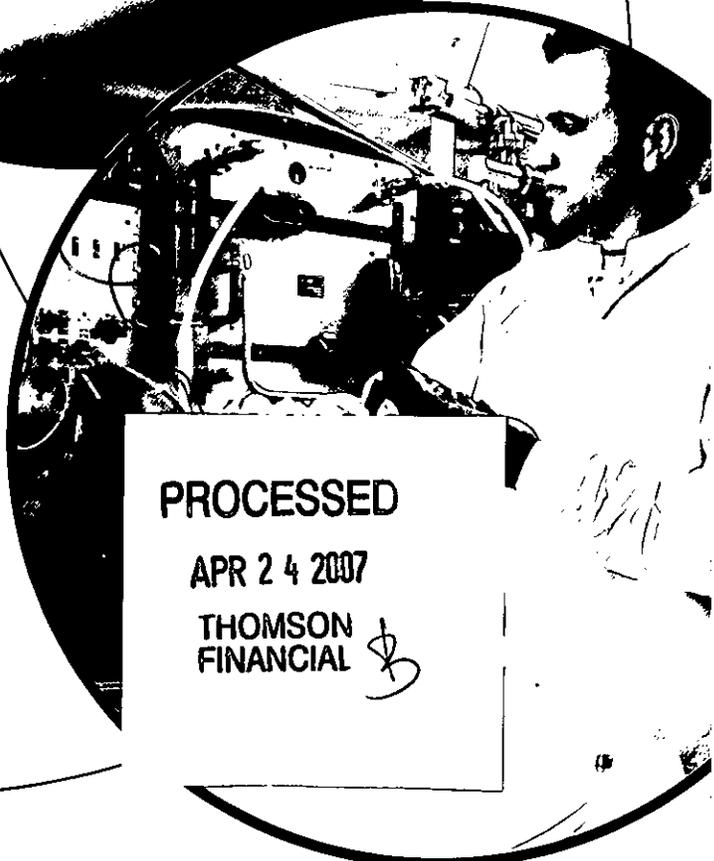
Ibis Technology Corp

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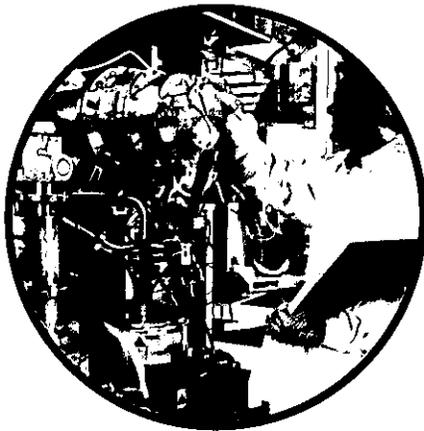
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2006 annual report

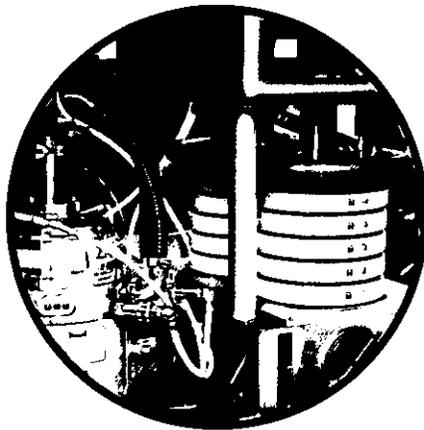
ENHANCING SIMOX PRODUCTIVITY



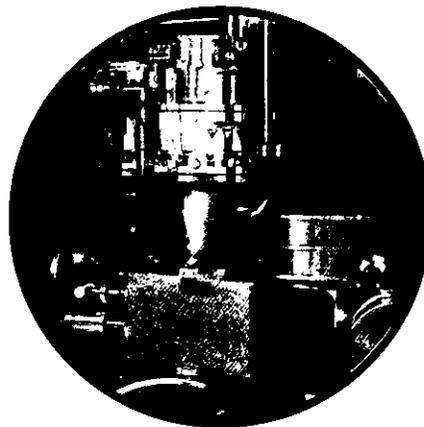
During 2006, IBIS converted its manufacturing approach from a conventional "bay build" to a modular build system. With this approach, each of the five major modules that make up the i2000 are assembled and tested independently in their own cell. Here the equipment front-end module (EFEM) is having the operator interface units installed.



Testing includes verifying the accuracy of the interface points for each module. Connections for electrical power, cooling water and compressed air are available in each cell such that the mechanical, electrical and vacuum integrity of nearly all major assemblies can be confirmed—as shown here for the beam-line module.



Generation of the high (~80 mA) Oxygen beam currents required for SIMOX is achieved by the combination of a microwave-powered electron cyclotron resonance (ECR) ion source and the compact high voltage extraction power supply shown to the left.



To efficiently transport the Oxygen ions and to maintain an ultra-clean environment for the wafers, the beam-line and process chamber are maintained at very high vacuum levels using a combination of magnetically-levitated turbo-molecular pumps (shown at left) backed by point-of-use dry roughing pumps.

COMPANY PROFILE

Ibis Technology Corporation is a leading provider of SIMOX-SOI implantation equipment to the worldwide semiconductor industry.

SOI (Silicon-on-Insulator) refers to a substrate technology where an insulating layer is formed within a silicon wafer, isolating the top layer of silicon where the active transistors will be manufactured from the rest of the silicon substrate. The insulating layer acts as a barrier that can reduce electrical leakage from the transistors, resulting in semiconductor devices that are faster and more power efficient.

SIMOX (Separation-by-IMplantation-of-Oxygen) refers to a technique used for manufacturing SOI wafers where an oxygen implanter and an annealing process are used to create a thin insulating layer within the wafer, just below a thin layer of silicon on the top of the wafer.

FINANCIAL HIGHLIGHTS

Years Ended December 31,	2002	2003	2004	2005	2006
(In thousands, except for per share data)					
Statement of Operations Data:					
Contract and other revenue	\$ 283	\$ 660	\$ 391	\$ 324	\$ 560
Equipment revenue	6,103	8,782	7,535	278	13,427
Total revenue	6,386	9,442	7,926	9,602	13,987
Income/(loss) from continuing operations	\$ (7,285)	\$ (3,852)	\$ (5,641)	\$ (9,461)	\$ 405
Net income (loss)	\$(14,096)	\$(21,450)	\$(10,919)	\$(9,245)	\$ 405
Net income (loss) per common share	\$ (1.53)	\$ (2.21)	\$ (1.02)	\$ (0.86)	\$ 0.04
Weighted average common shares outstanding	9,208	9,728	10,666	10,738	10,980

As of December 31,	2002	2003	2004	2005	2006
(In thousands)					
Balance Sheet Data:					
Working capital	\$ 5,551	\$ 12,607	\$ 12,415	\$ 5,145	\$ 7,495
Total assets	51,699	35,343	22,283	19,992	13,789
Stockholders' equity	38,755	31,117	20,420	11,297	12,256

TO OUR SHAREHOLDERS:

For Ibis, 2006 was a year of significant progress and some disappointment. On the positive side, we recognized revenue for two Ibis i2000 implanters, generating total revenues of \$14.0 million, compared to \$0.6 million in 2005. We also demonstrated the leverage attainable in our equipment-based business model with a net income for the fiscal year of \$0.4 million, or \$0.04 per share, compared to a loss of \$9.2 million, or a loss of \$0.86 per share, in fiscal year 2005. Conversely, the qualification process for our customer's SIMOX-SOI products has turned out to be more prolonged than we had projected. As a result, we received no orders for additional i2000 systems during 2006.

Financial Adjustments

This absence of new system orders prompted us to initiate several actions. First, we reduced our cash burn rate by a combination of staffing reductions, discretionary expense controls, contracting out a considerable portion of our remaining resources, and having management voluntarily accept substantial salary reductions. Personally, I would like to take the opportunity to commend our Ibis personnel for their resolve and their commitment to the future of SIMOX as they have adapted to these demanding times.

Next, in a move to further strengthen our financial position, we announced in February of 2007 the signing of definitive agreements with institutional investors to raise a total of \$5.3 million in equity capital. The first close of a two-stage financing has been completed. We will ask our shareholders to approve the second portion at our Annual Meeting, currently scheduled for May 10, 2007. We believe it is prudent to provide additional cash to the business at this time rather than to rely solely on future orders to support our needs for working capital and other cash requirements.

Strategy

Our strategy remains focused on providing oxygen implanters to the world's silicon wafer manufacturers. They, in turn, use the Ibis implanters to convert their silicon wafers to SIMOX-SOI wafers. We believe that this approach will result in the lowest cost, high-quality silicon-on-insulator (SOI) wafers for the chip making industry.

Technological Advancements

We have continued our internal focus on improving the quality and reducing the cost of SIMOX-SOI wafers. Our wafer process and engineering development efforts have been able to demonstrate improved SOI uniformity, reduced particulate contamination and reduced wafer handling times, which increases throughput. In addition, during 2006, we began the incorporation of advanced manufacturing technology into our production process. Our most recent i2000 system has been assembled and tested using a modular build approach, which we intend to fully develop and deploy for faster, higher quality production of future units.

Expanding Market

Based on conversations with our active and prospective customers, and based on the increasing flow of information about the advances and adoption of SOI wafers as seen in the media, we believe that the market for SOI is growing. It is also important to note that SOI substrates, including SIMOX-SOI wafers, are compatible with essentially all of the new advancements in channel engineering, such as high-K dielectrics and metal gates. Both we and our customers are working on existing and new applications and formulas to support the needs of the global semiconductor industry.

Outlook

In summary, we are seeing increasing adoption of SOI technology and SOI market growth through new applications. We have partnered with one of the world's largest and most progressive silicon wafer manufacturers. We have improved our implanters and our manufacturing processes. We have reduced our expenses and concluded a new agreement for additional capital. With all of these things in place, we look forward to fiscal 2007.



Charles M. McKenna, Ph.D.
President and Chief Executive Officer

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2006

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

For the transition period _____ to

Commission file number: 0-23150

IBIS TECHNOLOGY CORPORATION

(Exact name of registrant as specified in its charter)

Massachusetts

*(State or other jurisdiction
of incorporation or organization)*

04-2987600

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

32 Cherry Hill Drive, Danvers, MA
(Address of principal executive offices)

01923
(Zip Code)

Registrant's telephone number, including area code: **(978) 777-4247**

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

None.

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

Common Stock, \$.008 Par Value Per Share
(Title of class)

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

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

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer or a non-accelerated filer.

Large Accelerated Filer Accelerated Filer Non-Accelerated Filer

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

The aggregate market value of the registrant's voting and non-voting common equity held by non-affiliates of the registrant (without admitting that any person whose shares are not included in such calculation is an affiliate) computed by reference to the price at which the common equity was last sold, or the average bid and

asked price of such common equity, as of the last business day of the registrant's most recently completed fourth fiscal quarter (based on the last reported sale price on the Nasdaq National Market of such date) was \$16,154,912.

As of February 28, 2007, the registrant had 12,315,481 of common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

The following documents (or parts thereof) are incorporated by reference into the following parts of this Form 10-K: Certain information required in Part III of this Annual Report on Form 10-K is incorporated from the Registrant's Proxy Statement for the Annual Meeting of Stockholders to be held on May 10, 2007.

PART I

Special Note Regarding Forward-Looking Statements

This Form 10-K contains express or implied forward-looking statements within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995 that relate to future events or our future financial performance. In some cases, you can identify forward-looking statements by terminology, such as "may," "will," "should," "could," "expect," "plan," "anticipate," "believe," "estimate," "project," "predict," "intend," "potential" or "continue" or the negative of such terms or other comparable terminology, although not all forward-looking statements contain such terms. In addition, these forward-looking statements include, but are not limited to, statements regarding, among other things: (i) the Company's ability to conduct its operations in a manner consistent with its current plan and existing capital resources or otherwise to obtain additional implanter orders or to secure financing to continue as a going concern, (ii) reliance on a small number of large customers, interest in and demand for, and market acceptance of, the Company's SIMOX-SOI technology including the Company's implanters, (iii) attaining implanter improvements to the degree and in the timeframe necessary to meet customers expectations, (iv) the timing and likelihood of revenue recognition on the implanters ordered by the Company's customers, (v) the customer qualification and timing of SUMCO's ramping to production quantities on the i2000 implanter and the sustained production worthiness of the i2000 implanter, (vi) the Company's ability to retain key executives and employees, (vii) the involvement generally of the silicon wafer manufacturing industry in the SOI wafer market, and the ability of the wafer manufacturers to produce sufficiently low cost SIMOX-SOI wafers utilizing both our SIMOX equipment and technology, as well as other equipment manufacturers tools, (viii) the Company's belief that wafer manufacturers will become the primary suppliers of SIMOX-SOI wafers to the chipmaking industry, (ix) the throughput and production capacity of the i2000 implanter for manufacturing 300-mm SIMOX-SOI wafers, attaining implanter improvements to the degree and in the timeframe necessary to meet customer expectations, and the ability of the i2000 implanter to achieve acceptable production yields, (x) the Company's plan to focus on supplying implanters to wafer manufacturers, (xi) the Company's expectations regarding future orders for i2000 implanters, and the likelihood and timing of revenue recognition on such sales, (xii) the Company's expectation regarding future willingness of wafer manufacturers to purchase equipment from the Company, (xiii) the technological advancements and the adoption rate of SOI technology, and (xiv) the Company's expectation of having sufficient cash for operations. Such factors and uncertainties include but are not limited to those set forth below in "Business Risk Factors" and elsewhere throughout this Form 10-K. All information set forth in this Form 10-K is as of the date of this Form 10-K and Ibis undertakes no duty to update this information, unless required by law.

Item 1. BUSINESS

Introduction

Ibis Technology Corporation ("Ibis") develops, manufactures and markets SIMOX-SOI implantation equipment for the worldwide semiconductor industry. SIMOX, which stands for Separation by IMplantation of OXygen, is a form of silicon-on-insulator, or SOI, technology that creates an insulating oxide barrier below the top surface of a silicon wafer through implantation and annealing. Our proprietary oxygen implanters produce SIMOX-SOI wafers by implanting oxygen atoms just below the surface of a silicon wafer to create a very thin layer of silicon dioxide between the thin operating region of the transistor at the surface and the underlying silicon wafer itself. The buried layer of silicon dioxide acts as an insulator for the devices fabricated on the surface of the silicon wafer and reduces the electrical current leakage which otherwise slows integrated circuit performance, and/or increases the loss of power during circuit operation. The buried layer of silicon dioxide also helps to reduce the heat generated by the transistors. Through this process our customers can produce integrated circuits, which we believe, offer significant advantages over circuits constructed on conventional silicon wafers. We believe that these advantages include:

- substantially improved speed for microprocessors and other logic integrated circuits,
- reduced power consumption,
- reduced soft error rate,
- Compatibility with a higher temperature operating environment, and

- lower temperature operation

We believe these characteristics make SIMOX-SOI wafers, and the finished integrated circuits, well-suited for many commercial applications, including:

- servers and workstations,
- portable and desktop computers,
- entertainment devices such as TVs and game consoles,
- wireless communications and battery powered feature rich hand held devices including cell phones, and
- harsh-environment electronics.

When Ibis began operations in 1988, much of our revenue was derived from research and development contracts and sales of wafers for military applications. Over the years, there was a shift in revenue to sales of SIMOX-SOI wafers for commercial applications and the nature of our business had evolved through stages where previously our revenue was at times primarily derived from selling wafers for evaluation purposes, and at other times it was primarily derived from equipment sales. This often occurs when developing and promoting a fundamental new technology, especially as it relates to the semiconductor industry embracing any change that affects fabrication operations. In mid-2004 we exited the wafer manufacturing business to concentrate our efforts on supplying equipment and process technology to our equipment customers, the major silicon manufacturers. We did this having advanced our primary goal of establishing SIMOX-SOI as a leading SOI technology with the potential to be the low cost, high volume offering. We now intend to work with the major wafer manufacturers to support the market acceptance of 300mm SIMOX technology through continuing process research and development in conjunction with our customers. We believe this effort will directly support the wafer manufacturers' decision to purchase our equipment.

Our fundamental SIMOX-SOI technology has been developed, refined, and tested over the last dozen years. In 2002, Ibis introduced the current-generation of SIMOX-SOI technology, which included our second generation oxygen implanter (i2000™) and the modified low dose ("MLD") SIMOX wafer process which was licensed to us by IBM. The i2000's flexibility, automation and operator-friendly controls allow this tool to produce a wide range of SIMOX-SOI wafer products using different manufacturing processes, including Advantox® MLD and Advantox MLD-UT wafers. We believe the ability of the i2000 implanter to produce twelve-inch (or 300mm) SIMOX-SOI wafers using different processes from standard to the latest MLD process positions us to capitalize on the growing SOI market. In early 2004 we received an order valued at approximately \$7.0 million for an i2000 SIMOX oxygen implanter from a major silicon wafer manufacturer. During the third quarter of 2004 this tool was accepted by the customer. In early January 2005 we received a \$6.0 million order for an i2000 SIMOX oxygen implanter from SUMCO, another major silicon wafer manufacturer. During the first quarter of 2006, this tool was accepted by the customer. In October of 2005 we received a second order valued at \$7 million for an i2000 SIMOX implanter from SUMCO and negotiated a master purchase agreement that will govern the general commercial terms of potential future orders from SUMCO. We shipped this implanter in April of 2006 with final customer acceptance and associated revenue recognition taking place in the August of 2006.

We were incorporated in Massachusetts in October 1987 and commenced operations in January 1988. Our executive offices are located at 32 Cherry Hill Drive, Danvers, Massachusetts 01923 and our telephone number is (978) 777-4247. Our web site is located at www.ibis.com. We make our periodic reports on Form 10-K, Form 10-Q and Form 8-K (and any amendments to those reports) available on the web site, free of charge, as soon as reasonably practicable after these reports are filed with or furnished to the Securities and Exchange Commission. We have not incorporated by reference into this document the information on our web site and you should not consider it to be a part of this document. Our web site address is included in the document as an inactive textual reference only. The public can also obtain access to such reports at the Securities and Exchange Commission's Public Reference Room at 450 Fifth Street, NW, Washington, DC 20549, by calling the SEC at 1-800-SEC-0330 or by accessing the SEC's website, which is www.sec.gov.

Unless the context otherwise requires, the terms "Ibis", "we", "us", and "our" refer to Ibis Technology Corporation.

Our Strategies

Ibis' primary objective is to be the dominant supplier of oxygen implantation equipment to the world's silicon wafer manufacturers so they can, in turn, efficiently and cost-effectively supply SOI wafers to the global semiconductor industry. Our primary emphasis is on implanter sales and support. We also plan on continuing process development for SIMOX-SOI wafers in partnership with our equipment customers to hasten the adoption and broaden the market acceptance of SIMOX-SOI. Key elements of our strategies for achieving this objective include:

- *Capitalizing on Fundamental Trends in Semiconductor Manufacturing.* We believe that semiconductor manufacturers face an increasing demand for faster integrated circuit speed, reduced power consumption, smaller feature size and immunity to soft failure errors, which are changes in logic state due to exposure to radiation. In addition, heat generation caused by current leakage has become a major problem at the 90 nm feature size and will continue to increase in importance at the 65 and 45 nm technology nodes as production comes on stream over the next four years. In our experience, these manufacturers prefer to satisfy the demand with minimal additions or modifications to their existing equipment base. We believe that SIMOX-SOI technology is a leading alternative in addressing these requirements and that there will be a continuous migration of SOI wafer manufacturing into the major silicon wafer suppliers. We reach this conclusion for a number of reasons. First, we believe that tremendous price pressure exists on commodity type products, such as silicon wafers. Because the starting wafer represents a significant component of the SOI wafer cost, silicon wafer manufacturers should have a natural cost structure advantage leading to a higher gross margin, and therefore can manage such pricing pressures better than stand-alone SOI producers that do not also produce the silicon wafer itself. Second, we expect that the pricing pressures will encourage silicon wafer manufacturers to seek out higher margin products, like SOI wafers, to increase their margins. Third, we believe that silicon wafer manufacturers have traditionally developed proprietary intellectual property in silicon materials science, which can be applied to designing optimal starting wafers for SOI production. This should give them an advantage in both minimizing wafer cost and maximizing SOI wafer quality and yield. Fourth, our experience suggests that silicon wafer manufacturers already have a well-developed infrastructure for the manufacture, sale and marketing of large volumes of substrates. Lastly, we believe that there is greater efficiency in producing the SOI wafer as part of the wafer manufacturers existing product flow, specifically avoiding the need to re-package, re-clean, re-inspect and re-ship substrates twice, once as starting silicon wafers, and a second time as SOI wafers. Therefore, as a result of these trends, we expect our ultimate customers will be drawn principally from these silicon wafer manufacturers and we plan to focus a majority of our technical and marketing resources on the leading silicon wafer manufacturers and our major key customers in the semiconductor industry who are the leaders in the adoption of SOI technology. We expect that implanter sales to *chipmakers* should be minimal, and focused on SOI processes, which the chipmaker wishes to keep proprietary, such as selective (or patterned) SIMOX, or other specialty substrates.
- *Pursuing Strategic Marketing, Manufacturing and Development Alliances.* We intend to continue to pursue relationships through which third parties will provide assistance with joint research and development opportunities on both process and equipment. In January 2003, we entered into an agreement with IBM to develop an enhanced, modified low-dose ("MLD") process for the manufacture of SIMOX-SOI wafers.
- *Enhancing and Extending Current Product Offerings.* We intend to continue to use our resources and our strategic partners' technical expertise to improve our existing equipment products, expand our core product functionality, add products to our existing product line and further advance our process technology. Our implanter research and development programs are aimed at

improving quality, and increasing throughput which results in reducing the cost of SIMOX-SOI wafers.

- *Increasing our SIMOX-SOI Equipment Manufacturing Capacity.* Going forward, we intend to gauge SIMOX-SOI equipment demand from the silicon wafer manufacturers and adjust our equipment manufacturing capacity accordingly. We currently have capacity to build approximately 10 implanters per year in our existing manufacturing space.

Marketing, Sales and Customers

Over the last several years, Ibis had focused on integrating SIMOX-SOI wafers into commercial applications. We believe that commercial shipments of our wafers had been used principally for evaluation purposes or pilot production in products, including microprocessors, gate arrays, ASICs (application specific integrated circuits), and memories (DRAMs, SRAMs, etc.). We believe that one of our customers is providing SIMOX-SOI wafers for commercial production and that a number of our potential customers are sampling SIMOX wafers or are developing prototype products.

Our primary focus today is on getting the silicon wafer manufacturers to embrace SIMOX-SOI technology. Currently, where we have succeeded, we have accomplished this through joint research and development programs, the use of sales representative agreements, and the provision of SIMOX-SOI wafer foundry services to our customers. We intend to assist the wafer manufacturers in becoming the producers of SIMOX-SOI wafers by selling and servicing oxygen implanters along with continuing to improve SIMOX wafer processing technology via our SIMOX process engineering group.

In August 2004, upon exiting the wafer manufacturing business Ibis cancelled its Sales Representative Agreement with MEMC for SIMOX SOI wafers. We believe that by canceling this agreement we have opened new market opportunities with the other silicon wafer manufacturers for the sale of our i2000 oxygen implanters. We also believe this has allowed Ibis to work closely as an independent, non-competitive resource with several of the leading wafer manufacturers regarding SIMOX-SOI process improvements.

The following table sets forth, in thousands of dollars, the amount of revenue derived from our significant customers during the fiscal years ended December 31, 2004, 2005 and 2006, as well as the percent of our revenue represented by these customers' purchases (in thousands):

<u>Customer</u>	<u>2004</u>		<u>2005</u>		<u>2006</u>	
	<u>Dollars</u>	<u>Percent</u>	<u>Dollars</u>	<u>Percent</u>	<u>Dollars</u>	<u>Percent</u>
IBM	\$384	5%	\$74	12%	\$4	--
Simgui	\$5	--	--	--	\$10	--
SEH	\$7,000	88%	--	--	--	--
Nissin Electric	--	--	279	46%	\$369	3%
Tokyo Iovenus	--	--	162	27%	\$92	1%
SUMCO	--	--	--	--	\$13,325	95%
Axcelis	--	--	--	--	\$175	1%

The revenue from SUMCO in 2006 was for the purchase of two i2000 implanters for a total of approximately \$13 million, and for the relocation of one of these systems from their Noda facility to Yonezawa. The revenue from Nissin in 2006 was from license royalties, the revenue from Tokyo Iovenus in 2006 was from the sale of parts, and the revenue from Axcelis in 2006 was for the purchase of a license option. The revenue from IBM in 2005 was for service and parts, the revenue from Nissin in 2005 was from license royalties, and the revenue from Tokyo Iovenus in 2005 was from the sale of parts. The revenue from SEH in 2004 was for the sale of an i2000 oxygen implanter for approximately \$7.0 million.

Sales to overseas customers in 2004, 2005 and 2006 were 95%, 81% and 99% of total revenue, respectively. In 2004, sales to Japan were 95% of total revenue, which was primarily attributable to Shin Etsu Handotai ("SEH"). In 2005 sales to Japan were 81% of total revenue, which was primarily attributed to Nissin Electric Co. Ltd., license royalties. In 2006, sales to Japan were 99% of total revenue which was primarily attributed to SUMCO Corporation, implanter sales.

Strategic Alliances

Ibis has entered into a number of strategic alliances that we believe enable us to better address our target market, to advance our technology more effectively, and to match our technical developments and expansion to the needs of our key customers. We believe that strategic alliances with existing and potential customers will continue to play an important role in developing a worldwide commercial market for our SIMOX-SOI implanters.

We have a long-standing relationship with SUMCO which began as a sales distribution arrangement, progressed to a joint research and development effort, and ultimately evolved into SUMCO's purchase of an Ibis 1000 oxygen implanter in order to establish a Japanese-based manufacturing facility for SIMOX-SOI wafers. This implanter was installed in SUMCO's wafer manufacturing facility in Chiba, Japan in July 2001. In 1999, we completed an agreement to license our standard and Advantox SIMOX-SOI wafer fabrication process to SUMCO. Under this agreement we received an initial royalty fee and are entitled to future royalties based on a percentage of SUMCO's sales of Advantox SIMOX-SOI wafers that are manufactured using the licensed process. In January 2005 and October 2005, SUMCO ordered i2000 SIMOX oxygen implanters which were subsequently shipped, and for which final customer acceptance was received in 2006. Revenue was also recognized for both i2000s upon final acceptance during 2006.

In January 2003, we announced the signing of a Joint Development Agreement with IBM. The objective of the agreement was to develop an enhanced, MLD process for the manufacture of SIMOX-SOI wafers, which are used as the starting material in the manufacture of advanced integrated circuits ("ICs"). Aimed at producing lower-cost, higher quality SIMOX-SOI wafers with thinner top silicon layers, the joint development work was being conducted at both Ibis and IBM. We believe that both companies brought extensive expertise and experience regarding SIMOX-SOI technology to the joint effort. IBM, a pioneer in the development and adoption of SOI technology, developed the original MLD process for high quality, low cost SIMOX-SOI wafers. IBM then licensed Ibis to manufacture SIMOX-SOI wafers using the production-proven MLD process for sale to IBM and all other Ibis customers. Our implanters can operate using both the MLD process and other processes as well, including non-proprietary processes.

In February 2004, we announced the signing of a service agreement with Tokyo Iovenus based in Tokyo, Japan. This agreement provides for local training of Japanese service engineers for our oxygen implanter customers in Japan.

Research and Development

Ibis has active research and development programs in both equipment and wafer process technology. For the past four years a primary focus has been developing implanter technology and advanced process capability to produce 300 mm SIMOX wafers. This required the development of a new generation oxygen implanter, the i2000, and the procurement and qualification of annealing, cleaning, and metrology tools for completing the full SIMOX process at 300 mm.

The proprietary i2000 was designed to support the volume production of high quality SIMOX-SOI 300 mm wafers for the global semiconductor industry. To minimize process risks the i2000 duplicates the process environment of the Ibis 1000. However, it incorporates a number of features designed to improve throughput and reduce costs. These include increased beam current, faster wafer handling, off-hub wafer cooling, and modular construction, which we believe will enable improved serviceability and diagnostics, while simplifying the assembly and shipping of the machine. We also believe that the simpler beam line

design of the i2000 also offers extensive capabilities, facilitating the manufacture of the Advantox product portfolio. We believe that taken together, these features significantly increase productivity of the i2000 over the Ibis 1000. Finally, the i2000 is designed to be far more fab friendly than the Ibis 1000. It is designed to be bulkhead or ballroom mounted in the clean room, offers front-opening unified pod (FOUP) capability and meets SEMI safety and ergonomic guidelines. We also believe that the i2000's improved automation and operator-friendly controls will improve product yield and afford ease-of-use. Our plans are to improve the i2000 in terms of both quality (reduced particles) and quantity (increased throughput) of as-implanted SIMOX wafers, in order to provide continuous improvement to the cost of ownership for our customers.

Our wafer technology R&D has concentrated on enhancing the range of potential commercial applications for Ibis' SIMOX-SOI wafers by:

- Refining techniques to produce SIMOX-SOI wafers of higher quality. In the fall of 2004 we announced a 3x to 4x reduction in the silicon roughness of the SIMOX MLD;
- Jointly developing a technology for manufacturing high resistivity SIMOX-SOI wafers for mixed signal and radio frequency ("RF") applications with a major silicon wafer manufacturer. With this alliance, we developed advancements in SIMOX wafer manufacturing, including reduced wafer cost, scalability to 300 mm and stability of the material's high resistivity characteristic through thermal cycling common in integrated circuit manufacturing. We filed a joint patent application with SEH entitled *Method of Producing a High Resistivity SIMOX Silicon Substrate* in May 2003. As of December 31, 2006 this patent has been granted;
- Processing strained silicon (another emerging wafer-materials technology) for use in SOI ("SSOI" wafers), an innovation enabling a further significant boost of device speed for complementary metal oxide semiconductor ("CMOS") products. Improved electron mobility in strained silicon leads to an increased drive current in MOS devices and is complemented by benefits provided by SOI, such as reduction of parasitic capacitances in CMOS devices. We assist our customers in their development of SSOI SIMOX wafers; and
- Responding to specific customer requirements and emerging industry trends, such as the development of our Advantox MLD-UT (ultra thin) product line to address requirements for fully depleted devices. The term "fully depleted" describes a MOS transistor structure in which the depletion region under normal operation extends as far as a buried insulator layer. We believe that ultra-thin SOI wafers provide superior results, especially in terms of increased power efficiency and heat reduction in the operation of fully depleted substrate transistors for next generation semiconductor devices.

During the fiscal years ended December 31, 2004, 2005 and 2006, Ibis' internally funded research and development expenses were approximately \$5.3 million, \$6.0 million and \$5.4 million or 67%, 995% and 39% of our revenues, respectively.

Competition

We believe we face three general sources of competition: (1) direct SIMOX-SOI competition, (2) competing SOI technologies, and (3) competing non-SOI technologies.

Among direct SIMOX-SOI competitors, we believe we are presently the only manufacturer of SIMOX-SOI implanters. To our knowledge, Hitachi, Ltd. of Japan had been the only other company manufacturing SIMOX implanters and has sold a limited number of tools in prior years. We believe that in early 2004, Hitachi exited this business. We are not aware of plans by any of the major ion implant manufacturers including Hitachi to design and develop oxygen ion implanters, but they may already have such plans, or may develop them in the future. We believe that it would take one to three years to develop such an implanter.

We also believe that SUMCO, and Simgui are manufacturing or marketing SIMOX wafers. We expect that the availability of SIMOX-SOI wafers from silicon wafer manufacturers will help address

customer concerns about adequate sources of supply and their desire to purchase all of their silicon wafer requirements (e.g., bulk silicon, epitaxial, strained silicon and SOI wafers) from the same company. Our objective is to be the dominant supplier of SIMOX implanters to the world's silicon wafer manufacturers so they can, in turn, efficiently and cost-effectively supply SOI wafers to the global semiconductor industry. In addition, we believe that these wafer manufacturers would be potential equipment customers for our implanters.

The second source of competition for us is the development of alternative SOI materials. The approach that most directly competes with SIMOX is thin-film bonded SOI wafers. The majority of SOI wafers are produced with this technology. SOITEC, a French-based company that spun off from LETI, a French government research lab, uses a bonded method. The thin-film bonded approach uses two silicon wafers, one or both having a thermally-grown oxide layer, which are first bonded together to form the silicon/silicon dioxide/silicon structure. A majority of one of the wafers is removed or separated from the double-wafer structure, and the remaining portion serves as the device layer of the SOI wafer. The most popular method is to transfer the thin layer using wafer splitting techniques, allowing the rest of the wafer to be reclaimed and reused. Regions of stress are first created using implantation and/or epitaxial growth prior to the bonding step. The wafer is split along the stress interface by the application of heat (SOITEC's Smartcut® process), a gas jet (Silicon Genesis' process), or a water jet (Canon's ELTRAN® process). SEH also offers a thin SOI Unibond® wafer manufactured with the SmartCut® process, which is licensed from SOITEC. Our evidence to date suggests that both SIMOX and bonded wafers perform equally well. We believe, however, that the SIMOX process can result in an inherently lower manufacturing cost in higher volume production. We also believe that, at this stage in the market's development, multiple SOI suppliers will help accelerate the adoption of SOI technology.

The third source of competition is derived from alternative non-SOI technologies designed to obtain benefits similar to those of SOI, including improvements to existing technologies. Significant resources are continually expended to improve epitaxial and conventional bulk silicon wafers.

The semiconductor industry has demonstrated its resourcefulness in improving materials through creative circuit design and manufacturing techniques, thereby extending the useful life of conventional substrates, and we cannot be sure that it will not continue to do so. The relatively lower cost of these substrates provides an incentive to the semiconductor industry to improve existing material without moving to new, more advanced substrates. In addition, complex variations of more conventional approaches, such as elaborate circuit structures built on conventional silicon substrates, and compound materials (such as silicon-germanium, gallium-arsenide, indium phosphide, etc.), are other alternative substrate choices. Strained silicon and silicon super lattices are technologies that can be used to increase the operating speed of computer chips, such as microprocessors. Strain can be applied locally (at the fab) or globally (at the wafer manufacturer). These technologies can be applied to bare wafers, SIMOX SOI wafers or Bonded SOI wafers. The spacing between silicon atoms is stretched – or strained - farther apart, allowing holes or electrons to flow with less resistance, leading to chips that are faster, as reported by IBM. Silicon superlattices are thin layers inserted in the channel region of the transistor that provide low impedance for current flow horizontally in the channel region just below the gate, and higher impedance for vertical current flow into the regions further below the surface. The emergence of strained silicon and silicon superlattices in wafer-materials technology will lead to comparisons with SOI, among other emerging wafer-materials technologies. Although strained silicon, superlattices and SOI are wafer-material technologies that increase chip speed, they work in different – and complementary – ways and if combined can provide additional benefits.

Strained silicon and silicon superlattices increase transistor speed by increasing the mobility of holes or electrons traveling through the channel region near the silicon surface. On the other hand, SOI increases transistor speed by reducing parasitic capacitances associated with source and drain junctions. Therefore, we believe strained silicon, silicon superlattices, and SOI (as applied through either SIMOX or Bonded SOI) are complementary and mutually enhancing - not competing – technologies, although one technology may be adopted without the other. Similarly, in the area of reducing wasteful power, high-k dielectrics with metal gates and SOI address different sources of wasteful power consumption. The high-k dielectric/metal gate combinations lower power losses by reducing charge leakage through the gate dielectric. (While the gate dielectric may be similar or even identical for all transistor types, different metals/metal stacks are used for

NMOS vs. PMOS gates to ensure they perform similarly as they did with doped polysilicon gates in larger geometry nodes.) SOI lowers power losses by blocking the conduction paths to the bulk silicon and between adjacent devices. We believe the real wave of the future will be combining these complementary technologies – strained silicon/silicon superlattice + high-k gate dielectric/metal gates + SOI – to create the highest speed, lowest-power competitive combinations, much like the way copper interconnects, low k dielectric materials and SOI substrates have been combined.

Backlog

As of February 28, 2007 Ibis did not have any orders for implanters as compared to February 28, 2006 where the backlog showed \$13 million in implanter orders. This \$13 million in backlog was recognized as revenue in 2006 upon customer acceptance. All customer orders are subject to modification or cancellation by the customers. Backlog can, and often does fluctuate significantly based upon, among other matters, the timing and receipt of orders and subsequent tool shipments. Therefore, variations in backlog may not represent a fair indication of future business trends.

Patents and Proprietary Rights

Ibis's success is dependent in part upon certain proprietary technologies and core intellectual property. Ibis has been awarded a number of patents and has a number of pending patent applications. For example, we added three patents to our intellectual property portfolio during 2004, seven patents during 2005 and five, including international patents, during 2006. We have several more patents pending relating to our proprietary i2000 oxygen implanter or the SIMOX fabrication process. Additionally, we diligently monitor our research and development process to identify inventions that warrant pursuing patent protection.

Notwithstanding our patent portfolio strategy, we rely largely upon trade secret protection and confidentiality and proprietary information agreements to safeguard our proprietary technology. Towards this end, all of our employees currently are required to execute confidentiality agreements pursuant to which they agree to assign to us all patent rights and technical or other information developed by them during their employment with us and also agree not to disclose any trade secret or confidential information without our prior written consent.

Despite the efforts we take to protect our proprietary technologies and core intellectual property, the use of contractual, statutory and common law protections offer only limited protections. We cannot ensure that patents will issue from our pending applications or from any future applications or that, if issued, any claims allowed will be sufficiently broad to protect our technology. In addition, we cannot ensure that any patents that have been or may be issued will not be challenged, invalidated or circumvented or that any rights granted by those patents would protect our proprietary rights. Failure of any patents to protect our technology may make it easier for our competitors to offer equivalent or superior technology. In addition, unauthorized parties may attempt to copy or otherwise misappropriate aspects of our products or services, or to obtain or use information that we regard as proprietary. Even if a competitor's products were to infringe patents owned or licensed by us, it would be very costly for us to enforce our rights in an enforcement action, which would also divert funds and resources which otherwise could be used in our operations. Furthermore, third parties may also independently develop similar technology without breach of our proprietary rights.

In addition to our efforts to develop proprietary technology, historically we have also supplemented and commercialized our intellectual property through the grant and receipt of licenses. For example, Ibis has an exclusive worldwide sublicense to the proprietary beam scanning system developed and patented by a consultant of ours during the development of the Ibis 1000. Our beam scanning system sublicense agreement also grants us certain rights to further sublicense the beam scanning system for certain applications other than oxygen implantation. Pursuant to these rights, we have entered into four non-exclusive sublicense agreements that permit the respective sub-licensees to manufacture, use and sell implantation machines incorporating the beam scanning system so long as such machines are not designed for the production of oxygen implanted wafers. Each sub-licensee has paid us a non-refundable option fee upon signing an agreement and pays an initial license fee when it exercises its option to use the licensed technology. In addition, each sub-licensee

will pay a royalty fee with respect to each implantation machine using this beam scanning system manufactured, used or sold after its option fee and initial license fee has been applied. License fees received by us from sub-licenses are to be shared on a substantially equal basis with the licensor of the beam scanning system. As of December 31, 2006, Ibis had received approximately \$2.8 million in net license fees, after deducting amounts paid to the licensor.

Ibis also obtained in 1994 an exclusive license to technology that facilitates the presentation of wafers to ion beams developed by Superior Limited, a United Kingdom corporation. Through December 31, 2006, Ibis has paid \$0.6 million for license fees for implantation machines that have been manufactured by us. Under the terms of this agreement, Superior Limited has retained the right to utilize the technology for uses not involving oxygen implantation of silicon or other semiconductor materials. During 2001, this agreement was modified to incorporate i2000 implantation machines. Ibis also entered into a sublicense agreement during 2001 which gives our customer a royalty-bearing, non-exclusive license to utilize this technology for ion implantation machines, excluding oxygen implanters.

During 1999, we completed an agreement to license our standard and Advantox SIMOX-SOI wafer fabrication process to SUMCO. The agreement consisted of an initial royalty fee. Future royalties shall be payable based on a percentage of SUMCO's SIMOX-SOI wafers sold which are manufactured using the licensed process.

Furthermore, in 2000, we licensed from IBM the right to manufacture and sell SIMOX-SOI wafers, using IBM's proprietary MLD SIMOX process, to IBM and to all our other customers. Under the royalty-bearing license agreement, we were able to use IBM's process to produce MLD SIMOX-SOI wafers which we marketed as Advantox MLD. Advantox MLD wafers were broadly marketed to integrated circuit manufacturers looking to accelerate their SOI adoption process. Under the agreement we granted IBM rights to our patents utilized in the modified low dose, or MLD process. Although we believe that other SIMOX-SOI wafer processing methods exist and are being used today, our existing or potential equipment customers that intend to use the MLD process to manufacture SIMOX-SOI wafers would be required to license this technology directly from IBM. Two major silicon wafer manufacturers have already licensed this technology from IBM and others have developed their own SIMOX processes. No assurances can be given that the remaining equipment customers that intend to use the MLD process and IBM would come to terms acceptable to both parties in a timely manner, or at all. These MLD process license issues may effect the timing of placement of customer orders in the future if customers plan to license this technology.

Finally, during 2001 we licensed our Advantox 50 and 150 SIMOX wafer fabrication processes to Simgui. Ibis received the initial license fee from Simgui in January 2003, and the technology transfer took place in the first quarter ended March 31, 2003. License revenue of approximately \$0.5 million was recognized in that quarter.

Government Regulation

Ibis is subject to a variety of federal, state and local environmental regulations related to the storage, treatment, discharge or disposal of chemicals used in its operations and to the exposure of our personnel to occupational hazards. Although we believe that we have all permits necessary to conduct our business, the failure to comply with present or future regulations could result in fines being imposed on us, suspension of production, or a cessation of operations. Our future activities may result in our being subject to additional regulations. Such regulations could require us to acquire significant equipment or to incur other substantial expenses to comply with regulations. Any failure by us to control the use of, or to restrict adequately the discharge of, hazardous substances or to properly control other occupational hazards could subject us to substantial financial liabilities.

Certain technologies associated with Ibis' implanters are subject to export regulations administered by the U.S. Department of Commerce. Accordingly, Ibis may be required to secure U.S. export licenses with respect to sales of implanters or transfers of technologies to end users in certain foreign countries. There can be no assurance that if necessary, Ibis will be able to secure such licenses in a timely manner, or at all.

Manufacturing and Supplies

Ibis manufactures its oxygen implanters from standard components and from components manufactured in-house or by other vendors according to our design specifications. Most raw materials and components not produced by us are available from more than one supplier. However, certain raw materials, components and subassemblies are obtained from a limited group of suppliers and at least one major subsystem is a long lead time, sole source component. Semiconductor equipment is a growth industry and is very cyclical in nature, so if our suppliers experience an increase in demand from other semiconductor equipment manufacturers with much higher volumes than us, the lead-time and/or price for some of our components may increase. Although we have sought to reduce our dependence on these limited source suppliers and we have not experienced significant production delays due to unavailability or delay in procurement of component parts or raw materials to date, increased market demand for the materials supplied by, or disruption or termination of, certain of these sources could occur and such increased demand, disruptions, or termination could have a material adverse effect on our business and results of operations.

Employees

As of December 31, 2006, we employed 45 persons on a full-time basis. On January 5, 2007 in conjunction with the company's overall cost reduction efforts, we reduced the work force by 6 people leaving 39 employees. Of these 39 remaining employees, 12 currently are consulting at a neighboring business for a minimum of six months under a staffing services agreement executed in January 2007 with that business. Additionally, certain executive and senior level management personnel received salary reductions that ranged from 10% to 50% of their salaries. These reductions are anticipated to remain in place until market conditions warrant further review. None of our employees are represented by a labor union and we believe our relations with our employees are good.

Item 1A. RISK FACTORS

The Commercial Market for SIMOX-SOI Technology is Still Developing and May Never Fully Develop.

The sources of our revenue have shifted from primarily research and development contracts and sales of SIMOX-SOI wafers for commercial applications to sales and support of oxygen implantation equipment. We are aware of only a few commercial manufacturers that are using SIMOX-SOI wafers in low volume production for a limited number of products. The performance advantages of SIMOX-SOI wafers may never be realized commercially and a commercial market for SIMOX-SOI wafers may never fully develop which in turn would adversely affect the sales of our oxygen implanters. The failure of major semiconductor manufacturers and /or major silicon wafer manufacturers to adopt SIMOX-SOI technology would adversely affect, and may prevent, the adoption of this technology by others.

We Have Relied Heavily on Sales to One Customer. We Expect to Rely on Sales to a Limited Number of Customers Which May Cause Sales to Vary Significantly from Quarter to Quarter Causing Our Operating Results to Fluctuate.

We have derived all of our sales of wafer manufacturing equipment from one customer over the last two years. The details for the last three years can be seen in section 1 under the title: Marketing, Sales and Customers in this 10K. Ibis expects that we will continue to rely on a relatively small number of customers as sources of revenue in the foreseeable future. The loss of one or more of these major customers and our failure to obtain other sources of offsetting revenue would have a material adverse impact on our business and hinder our ability to continue as a going concern. In addition, any downturn in these customers' business or the industry in which these customers operate could result in a significant decrease in any sales of our implanters to these customers, which would have an adverse effect on our business.

We May Need Substantial Additional Capital to Continue Operations in the Future.

The Company's management believes that it will have sufficient cash resources to support current operations until at least June 2008 with the receipt of the proceeds of approximately \$2.2 million from the first closing of the Company's sale of common stock and warrants pursuant to a financing agreement made on February 16, 2007 with Special Situations Funds. This expectation however, is based on the Company's current operating plan and general sales outlook, each of which may change rapidly. Subject to stockholder approval, we agreed to sell additional securities at a second closing at which we will receive approximately \$3.1 million in additional proceeds, providing sufficient cash to support current operations until at least December 2008. If we fail to obtain stockholder approval for the issuance of the additional shares pursuant to the purchase agreement, we may need to seek additional alternative financing to fund future operations, which we may be unable to obtain on favorable terms or in a timely fashion.

We intend to continue to invest in our research, development and manufacturing capabilities. Changes in technology or sales growth beyond currently established capabilities may require further investment. As a result, we may need to raise substantial additional capital in the future. We have previously financed our working capital requirements through:

- equity financings, including warrant and option exercises,
- equipment lines of credit,
- a working capital line of credit,
- a term loan,
- sale-leaseback arrangements,
- collaborative relationships,
- wafer product and equipment sales, and
- government contracts.

There can be no assurance, however, that our actual needs will not exceed expectations or that we will be able to fund our operations on a long-term basis in the absence of other sources. There also can be no assurance that any additional required longer term financing will be available through additional bank borrowings, debt or equity offerings or otherwise, or that if such financing is available, that it will be available on terms acceptable to us. If future financing is not available or is not available on a timely basis or on acceptable terms, we may not be able to fund our future needs, which would seriously harm our business and results of operations and our ability to continue as a going concern. In addition, if we raise additional funds through the sale of equity or convertible debt securities, the value of our common stock outstanding may be diluted. We may also have to issue securities that have rights, preferences and privileges senior to our common stock.

The issuance of shares in connection with the February 2007 financing and the exercise of the related warrants will dilute the value of our shares of common stock and could cause the price of our shares of common stock to decline.

Prior to the February 2007 financing, there were 10,915,481 shares outstanding and there were 370,786 shares of common stock reserved for issuance under our equity incentive and stock purchase plans. In connection with the first closing of the two tranche financing with Special Situation Funds, we issued 1,400,000 shares of common stock and 1,124,434 warrants to purchase shares of common stock, including warrants to purchase 74,434 shares of common stock issued to TN Capital Equities, Ltd., which served as placement agent. In addition, we are soliciting stockholder approval to sell an additional 1,978,377 shares of common stock and warrants to purchase 1,588,966 shares of common stock, including 105,185 to the placement agent, at a second closing. The second closing is expected to occur after our annual meeting, which is scheduled to be held on May 10, 2007. As a result of the first closing, Special Situation Funds beneficially owns approximately 19.9% of our capital stock and, subject to stockholder approval, will beneficially own approximately 37% of our capital stock upon consummation of the second tranche.

The exercise of the warrants and the issuance of the common stock and warrants pursuant to the second closing will result in dilution in the value of the shares of our outstanding common stock and the voting power represented thereby. In addition, the exercise price of the warrants may be lowered under the price adjustment provisions in the event of a "dilutive issuance," that is, if we issue common stock at any time prior to their maturity at a per share price below such conversion or exercise price, either directly or in

connection with the issuance of securities that are convertible into, or exercisable for, shares of our common stock. A reduction in the exercise price may result in the issuance of a significant number of additional shares upon the exercise of the warrants.

The warrants do not establish a "floor" that would limit reductions in such conversion price or exercise price. The downward adjustment of the exercise price of these warrants could result in further dilution in the value of the shares of our outstanding common stock and the voting power represented thereby.

No prediction can be made as to the effect, if any, that future sales of shares of our common stock, or the availability of shares for future sale, will have on the market price of our common stock prevailing from time to time. Sales of substantial amounts of shares of our common stock in the public market, or the perception that such sales could occur, may adversely affect the market price of our common stock and may make it more difficult for us to sell our equity securities in the future at a time and price which we deem appropriate.

To the extent the selling securityholders who have purchased our common shares and the holders of our warrants exercise such securities and then sell the shares of our common stock they receive upon exercise, our stock price may decrease due to the additional amount of shares available in the market. The subsequent sales of these shares could encourage short sales by our securityholders and others, which could place further downward pressure on our stock price. Moreover, holders of these warrants may hedge their positions in our common stock by shorting our common stock, which could further adversely affect our stock price.

We Have Significant Losses and May Never Be Able to Sustain Profitability.

We experienced net losses of \$10.9 million, \$9.2 million and net income of \$0.4 million in 2004, 2005 and 2006, respectively. As of December 31, 2006, we had an accumulated deficit of \$81.6 million. Net losses may continue for the foreseeable future. Although we have had profitable quarterly operating results from time to time, we may not be able to achieve sustained profitability.

Revenue Recognition and Cash Payments from Customers Depend on a Manufacturing and Customer Qualification and Acceptance Process that is Complex, Lengthy and Costly.

In the semiconductor industry customers regularly require equipment manufacturers to qualify the equipment at the customer's site. The time required to customer-qualify an implanter at a customer's site is very difficult to predict because the qualification process for each of our implanters is complex, lengthy and costly and varies depending on the customer's varying specifications. The manufacturing and qualification process for each implanter requires us to construct and the customer qualify the machine at our premises, disassemble the machine for transportation, and reassemble and re-qualify it at the customer's premises. During this qualification period, we invest significant resources and dedicate substantial production and technical personnel to achieve acceptance of the implanter. A customer will not accept the implanter until it has successfully produced wafers to exact specifications at the customer's premises. Even very small differences in the customer's environment or initially imperceptible changes that may occur to the implanter during the transportation and reassembly of the implanter at the customer's site can cause a large percentage of wafers produced by the implanter to be rejected, which would delay the acceptance of the implanter by the customer. Historically, we have experienced delays in achieving customer acceptance. Delays or difficulties in our manufacturing and qualification process could increase manufacturing and warranty costs and adversely affect our relationships with our customers. In addition, because we do not recognize revenue on the sale of an implanter until it is delivered and qualified by the customer, any delay in qualification would result in a delay in our ability to recognize revenue from the sale and receipt of final payment. Historically it has taken approximately nine to eighteen months from our receipt of our order to build, ship and obtain customer acceptance of our implanters.

We Expect Our Quarterly Revenue and Operating Results to Fluctuate Significantly.

We anticipate that our revenue and operating results are likely to vary significantly from quarter to quarter in the foreseeable future, and it is likely that in future quarters our operating results may from time to time be below the expectations of public market analysts or investors. Our stock price has been volatile and if

we fail to meet expectations of public market analysts or investors, the price of our common stock would likely decrease. Further, customers may cancel or revise orders at any time prior to delivery. These ordering patterns most likely will result in significant quarterly fluctuations in our revenue and operating results, and accordingly in our share price. In addition, because we have only sold a limited number of implanters to date on an irregular basis, the recognition of revenue from the sale of even one implanter is likely to result in a significant increase in the revenue for that quarter. A number of other factors, many of which are discussed in more detail in other risk factors, may also cause variations in our results of operations and share price, including:

- lack of orders,
- cancellations of orders and shipment delays and rescheduling,
- new product introductions, which often result in a mismatching of research and development expenses and recognition of revenue, and
- economic conditions and capital spending in the semiconductor industry and in other industries in which our customers operate.

A high percentage of our expenses are essentially fixed in the short term. As a result, if we experience delays in generating and recognizing revenue, our quarterly operating results are likely to be seriously harmed. Due to this, as well as to the cyclical nature of the semiconductor industry and other factors, we believe that quarter-to-quarter comparisons of our operating results will not be meaningful. You should not rely on our results for one quarter as any indication of our future performance.

Competitors and Competing Technologies May Render Some or All of Our Products or Future Products Noncompetitive or Obsolete Which Would Result in a Write-down for Impaired or Obsolete Assets.

The semiconductor industry is highly competitive and has been characterized by rapid and significant technological advances. A number of established semiconductor and materials manufacturers, including certain of our customers, have expended significant resources in developing improved wafer substrates. Our competitors or others, many of which have substantially greater financial, technical and other resources than we do, may succeed in developing technologies and products that are equal to or more effective than any which we are developing, which could render our technology obsolete or noncompetitive. In addition to competition from other manufacturers of SOI wafers, we face competition from manufacturers using bulk silicon and epitaxial wafer technology, and compound materials technology such as silicon-germanium, gallium-arsenide and indium phosphide and SOI technology. Although we believe that SIMOX-SOI wafers offer integrated circuit performance advantages, semiconductor manufacturers may develop improvements to existing bulk silicon, epitaxial or strained silicon wafer technology, and competing compound materials or SOI technologies may be more successfully developed, which would eliminate or diminish the performance advantages of SIMOX-SOI wafers which in turn would diminish the demand for our oxygen implanters. Further, in addition to the SIMOX implanter other equipment must be purchased and implemented in order to complete the SIMOX wafer manufacturing process. This other equipment can involve substantial cost that can increase the overall cost of SIMOX-SOI wafers.

If semiconductor manufacturers fail to adopt SIMOX technology during the current or subsequent process cycle (such cycles typically last two to three years), widespread adoption of SIMOX technology may never materialize, our technology may become obsolete and we may be required to recognize an additional material impairment loss in the future.

In addition, although we are aware of no other company manufacturing oxygen implant equipment, other major semiconductor implant equipment manufacturers could develop a less expensive oxygen implanter with superior technology. Our ability to compete with other manufacturers of semiconductor implanters, manufacturers of competing SOI wafers, as well as with bulk silicon, epitaxial, strained silicon and compound materials wafer manufacturers, will depend on numerous factors within and outside our control, including:

- the success and timing of our product introductions and those of our competitors,
- product distribution,

- customer support,
- sufficiency of funding available to us, and
- the price, quality and performance of competing products and technologies.

We Must Continually Improve Existing Products, Design and Sell New Products and Manage the Costs of Research and Development in Order to Compete Effectively.

The semiconductor industry is characterized by rapid technological change, evolving industry standards and continuous improvements in products and required customer specifications. Due to the constant changes in our markets, our future success depends on our ability to improve our manufacturing processes, improve existing products and develop new products. For example, our oxygen implanters must remain competitive on the basis of cost of ownership, process performance and evolving customer needs. To remain competitive we must continually introduce oxygen implanters with higher capacity, better production yields and the ability to process larger wafer sizes.

The commercialization of new products involves, among other requirements, substantial expenditures in research and development, production and marketing. We may be unable to successfully design or manufacture these new products and may have difficulty penetrating new markets. Because it is generally not possible to predict the amount of time required and the costs involved in achieving certain research, development and engineering objectives, actual development costs may exceed budgeted amounts and estimated product development schedules may be extended. Our business may be materially and adversely affected if:

- we are unable to improve our existing products on a timely basis,
- our new products are not introduced on a timely basis,
- we incur budget overruns or delays in our research and development efforts, or
- our new products experience reliability or quality problems.

The Sales Cycle for Our Oxygen Implanter Equipment is Lengthy and Complex and We Have Only Received Limited Orders for Our Oxygen Implanter Equipment. Certain Third Party Licensing Agreements May Cause Significant Delays.

Our customers expend significant efforts in evaluating and qualifying our implanters before they place orders with us. Since we began selling implanters in 1996, we have only sold a total of eight Ibis 1000 oxygen implanters at an average sale price of approximately \$4.0 million each and four i2000 oxygen implanters at a selling price between \$6.0 and \$8.0 million. The sales cycle typically goes from equipment demonstration, equipment specification negotiations, formal quotation, contract negotiations and receipt of order and could take up to one year or longer. In addition, our potential equipment customers that would like to use the MLD process, owned by IBM, to manufacture SIMOX-SOI wafers using our implanters would be required to license this technology directly from IBM. We believe two silicon wafer manufacturers have already licensed this technology from IBM and others have developed their own SIMOX processes. Our potential equipment customers may wish to secure this license prior to giving us an order for equipment and these negotiations between IBM and our customer are beyond our control and no assurances are given that our customers and IBM would come to terms acceptable to both parties in a timely manner, or at all. These MLD process license issues may affect the timing of placement of customer orders in the future if customers plan to license this technology. We do not expect to sell more than a limited number of implanters in the near future. The sale of one implanter would generally represent a substantial portion of our annual revenue. Accordingly, the delay in the receipt of orders, manufacture or delivery of even one unit or the modification, change or cancellation of any such order would have a material adverse effect on our quarterly and annual results of operations.

Our Implanters and Associated Technology are Subject to Export Regulations, Which Could Prevent or Delay the Sale of Such Products in Foreign Countries.

Certain technologies associated with our implanters are subject to export regulations administered by the U.S. Department of Commerce. Accordingly, we may be required to secure U.S. export licenses with

respect to sales of implanters or transfers of technologies to end users in certain foreign countries. This requirement could result in significant delays in, or the prevention of, sales of implanters or transfers of technology or other such technical data to customers in certain foreign countries. For example, the sale of an Ibis 1000 implanter and the corresponding transfer of technology to Simgui required an export license which took approximately one year to secure. There can be no assurance that if necessary, we will be able to secure such licenses in the future in a timely manner, or at all.

The Loss of Key Members of Our Scientific and Management Staff Could Delay and May Prevent the Achievement of Our Research, Development and Business Objectives.

Our Executive Chairman, Martin J. Reid, our Chief Executive Officer and President, Charles McKenna and other current officers and key members of our scientific staff are responsible for areas such as product development and improvements, and process improvement research, which are important to our specialized scientific business. The loss of, and failure to promptly replace, any member of this group could significantly delay and may prevent the achievement of our research, development and business objectives. While we have entered into an employment agreement with our Chairman, under certain circumstances he may be able to terminate his employment with us. Furthermore, although our employees are subject to certain confidentiality and non-competition obligations, our key personnel may terminate their employment at any time and may become employed by a competitor. The current composition of Ibis management and of its board of directors is subject to change and should not be unduly relied upon.

Changes in Accounting Standards Regarding Stock Option Plans Could Limit the Desirability of Granting Stock Options, Which Could Harm Our Ability to Attract and Retain Employees, and Have Also Negatively Impacted Our Results of Operations.

On December 2004, the Financial Accounting Standards Board issued FASB Statement No. 123R, Share Based Payment, which requires all companies to treat the fair value of stock options granted to employees as an expense. As a result of this standard, effective for periods beginning after January 1, 2006, we and other companies are required to record a compensation expense equal to the fair value of each stock option granted. This amounted to an expense of \$0.4 million in the fiscal year ending December 31, 2006. FAS123 (R) requirements reduce the attractiveness of granting stock options because of the additional expense associated with these grants, which have impacted and will continue to negatively impact our results of operations. Nevertheless, stock options are an important employee recruitment and retention tool, and we may not be able to attract and retain key personnel if we reduce the scope of our employee stock option program. In addition, this accounting standard could negatively impact our ability to use stock options as an employee recruitment and retention tool in the future.

We May Not Be Able to Successfully Produce Our Products on a Large-Scale.

We have limited manufacturing experience and have only manufactured limited quantities of oxygen implanters. To be successful, our products must be manufactured in commercial quantities, at acceptable costs. We may not be able to make the transition to high volume commercial production successfully. Future production in commercial quantities may create technical and financial challenges for us. Any difficulty or delay in constructing additional implanters, if needed, could have a material adverse effect on our business.

Our Latest Products Have Not Been Used in Large-Scale Long-Term Production and Consequently They May Not Be Able to Perform at the Availability Levels Expected for Continuous (7 Days per Week / 24 Hours per Day) Operation. (and May Be Subject to Unknown and Undetected Hardware or Software Failures).

Semiconductor equipment is subject to stringent mean time between failure (MTBF) and similar quality and reliability requirements. Although our equipment has previously been used in our own production environment for manufacturing SIMOX SOI wafers, and has been used in limited manufacturing runs in our customers sites, as our equipment is exposed to long-term extended production processing on an automated

basis, previously unknown and undetected hardware or software failures or combinations thereof may occur. Such failures could adversely affect our relationship with our customers.

We May Not Be Able to Use All of Our Existing or Future Manufacturing Capacity at a Profitable Level.

At times we may have the capacity to produce more oxygen implantation machines than we have orders for at such times. During such idle time we would continue to be responsible for the fixed costs of our facility and maintaining personnel, which could have a material adverse effect on our business.

We May Not Successfully Form or Maintain Desirable Strategic Alliances.

We believe we will need to form or maintain alliances with strategic partners for the manufacturing, marketing and distribution of our products. We may enter into these strategic alliances to satisfy customer demand and to address possible customer concerns regarding our being a sole source supplier. The limited number of reliable sources of supply other than Ibis may adversely affect or delay the integration of SIMOX-SOI wafers in mainstream commercial applications. We may not be successful in maintaining alliances or in forming and maintaining other alliances, including satisfying our contractual obligations with our strategic partners, and our partners may not devote adequate resources to manufacture, market and distribute these products successfully or may attempt to compete with us.

We May Have Difficulty Obtaining the Materials and Components Needed to Produce Our Products, and At Least One Major Component Has Only One Source.

Ibis manufactures its oxygen implanters from standard components and from components manufactured in-house or by other vendors according to our design specifications. Most raw materials and components not produced by us are available from more than one supplier. However, certain raw materials, components and subassemblies are obtained from a limited group of suppliers and at least one major component has a sole source. If we are unable to obtain such materials and components on a timely basis and on acceptable terms, if at all, our ability to complete orders could be significantly delayed and our business and results from operations could be materially and adversely affected. Semiconductor equipment is a growth industry and is very cyclical in nature, so if our suppliers experience an increase in demand from other semiconductor equipment manufacturers with much higher volumes than us, the lead-time and/or price for some of our components may increase. Although we have sought to reduce our dependence on these limited source suppliers and we have not experienced significant production delays due to unavailability or delay in procurement of component parts or raw materials to date, increased market demand for materials from, or disruption or termination of, certain of these sources could occur and such increased demand, disruptions, or termination could have a material adverse effect on our business and results of operations.

We May Not Be Able to Protect Our Patents and Proprietary Technology.

Our ability to compete effectively with other companies will depend, in part, on our ability to maintain the proprietary nature of our technology. Although we have been awarded or have filed applications for a number of patents in the U.S. and foreign countries, those patents may not provide meaningful protection, or pending patents may not be issued. Our competitors in both the U.S. and foreign countries, many of which have substantially greater resources and have made substantial investments in competing technologies, may have or may obtain patents that will prevent, limit or interfere with our ability to make and sell our products or infringe on our patents. The defense and prosecution of patent suits is both costly and time-consuming, even if the outcome is favorable to us. In addition, there is an inherent unpredictability regarding obtaining and enforcing patents. An adverse outcome in the defense of a patent suit could:

- subject us to significant liabilities to third parties,
- require disputed rights to be licensed from third parties, or
- require us to cease selling our products.

We also rely in large part on unpatented proprietary technology and others, including strategic partners, may independently develop the same or similar technology or otherwise obtain access to our proprietary technology. To protect our rights in these areas, we currently require all of our employees to enter

into confidentiality agreements. However, these agreements may not provide meaningful protection for our trade secrets, know-how or other proprietary information in the event of any unauthorized use, misappropriation or disclosure of such trade secrets, know-how or other proprietary information.

Others may claim that our technology infringes on their proprietary rights. Any infringement claims, even if without merit, can be time consuming and expensive to defend and may divert management's attention and resources. If successful, they could also require us to enter into costly royalty or licensing agreements. A successful claim of product infringement against us and our inability to license the infringed or similar technology could adversely affect our business.

If We Do Not Comply With All Applicable Environmental Regulations, We May be Subject to Fines and Other Sanctions.

We are subject to a variety of federal, state and local environmental regulations related to the storage, treatment, discharge or disposal of chemicals used in our operations and to the exposure of our personnel to occupational hazards. Although we believe that we have all permits necessary to conduct our business, the failure to comply with present or future regulations could result in fines being imposed on us, suspension of production or a cessation of operations. Our future activities may result in our being subject to additional regulations. Such regulations could require us to acquire significant equipment or to incur other substantial expenses to comply with regulations. Our failure to control the use of, or to restrict adequately the discharge of, hazardous substances or properly control other occupational hazards could subject us to substantial financial liabilities.

Our Stock Price is Highly Volatile.

The market prices for securities of high tech companies have been volatile. This volatility has significantly affected the market prices for these securities for reasons frequently unrelated to the operating performance of the specific companies. These broad market fluctuations may adversely affect the market price of our common stock. The market price for our common stock has fluctuated significantly. Since January 1, 1999, our stock price has fluctuated from a high of \$135.00 to a low of \$1.14. It is likely that the market price of our stock will continue to fluctuate in the future. Events or factors that may have a significant impact on our business and on the market price of our common stock include the following:

- quarterly fluctuations in operating results,
- difficulty in forecasting future results,
- announcements by us or our present or potential competitors,
- technological innovations or new commercial products or services by us or our competitors,
- the timing of receipt of orders and / or customer acceptance from major customers,
- product mix,
- product obsolescence,
- shifts in customer demand,
- our ability to manufacture and ship products on a cost-effective and timely basis,
- market acceptance of new and enhanced versions of our implanters,
- the evolving and unpredictable nature of the markets for the products incorporating SIMOX-SOI wafers,
- the amount of research and development expenses associated with new or enhanced products or implanters
- the cyclical nature of the semiconductor industry, and
- general market conditions.

Concentrated Ownership of Shares by One Shareholder and Its Affiliates Could Affect the Price of Our Common Stock.

As of February 28, 2007, our largest known shareholders include Special Situations Fund III QP, L.P and affiliates ("SSF"), which own an aggregate of 1,400,000 shares, or approximately 11% of our outstanding shares, as well as warrants to purchase an additional 1,050,000 shares. Subject to stockholder approval at the

Company's upcoming annual stockholders meeting, SSF may acquire an additional 1,978,377 shares and warrants to purchase an additional 1,483,781 shares. At present, SSF's ownership may have the effect of delaying, deferring or preventing a change in control of our company, or may directly or indirectly effect a change in control of our company. Moreover, the disposition by SSF of a substantial amount of its shares of our common stock in the open market could have an adverse impact on the market for our common stock.

Securities Litigation Could Result in Substantial Cost and Divert the Attention of Key Personnel, Which Could Seriously Harm Our Business.

Five class action securities lawsuits have been filed in the United States District Court in the District of Massachusetts against Ibis and its President and CEO: Martin Smolowitz v. Ibis Technology Corporation., et al., Civ. No. 03-12613 (RCL) (D. Mass.); Fred Den v. Ibis Technology Corporation., et al., Civ. No. 04-10060 (RCL) (D. Mass.); Weinstein v. Ibis Technology Corporation., et al., Civ. No. 04-10088 (RCL) (D. Mass.); George Harrison v. Ibis Technology Corporation., et al., Civ. No. 04-10286 (RCL) (D. Mass.); and Eleanor Pitzer v. Ibis Technology Corporation., et al, Civ. No. 04-10446 (RCL) (D. Mass.). On June 4, 2004, the Court entered an order consolidating these actions under the caption In re Ibis Technology Securities Litigation, C.A. 04-10446 RCL. On July 6, 2004, a consolidated amended class action complaint was filed which alleges, among other things, that the Company violated federal securities laws by allegedly making misstatements to the investing public relating to demand for certain Ibis products and intellectual property issues relating to the sale of the i2000 oxygen implanter. The plaintiffs are seeking unspecified damages. On August 5, 2004, we filed a motion to dismiss the consolidated amended complaint on the grounds, among others, that it failed to state a claim on which the relief could be granted. On September 22, 2005 the Magistrate Judge issued a report and recommendation that our motion be granted in part and denied in part. By Memorandum and Order dated March 31, 2006, the Court adopted the Report and Recommendation of the Magistrate Judge, granting in part and denying in part the Company's motion to dismiss. As a result of the Court's Order, plaintiffs filed a Conformed Consolidated Amended Complaint, which the Company answered on July 5, 2006. On October 2, 2006, the Company announced that it had reached an agreement in principle to settle the five class action securities lawsuits subject to, and contingent upon the negotiation and execution of a formal settlement agreement and final court approval after notice to the class. The proposed settlement, which provides for a payment to the plaintiffs of \$1.9 million and is to be funded entirely by the Company's insurance carrier, is not expected to have a material adverse effect on our business, results of operations or financial condition.

Ibis remains a nominal defendant in a shareholder derivative action filed in February 2004 against certain of its directors and officers: Louis F. Matheson, Jr. v. Martin J. Reid et al., Civ. Act. No. 04-10341 (RCL). The complaint alleges, among other things, that the alleged conduct challenged in the securities cases pending against Ibis in Massachusetts (described above) constitutes a breach of the defendants' fiduciary duties to Ibis. The complaint seeks unspecified money damages and other relief ostensibly on behalf of Ibis. On June 4, 2004, the Court entered an order staying this matter pending the entry of a final order on any motion filed by the Company to dismiss the consolidated class action complaint referenced above. On May 1, 2006, the parties jointly moved to continue the administrative stay of the Derivative Action until final disposition of all claims in the Consolidated Action, which the Court granted on July 26, 2006. This continuing litigation may be time-consuming, expensive and disruptive to normal business operations, and the outcome of litigation is difficult to predict.

Future Issuances of Preferred Stock May Diminish the Rights of Our Common Stockholders.

Our board of directors has the authority to approve the issue of up to 2.0 million shares of preferred stock and to determine the price, rights, privileges and other terms of these shares. The board of directors may exercise this authority without the approval of the stockholders. The rights of the holders of common stock may be adversely affected by the rights of the holders of any preferred stock that may be issued in the future.

Anti-takeover Provisions in Our Charter and Bylaws and Provisions of Massachusetts Law Could Make an Acquisition of the Business by a Third-Party Difficult.

Our restated articles of organization, as amended, and restated bylaws and the Massachusetts Business Corporation Law contain certain provisions that may make a third-party acquisition of us difficult, including:

- a classified board of directors, with three classes of directors each serving a staggered three-year term,
- the ability of the board of directors to issue preferred stock, and
- a 75% super-majority shareholder vote to amend certain provisions of our articles of organization and bylaws.

Limitations on Effectiveness of Controls.

The Company's management, including the Chief Executive Officer and President and the Chief Financial Officer, does not expect that our internal controls will prevent all errors and intentional misrepresentations. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues, if any, within the Company have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the control. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and no assurance can be given that any design will succeed in achieving its stated goals under all potential future conditions; over time, controls may become inadequate because of changes in conditions, or the degree of compliance with the policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or intentional conduct may occur and not be detected.

Evolving Regulation of Corporate Governance and Public Disclosure May Result in Additional Expenses and Continuing Uncertainty.

Changing laws, regulations and standards relating to corporate governance and public disclosure, including the Sarbanes-Oxley Act of 2002 and related SEC regulations as well as the listing standards of the NASDAQ Stock Market, are creating uncertainty for public companies. We continually evaluate and monitor developments with respect to new and proposed rules and cannot predict or estimate the amount of the additional costs we may incur or the timing of such costs. These new or changed laws, regulations and standards are subject to varying interpretations, in many cases due to their lack of specificity, and as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices. We are committed to maintaining high standards of corporate governance and public disclosure. As a result, we have invested resources to comply with evolving laws, regulations and standards. This investment may result in increased general and administrative expenses and a diversion of management time and attention from revenue-generating activities to compliance activities. If our efforts to comply with new or changed laws, regulations and standards differ from the activities intended by regulatory or governing bodies due to ambiguities related to practice, regulatory authorities may initiate legal proceedings against us and we may be harmed.

Item 2. PROPERTIES

Ibis' corporate office and manufacturing site are located at a leased facility in Danvers, Massachusetts. The equipment manufacturing business and the engineering and wafer processing research and development efforts are housed in approximately 32,000 square feet which includes a modernized cleanroom that contains metrology equipment, cleaning equipment and an implantation equipment manufacturing and service area. The lease on the space we currently occupy was renewed during 2006 and will expire on June 30, 2011, and contains an option to renew for five years.

Item 3. LEGAL PROCEEDINGS

Five class action securities lawsuits have been filed in the United States District Court in the District of Massachusetts against Ibis and its President and CEO: Martin Smolowitz v. Ibis Technology Corporation, et al., Civ. No. 03-12613 (RCL) (D. Mass.); Fred Den v. Ibis Technology Corporation, et al., Civ. No. 04-10060 (RCL) (D. Mass.); Weinstein v. Ibis Technology Corporation, et al., Civ. No. 04-10088 (RCL) (D. Mass.); George Harrison v. Ibis Technology Corporation, et al., Civ. No. 04-10286 (RCL) (D. Mass.); and Eleanor Pitzer v. Ibis Technology Corporation, et al, Civ. No. 04-10446 (RCL) (D. Mass.). On June 4, 2004, the Court entered an order consolidating these actions under the caption In re Ibis Technology Securities Litigation, C.A. 04-10446 RCL. On July 6, 2004, a consolidated amended class action complaint was filed which alleges, among other things, that the Company violated federal securities laws by allegedly making misstatements to the investing public relating to demand for certain Ibis products and intellectual property issues relating to the sale of the i2000 oxygen implanter. The plaintiffs are seeking unspecified damages. On August 5, 2004, we filed a motion to dismiss the consolidated amended complaint on the grounds, among others, that it failed to state a claim on which the relief could be granted. On September 22, 2005 the Magistrate Judge issued a report and recommendation that our motion be granted in part and denied in part. By Memorandum and Order dated March 31, 2006, the Court adopted the Report and Recommendation of the Magistrate Judge, granting in part and denying in part the Company's motion to dismiss. As a result of the Court's Order, plaintiffs filed a Conformed Consolidated Amended Complaint, which the Company answered on July 5, 2006. On October 2, 2006, the company announced that it had reached an agreement in principle to settle the five class action securities lawsuits subject to, and contingent upon the negotiation and execution of a formal settlement agreement and final court approval after notice to the class. The proposed settlement, which provides for a payment to the plaintiffs of \$1.9 million and is to be funded entirely by the Company's insurance carrier, is not expected to have a material adverse effect on our business, results of operations or financial condition.

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Item 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

No matters were submitted to stockholders during the fourth quarter of the year ended December 31, 2006.

PART II

Item 5. MARKET FOR THE REGISTRANT'S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS

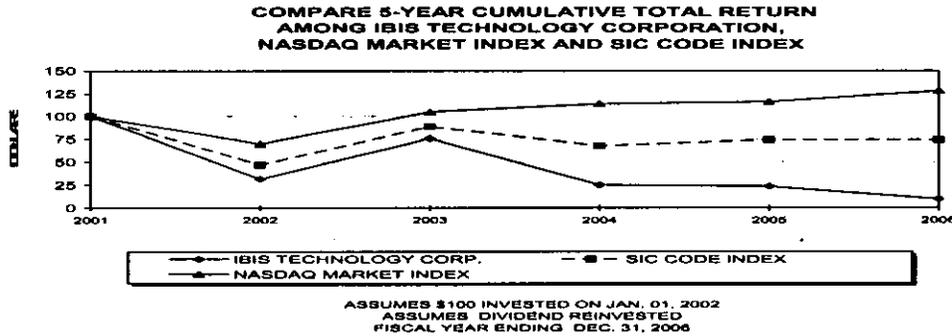
Market Information

Ibis' Common Stock began trading on May 20, 1994 on the Nasdaq SmallCap Market and on the Boston Stock Exchange. Prior to May 20, 1994, there was no public market for the Common Stock or any other securities of Ibis. On April 4, 1996, Ibis commenced trading on the Nasdaq National Market and is currently trading on the Nasdaq Global Market. Our Common Stock is traded under the symbol "IBIS." The following table sets forth, for the periods so indicated the high and low sale prices for the Common Stock as reported by the Nasdaq National Market or Nasdaq Global Market, as applicable.

	<u>Common Stock</u>	
	<u>High</u>	<u>Low</u>
2005:		
First Quarter	\$ 4.14	\$ 2.20
Second Quarter.....	\$ 2.27	\$ 1.14
Third Quarter.....	\$ 2.63	\$ 1.67
Fourth Quarter.....	\$ 3.55	\$ 1.23
2006:		
First Quarter	\$ 4.50	\$ 2.58
Second Quarter.....	\$ 3.78	\$ 2.20
Third Quarter.....	\$ 3.65	\$ 1.99
Fourth Quarter.....	\$ 3.56	\$ 1.32

Stock Performance Graph

The following graph compares the annual cumulative total stockholders return (assuming reinvestment of dividends) from investing \$100 on December 31, 2001 and plotted at the end of each fiscal year thereafter, in each of (i) the Company's Common Stock, (ii) the Nasdaq Stock Market, and (iii) the Media General Financial Services SIC Code Index 3674-Semiconductors, Related Devices-which consists of other companies on the Common Stock, and no dividends are included in the representation of the Company's performance. The stock price performance on the graph below is not necessarily indicative of future price performance.



COMPARISON OF CUMULATIVE TOTAL RETURN OF ONE OR MORE COMPANIES, PEER GROUPS, INDUSTRY INDEXES AND/OR BROAD MARKETS

----- FISCAL YEAR ENDING -----

COMPANY/INDEX/MARKET	12/31/2001	12/31/2002	12/31/2003	12/31/2004	12/30/2005	12/29/2006
Ibis Technology Corp	100.00	31.61	75.66	25.02	23.54	9.95
Semiconductors, Related Device	100.00	47.05	88.54	67.76	74.28	73.99
NASDAQ Market Index	100.00	69.75	104.88	113.70	116.19	128.12

The Graph is not "soliciting material" under Regulation 14A or 14C of the rules promulgated under the Securities Exchange Act of 1934, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference in any filing of the Company under the Securities Act of 1933, as amended, or the Exchange Act whether made before or after the date hereof and irrespective of any general incorporation language in any such filing. Information used in the graph was obtained from Hemscott, Inc., a source believed to be reliable, but the company is not responsible for any errors or omissions in such information

Stockholders

As of February 28, 2007, there were approximately 141 stockholders of record of the 12,315,481 outstanding shares of Common Stock and approximately 4,940 beneficial owners of the Common Stock.

Dividends

Ibis has never declared or paid any dividends and does not anticipate paying such dividends on its Common Stock in the foreseeable future. Ibis currently intends to retain any future earnings for use in its business. The payment of any future dividends will be determined by the Board of Directors in light of

conditions then existing, including our financial condition and requirements, future prospects, restrictions in financing agreements, business conditions and other factors deemed relevant by the Board of Directors.

Recent Sales of Unregistered Securities

In February 2007, Ibis issued 1,400,000 shares of common stock and warrants to purchase 1,050,000 shares of common stock pursuant to a purchase agreement entered into by the Company with Special Situation Funds to provide financing for its operations. The issuance was in connection with the first closing of a two-tranche financing. The second closing, which is subject to stockholder approval, is expected to occur after our annual meeting, which is expected to be held on May 10, 2007. The securities were sold in a private placement pursuant to Regulation D of the Securities Act. Ibis has agreed to file a registration statement covering the resale of the shares of common stock acquired by the investors and shares of common stock issuable upon exercise of the warrants acquired by the investors. The warrants are immediately exercisable for a term of five years at an exercise price of \$1.50 per share.

As consideration for its services as placement agent in connection with the February 2007 financing, Ibis paid TN Capital Equities, Ltd. a cash fee equal to 5% of the gross proceeds received by the company at the first closing. In addition, Ibis issued warrants to purchase 74,434 shares of common stock. The warrants have a term of five years, are exercisable immediately and contain registration rights on the same terms and conditions as those issued to the investors in the financing. In connection with the second closing, which is subject to stockholder approval, we will pay the placement agent additional cash fee and issue additional warrants, each equal to 5% of the gross proceeds received in the second closing.

Item 6. SELECTED FINANCIAL DATA

The selected financial data presented below under the captions "Statement of Operations Data" and "Balance Sheet Data" for, and as of the end of each of the years in the five-year period ended December 31, 2006, are derived from the financial statements of Ibis, which have been audited by KPMG LLP, independent registered public accounting firm. The audited balance sheets at December 31, 2005 and 2006 and the related statements of operations, stockholders equity and cash flows for each of the years in the three-year period ended December 31, 2006 and the independent registered public accounting firm's report thereon, are included elsewhere in this Annual Report on Form 10-K. The data set forth below should be read in conjunction with Ibis' financial statements, the related notes thereto and "Management's Discussion and Analysis of Financial Condition and Results of Operations" included elsewhere in this Annual Report on Form 10-K. The historical results are not necessarily indicative of the operating results to be expected in the future.

	Years Ended December 31,				
	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>
	(In thousands, except for per share data)				
Statement of Operations Data:					
License and other revenue	\$ 283	\$ 660	\$ 391	\$ 324	\$ 560
Equipment revenue	<u>6,103</u>	<u>8,782</u>	<u>7,535</u>	<u>278</u>	<u>13,427</u>
Total revenue (2)	<u>6,386</u>	<u>9,442</u>	<u>7,926</u>	<u>602</u>	<u>13,987</u>
Cost of license and other revenue	115	45	15	--	--
Cost of equipment revenue	<u>3,868</u>	<u>4,331</u>	<u>4,722</u>	<u>750</u>	<u>5,893</u>
Total cost of revenue	<u>3,983</u>	<u>4,376</u>	<u>4,737</u>	<u>750</u>	<u>5,893</u>
Gross profit (loss)	<u>2,403</u>	<u>5,066</u>	<u>3,189</u>	<u>(148)</u>	<u>8,094</u>
Operating expenses:					
General and administrative	2,174	2,337	2,221	2,217	2,401
Marketing and selling	1,510	1,236	1,521	1,319	1,096
Research and development	<u>6,258</u>	<u>5,381</u>	<u>5,329</u>	<u>5,993</u>	<u>5,396</u>
Total operating expenses	<u>9,942</u>	<u>8,954</u>	<u>9,071</u>	<u>9,529</u>	<u>8,893</u>
Loss from operations	<u>(7,539)</u>	<u>(3,888)</u>	<u>(5,882)</u>	<u>(9,677)</u>	<u>(799)</u>
Total other income	255	27	242	218	1,205
Income (loss) before income taxes	(7,284)	(3,861)	(5,640)	(9,459)	406
Income tax expense (benefit)	<u>1</u>	<u>(8)</u>	<u>1</u>	<u>1</u>	<u>1</u>
Income (loss) from continuing operations	<u>(7,285)</u>	<u>(3,853)</u>	<u>(5,641)</u>	<u>(9,460)</u>	<u>405</u>
Discontinued operations (2):					
Loss from discontinued operations	(6,811)	(17,597)	(3,179)	--	--
Loss on disposal	<u>--</u>	<u>--</u>	<u>(2,099)</u>	<u>215</u>	<u>--</u>
Income (loss) from discontinued operations	<u>(6,811)</u>	<u>(17,597)</u>	<u>(5,278)</u>	<u>215</u>	<u>--</u>
Net income (loss)	<u>\$(14,096)</u>	<u>\$(21,450)</u>	<u>\$(10,919)</u>	<u>\$(9,245)</u>	<u>\$ 405</u>
Income (loss) from continuing operations per common share (1)	<u>\$ (0.79)</u>	<u>\$ (0.40)</u>	<u>\$ (0.53)</u>	<u>\$ (0.88)</u>	<u>\$ 0.04</u>
Net income (loss) per common share (1)	<u>\$(1.53)</u>	<u>\$(2.21)</u>	<u>\$(1.02)</u>	<u>\$(0.86)</u>	<u>\$ 0.04</u>
Weighted average common shares					
outstanding basic	9,208	9,728	10,666	10,738	10,853
Weighted average common shares outstanding	9,208	9,728	10,666	10,738	10,980

	As of December 31,				
	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>
	(In thousands)				
Balance Sheet Data:					
Working capital	\$ 5,551	\$ 12,607	\$ 12,415	\$ 5,145	\$ 7,494
Total assets	51,699	35,343	22,283	19,992	13,789
Long-term debt, less current portion	1,184	--	--	--	--
Total liabilities	12,944	4,226	1,863	8,695	1,534
Stockholders' equity	38,755	31,117	20,420	11,297	12,255

(1) Computed on the basis described for net earnings (loss) per common share in Note 2(g) of Notes to Financial Statements.

(2) Historically, much of the Company's revenue was derived from research and development contracts and sales of wafers for military and commercial applications. In mid-2004, we discontinued the wafer manufacturing portion of our business in order to focus exclusively on our equipment business. Wafer product sales, as well as wafer revenue reported in subsequent periods, are reported net of associated costs, as loss from discontinued operations. We will maintain a research and development effort relating to wafers for our equipment improvement programs. This revision to our business strategy could materially affect the comparability of the information reflected in the above selected financial data.

Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion should be read in conjunction with the Financial Statements of Ibis (including Notes thereto) and Selected Financial Data included elsewhere in this Annual Report on Form 10-K.

OVERVIEW

Ibis Technology Corporation ("Ibis") was formed in October 1987 and commenced operations in January 1988. Ibis' initial activities consisted of producing and selling SIMOX-SOI wafers and conducting research and development activities. This effort led to the development of a proprietary oxygen implanter, the Ibis 1000, which we began selling in 1996, the next generation implanter, the i2000™, which we began selling in 2002, and also to other proprietary process technology.

Initially, much of our revenue was derived from research and development contracts and sales of wafers for military applications. Over the years, the Company decided to focus its business operations and sales strategy on the manufacture and sale of our implanter equipment products and de-emphasized the sale of wafers given that, among other things, we believed that the wafer manufacturing companies were in the best position to manufacture SIMOX-SOI wafers using our implanter equipment in light of their expertise and operating efficiencies. As we announced on July 21, 2004, we exited the wafer manufacturing business. Wafer product sales, as well as wafer revenue reported in subsequent periods, are reported net of associated costs, as loss from discontinued operations on our income statement. The Company believes that its decision to discontinue the wafer business permits broader strategic collaboration efforts between Ibis and the wafer manufacturers. We reach this conclusion for a number of reasons. First, we believe that tremendous price pressure exists on commodity type products, such as silicon wafers, and this pressure is already eroding future price expectations of SOI wafers. Because the starting wafer represents a significant component of the SOI wafer cost, we believe that silicon wafer manufacturers should have a natural cost structure advantage leading to a higher gross margin, and therefore should be able to manage such price pressure better than stand-alone SOI producers that do not also produce the silicon wafer itself. Second, we expect that the price pressure will encourage silicon wafer manufacturers to seek out higher margin products, like SOI wafers, to increase their margins. Third, we believe that silicon wafer manufacturers have traditionally developed proprietary intellectual property in silicon materials science, which can be applied to designing optimal starting wafers for SOI production. We believe that this should give them an advantage in both minimizing wafer cost and maximizing SOI wafer quality and yield. Fourth, our experience suggests that silicon wafer manufacturers already have a well-developed infrastructure for manufacturing, sale and marketing of large volumes of substrates. Lastly, we believe that there is greater efficiency in producing the SOI wafer as part of the wafer manufacturers existing product flow, specifically avoiding the need to repackage, re-clean, re-inspect and re-ship substrates twice, once as starting silicon wafers, and a second time as SOI wafers. Therefore, as a result of these trends, we expect our ultimate customers will be drawn from these silicon wafer manufacturers and we plan to focus a majority of our technical and marketing resources on the sale of implanters to the leading silicon wafer manufacturers and our key customers in the semiconductor industry who we believe are the leaders in the adoption of SOI technology. We expect that implanter sales to chipmakers should be minimal, and that these sales will be focused on SOI processes that the chipmaker wishes to keep proprietary, such as selective (or patterned) SIMOX, or other specialty substrates.

Our fundamental SIMOX-SOI technology has been developed, refined, and tested over the last dozen years. In 2002, we introduced the current generation of SIMOX-SOI technology, which included our second-generation oxygen implanter (i2000™) and the MLD wafer process which was licensed to us by IBM. We believe that the i2000's flexibility, automation and operator-friendly controls allow this tool to produce a wide range of SIMOX-SOI wafer products using a range of manufacturing processes, including Advantox® MLD

IBIS TECHNOLOGY CORPORATION

PART I - ITEM 2

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS'

and Advantox MLD-UT wafers. We also believe the ability of the i2000 implanter to produce twelve-inch (or 300 mm) SIMOX-SOI wafers coupled with the MLD process positions us to capitalize on the growing SOI market. In 1999, we commenced a program to design and develop the i2000, introduced it in March 2002 and began shipping 300 mm wafers implanted from this machine shortly thereafter. Customers who purchase the i2000 can utilize more than one SIMOX wafer manufacturing process on the implanter including the IBM MLD process, when licensed, as well as other SIMOX-SOI wafer manufacturing processes that do not require the IBM license.

Because we have sold only a limited number of implanters to date on an irregular basis, the recognition of revenue from the sale of even one implanter is likely to result in a significant increase in the revenue during that quarter. We recognize implanter revenue in accordance with SAB 104, which includes, among other criteria, the shipment and final customer acceptance of the implanter at the customer's location. As a result, deferral of implanter revenue will be recorded on our balance sheet until the Company is able to meet these criteria.

In January 2005, we announced the booking (i.e. receipt and mutual agreement of terms) of an order for one Ibis i2000 SIMOX implanter from SUMCO, a leading international silicon wafer manufacturer. This system was factory accepted and shipped in the second quarter 2005 and we received final customer acceptance of this tool at the customer's site in March 2006. In October of 2005 we received a second order for an i2000 SIMOX implanter from SUMCO and negotiated a master purchase agreement that will govern the general commercial terms of future orders from SUMCO. This implanter was factory accepted by SUMCO at Ibis' facility in the first quarter of 2006. The implanter was shipped in April 2006 and customer acceptance at the customer's facility occurred in August 2006, with the revenue recognized in the quarter ended September 30, 2006.

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Critical Accounting Policies

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that have a significant impact on the results we report in our financial statements. Some of our accounting policies require us to make difficult and subjective judgments, often as a result of the need to make estimates on matters that are inherently uncertain. Our most critical accounting policies include: revenue recognition, inventory valuation and reserves, and the assessment of long-lived asset impairment. Actual results may differ from these estimates under different assumptions or conditions. Below, we discuss these policies further, as well as the estimates and judgments involved.

Revenue Recognition. We recognize revenue from equipment sales and the sales of spare parts when all of the following criteria have been met: (1) evidence exists that the customer is bound to the transaction; (2) the product has been delivered to the customer and, when applicable, the product has been installed and accepted by the customer; (3) the sales price to the customer has been fixed or is determinable; and (4) collectibility of the sale price is reasonably assured. We recognize revenue from implanter sales upon final customer acceptance at the customer's site. Revenue derived from contracts and services is recognized upon performance. Significant management judgments and estimates must be made and used in connection with revenue recognized in any period. Management analyzes various factors, including a review of specific transactions, historical experience, credit worthiness of customers and current market and economic conditions. Changes in judgment based upon these factors could impact the timing and amount of revenue and cost recognized.

Inventory Valuation and Reserves. Our policy for the valuation of inventory, including the determination of obsolete or excess inventory, requires us to forecast the future demand for our products within specific time horizons, generally twelve months or less. If our forecasted demand for specific products is greater than actual demand and we fail to reduce manufacturing output accordingly, we could be required to record additional inventory reserves, which would have a negative impact on our gross margin. We have reserved for obsolescence when engineering changes or other technological advances indicate that obsolescence has occurred.

Valuation of Long-Lived Assets. Ibis reviews the valuation of long-lived assets, including property and equipment and licenses, under the provisions of SFAS No. 144, Accounting for Impairment or Disposal of Long-Lived Assets. Management is required to assess the recoverability of its long-lived assets or asset groups whenever events and circumstances indicate that the carrying value may not be recoverable. Based on current conditions, factors we consider important and that could trigger an impairment review include the following:

- Significant underperformance relative to expected historical or projected future operating results,
- Significant changes in the manner of our use of the acquired assets or the strategy of our overall business,
- Significant negative industry or economic trends,
- Significant decline in our stock price for a sustained period, and
- Our market capitalization relative to book value.

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In accordance with SFAS No. 144, when we determine that the carrying value of applicable long-lived assets may not be recoverable based upon the existence of one or more of the above indicators of impairment, we evaluate whether the carrying amount of the asset exceeds the sum of the undiscounted cash flows expected to result from the use and eventual disposition of that asset or asset group. If such a circumstance exists, we would measure an impairment loss to the extent the carrying amount of the particular long-lived asset or group exceeds its fair value. We would determine the fair value based on a projected discounted cash flow method using a discount rate determined by our management to be commensurate with the risk inherent in our current business model. We adopted SFAS No. 144 during the first quarter of 2002 and during the fourth quarter of 2003 we recognized an impairment charge of \$11.1 million for our 200 mm and smaller SIMOX wafer production line. We determined the fair market value of the assets as described above. The remaining value of this line, along with other assets associated with wafer manufacturing were recorded as a loss from discontinued operations in 2004 that resulted in a charge of \$5.3 million comprised of disposal costs of \$2.1 million and losses associated with the wafer manufacturing operation of \$3.2 million. The impairment charge of \$11.1 million was composed of \$10.9 million for property and equipment and \$.2 million for inventory related to the Company's smaller size wafer manufacturing business. The property and equipment had an acquired value of \$24.2 million, accumulated depreciation of \$12.5 million, and net book value of \$11.7 million. An impairment charge of \$10.9 million reduced this to a carrying value of \$.8 million. We have physically scrapped the majority of the equipment included in the assets upon which the impairment charge was based, on discontinuance of the wafer operation where this equipment was used. The remaining book value of the assets held for sale of \$0.1 million, were written off during 2005. We are continuing to attempt to sell at nominal values several remaining pieces of equipment that third parties have indicated interest in.

Results of Operations

Fiscal Year Ended December 31, 2006 Compared to Fiscal Year Ended December 31, 2005

License and Other Revenue. License and other revenue for the fiscal year ended December 31, 2006 was \$0.6 million compared to \$0.3 million for the fiscal year ended December 31, 2005, an increase of \$0.3 million, or 73%. This increase is primarily attributable to a new sublicense agreement valued at \$0.2 million related to equipment technology in the year ended December 31, 2006.

Equipment Revenue. Equipment revenue represents revenue recognized from the sale of implanters, spare parts and field service revenue. Equipment revenue increased to \$13.4 million for the fiscal year ended December 31, 2006 from \$0.3 million for the fiscal year ended December 31, 2005, an increase of \$13.1 million. Equipment revenue in 2006 included revenue recognized for two i2000 implanters for \$13.0 million as compared to no implanter revenue recognition in 2005.

Field service revenue accounted for \$0.3 million, or 2% of equipment revenue for the fiscal year ended December 31, 2006 as compared to \$0.1 million, or 34% of equipment revenue for the fiscal year ended December 31, 2005. Sales of spare parts accounted for \$0.1 million, or 1% of equipment revenue for the fiscal year ended December 31, 2006 as compared to \$0.2 million, or 66% of equipment revenue, for the fiscal year ended December 31, 2005. Sales of spare parts fluctuate depending on customer demand and when the warranties expire on individual pieces of equipment. Warranty expense is calculated on our anticipated replacement costs for equipment accepted by our customers over a one or two year contract period.

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Total Sales and Revenue. Total sales and revenue for the fiscal year ended December 31, 2006 was \$14.0 million, an increase of \$13.4 million, from \$0.6 million for the fiscal year ended December 31, 2005. The increase is due to revenue recognition for two i2000 implanters of \$13.0 million for the fiscal year ended December 31, 2006 along with increased license revenue of \$0.2 million and increased service revenue of \$0.2 million which was offset by a decrease in spare parts revenue of \$0.1 million.

Total Cost of Sales and Revenue. Cost of license and other revenue consists of labor and materials expended during the twelve month period. There were no license costs or costs for other revenue during the period.

Cost of equipment revenue represents the cost of equipment including manufacturing labor, the cost for spare parts, and the cost of labor incurred for field service. Cost of equipment revenue for the fiscal year ended December 31, 2006 was \$5.9 million, as compared to \$0.8 million for the fiscal year ended December 31, 2005, an increase of \$5.1 million. This increase of \$5.1 million was primarily due to the costs associated with the recognition of revenue for the two i2000 implanters during the period ended December 31, 2006.

The gross margin for all sales was a positive 58% for the fiscal year ended December 31, 2006, as compared to a negative gross margin of 25% for the fiscal year ended December 31, 2005. This increase in the gross margin for all sales is attributable to the approximate gross margin of 55% for the two i2000 implanter sales recognized in the fiscal year ended December 31, 2006 and \$0.6 million reduction in cost from the expiration of warranties on two i2000 implanters in the fiscal year ended December 31, 2006.

General and Administrative Expenses. General and administrative expenses for the fiscal year ended December 31, 2006 were \$2.4 million as compared to \$2.2 million for the fiscal year ended December 31, 2005, an increase of \$0.2 million or 8%. This is due to \$0.2 million in stock based compensation expense which impacted the financial statements in compliance with the new accounting rule in the fiscal year ended December 31, 2006.

Marketing and Selling Expenses. Marketing and selling expenses for the fiscal year ended December 31, 2006 were \$1.1 million as compared to \$1.3 million for the fiscal year ended December 31, 2005, a decrease of \$0.2 million, or 17%. The decrease in marketing and selling expenses is a result of decreased payroll and payroll related expenses of \$0.2 million from headcount reductions.

Research and Development Expenses. Internally funded research and development expenses decreased by \$0.6 million, or 10% to \$5.4 million for the fiscal year ended December 31, 2006 from \$6.0 million for the fiscal year ended December 31, 2005. This decrease was due to a reduction in wafer research and development costs of \$0.3 million. In addition, reduced payroll and payroll related expenses of \$0.3 million offset by \$0.1 million associated with FAS 123(R) stock based compensation expense contributed to these results for the fiscal year ended December 31, 2006.

Other Income. Total other income for the fiscal year ended December 31, 2006 was \$1.2 million as compared to \$0.2 million for the fiscal year ended December 31, 2005, an increase of \$1.0 million. The increase in total other income is attributed to \$0.8 million received from the expiration of an option to place an order for an additional implanter prior to the end of 2006. In addition, interest income increased by \$0.1

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million due to the increase in interest rates and miscellaneous income increased by \$0.1 million from the sales of excess material and equipment.

Discontinued Operations. There was no gain or loss shown for the fiscal year ended December 31, 2006. For the fiscal year ended December 31, 2005, the Company recognized a gain on disposal of \$0.2 million consisting primarily of the sale of excess equipment, sale of wafer materials previously written off and an accrual adjustment related to sales tax.

Taxes. The Company had federal net operating loss and general business credit carryovers of approximately \$87.1 million and \$1.2 million, respectively, at December 31, 2006, that may be used to offset future taxable income through 2026. State net operating loss and credit carryovers of \$52.4 million and \$1.2 million, respectively, have varying expiration dates. Included in the total deferred tax assets, offset by the valuation allowance, was \$3.2 million related to the net operating loss carryover resulting from the exercise of employee stock options the tax benefit of which, when recognized, will be accounted for as a credit to additional paid-in capital rather than a reduction of income tax expense. Net operating loss carryovers and other tax attributes may be limited in the event of certain changes in ownership interests. The Company recorded and paid Massachusetts and California excise and corporate tax which in aggregate was \$1,256 for 2006.

Fiscal Year Ended December 31, 2005 Compared to Fiscal Year Ended December 31, 2004

Contract and Other Revenue. Contract and other revenue for the fiscal year ended December 31, 2005 was \$0.3 million compared to \$0.4 million for the fiscal year ended December 31, 2004, a decrease of \$0.1 million, or 17%. This decrease is attributable to a reduction in royalty fees related to equipment technology in the year ended December 31, 2005.

Equipment Revenue. Equipment revenue represents revenue recognized from the sale of implanters, spare parts and field service revenue. Equipment revenue decreased to \$0.3 million for the fiscal year ended December 31, 2005 from \$7.5 million for the fiscal year ended December 31, 2004, a decrease of \$7.2 million, or 96%. Equipment revenue in 2005 included no implanter revenue. The implanter revenue recognized in the fiscal year ended December 31, 2004 was for \$7.0 million. Field service revenue accounted for \$0.1 million, or 34% of equipment revenue for the fiscal year ended December 31, 2005 as compared to \$0.4 million, or 5% of equipment revenue for the fiscal year ended December 31, 2004. Sales of spare parts accounted for \$0.2 million, or 66% of equipment revenue for the fiscal year ended December 31, 2005 as compared to \$0.2 million, or 2% of equipment revenue, for the fiscal year ended December 31, 2004. Sales of spare parts fluctuate depending on customer demand and when the warranties expire on individual pieces of equipment. Warranty expense is calculated on our anticipated replacement costs for equipment accepted by our customers over a one or two year contract period.

Total Sales and Revenue. Total sales and revenue for the fiscal year ended December 31, 2005 were \$0.6 million, a decrease of \$7.3 million, or 92%, from \$7.9 million for the fiscal year ended December 31, 2004, as described above.

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Total Cost of Sales and Revenue. Cost of contract and other revenue consists of labor and materials expended during the twelve month period. There were no contract costs or costs for other revenue during the period.

Cost of equipment revenue represents the cost of equipment, the cost for spare parts, and the cost of labor incurred for field service. Cost of equipment revenue for the fiscal year ended December 31, 2005 was \$0.8 million, as compared to \$4.7 million for the fiscal year ended December 31, 2004, a decrease of \$3.9 million, or 84%. This decrease is primarily due to the fact that no implanters were sold during the period ended December 31, 2005.

The total cost of sales and revenue for the fiscal year ended December 31, 2005 was \$0.8 million, as compared to \$4.7 million for the fiscal year ended December 31, 2004, a decrease of \$3.9 million, or 84%. The gross margin for all sales was a negative 25% for the fiscal year ended December 31, 2005, as compared to a positive gross margin of 40% for the fiscal year ended December 31, 2004. This decrease in the gross margin for all sales is attributable to no implanter gross margin for the fiscal year ended December 31, 2005 as compared to the approximate gross margin of 50% for the i2000 implanter sale recognized in the fiscal year ended December 31, 2004 as well as the unabsorbed manufacturing costs and the decrease in cost of inventory reserves.

General and Administrative Expenses. General and administrative expenses for the fiscal year ended December 31, 2005 were \$2.2 million as compared to \$2.2 million for the fiscal year ended December 31, 2004, or no net change. This is due to decreased securities compliance, decreased premiums on Director's & Officers liability insurance and decreased tax expenses of \$0.1 million each offset by increased professional services, increased payroll and payroll related expenses and increases in other miscellaneous expenses of \$0.1 million each.

Marketing and Selling Expenses. Marketing and selling expenses for the fiscal year ended December 31, 2005 were \$1.3 million as compared to \$1.5 million for the fiscal year ended December 31, 2004, a decrease of \$0.2 million, or 13%. The decrease in marketing and selling expenses is a result of decreased payroll and payroll related expenses of \$0.1 million and decreased miscellaneous expenses of \$0.1 million.

Research and Development Expenses. Internally funded research and development expenses increased by \$0.7 million, or 12% to \$6.0 million for the fiscal year ended December 31, 2005 from \$5.3 million for the fiscal year ended December 31, 2004. This increase represents the wafer research and development costs of \$0.6 million that were previously part of the cost of sales during the time we manufactured wafers for sale, but are now supporting equipment development; as well as increased repair and maintenance of \$ 0.2 million and increased R&D material expenses of \$0.2 million which were offset by the reduction in depreciation expenses associated with consolidation of our facilities of \$0.3 million.

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Other Income. Total other income for the fiscal year ended December 31, 2005 and fiscal year ended December 31, 2004 were \$200,000 in each year. Changes within total other income relate to the expiration in the period ended December 31, 2004 of a wafer volume option of \$0.2 million that was associated with an asset obtained by the wafer production group from a wafer customer. This volume option was to be used on orders received over a one-year period. Since the time expired, and no orders were received, the Company reduced its liability and recognized the amount in income, as no further obligation exists. This was offset by the increase in interest income of \$0.1 million in the period ended December 31, 2005 due to increased interest rates, and reduced interest expense and other miscellaneous expenses of \$0.1 million.

Discontinued Operations. The loss on disposal in 2004 was \$2.1 million and consisted of \$0.9 million in net fixed asset impairments, \$1.2 million in inventory impairments and employee severance pay of \$78 thousand. In 2005, the Company recognized a gain on disposal of \$0.2 million consisting primarily of the sale of excess equipment, sale of wafer materials previously written off and an accrual adjustment related to sales tax.

Taxes. Ibis had federal net operating loss and general business credit carryovers of approximately \$88.8 million and \$1.3 million, respectively, at December 31, 2005, that may be used to offset future taxable income through 2025, subject to the Company's profitability over that time and limits that certain ownership changes, as defined in the Internal Revenue Code, have regarding the amount of net operating loss carryforwards that can be utilized annually to offset future taxable income. State net operating loss and credit carryovers of \$63.4 million and \$1.3 million, respectively, have varying expiration dates. Net deferred tax assets include \$3.2 million related to the net operating loss carryover results from the exercise of employee stock options, the tax benefit of which, when recognized, will be accounted for as a credit to additional paid-in capital rather than a reduction of income tax expense. Net operating loss carryovers and other tax attributes may be limited in the event of certain changes in ownership interests. The Company recorded and paid Massachusetts and California excise and corporate tax which in aggregate was \$1,256 for 2005.

Liquidity and Capital Resources

As of December 31, 2006, Ibis had cash and cash equivalents of \$4.8 million, including the final payment of \$1.1 million for the second i2000 SIMOX implanter accepted by SUMCO in the fiscal year ended December 31, 2006.

During the fiscal year ended December 31, 2006, Ibis used \$2.1 million of cash for operating activities of continuing operations as compared to \$1.2 million in 2005. To date, Ibis' working capital requirements have been funded primarily through debt (capital leases) and equity financings, including the February 2007 financing discussed below. The principal uses of cash during the fiscal year ended December 31, 2006, as described in the Statement of Cash Flows on page 46 of this 10K, were to fund operations and additions to property and equipment. At December 31, 2006, Ibis had commitments to purchase approximately \$0.2 million in material. Our headcount for the year ended December 31, 2006 was 45 employees.

The Company's management believes that it will have sufficient cash resources to support current operations until at least June 2008. This expectation however, is based on the Company's current operating plan and general sales outlook, each of which may change rapidly. In January, 2007 the Company announced that to conserve cash it was reducing its operating expenses by approximately 40% which involved cost cutting

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measures consisting of headcount reductions, consulting at a neighboring business for a minimum of six months under a staffing services agreement, salary reductions and reducing consumable expenses. On February 16, 2007, the Company entered into a purchase agreement pursuant to which it agreed to sell unregistered

shares of its common stock and warrants exercisable for common stock to Special Situation Funds for an aggregate purchase price of \$5.3 million in a two-tranche financing. The first closing, at which the Company received approximately \$2.2 million in proceeds, occurred on February 20, 2007. Subject to stockholder approval, the Company agreed to sell the remainder of the securities at a second closing, at which the Company will receive approximately \$3.1 million in proceeds. The second closing is expected to occur after the Company's annual stockholder meeting, which is expected to be held on May 10, 2007. With the successful conclusion of the second closing, the Company's management believes it will have sufficient cash to support current operations until at least December 2008. In connection with the transaction, the Company also entered into a registration rights agreement with the investors. The Company will pay a placement fee to a placement agent, which includes a cash fee equal to 5% of the gross proceeds and warrants exercisable for common stock with a dollar value equal to 5% of the gross proceeds. A payment of approximately \$100,000 was made and warrants to purchase 74,434 shares of common stock were issued to the placement agent in connection with the first closing. All of the securities will be sold in a private placement pursuant to Regulation D of the Securities Act.

The Company intends to continue to invest in research and development and its manufacturing capabilities. Changes in technology or sales growth beyond currently established capabilities may require further investment. Further adoption of the technology and timing of future equipment orders are dependent on the continuing qualification of implanters and improvement programs at the device manufacturers, among other factors. At present time the Company has only one of the four major wafer manufacturers as its current customer. We currently do not have an order backlog for implanters. The timing of future orders is important and difficult to predict because customers can delay orders and/or request early shipment, either of which could cause the need for additional cash requirements. Forecasting future revenue, on a quarter-by-quarter basis, remains exceedingly difficult and significant variations, quarter to quarter, are likely. Further, because some of the materials and components the Company uses to build its implanter have long lead times, the Company may purchase some or all of those long lead items prior to receipt of an order by its customers. When this is the case, those parts and materials bear the risk of being subject to excess and obsolescence. The Company expects to continue to explore equity offerings and other forms of financing and anticipates that we may be required to raise additional capital in the future in order to finance future growth and our research and development programs. There can be no assurance however that our actual needs will not exceed expectations or that we will be able to fund our operations on a long-term basis in the absence of other sources. There also can be no assurance that any additional required longer term financing will be available through additional bank borrowings, debt or equity offerings or otherwise, or that if such financing is available, that it will be available on terms acceptable to us.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements as defined in Regulation S-K Section 303(a)(4)(ii).

Contractual Obligations

We have no significant contractual obligations not fully recorded on our Balance Sheets or fully disclosed in the Notes to our Financial Statements. We have no off-balance sheet arrangements as defined in Regulation S-K Section 303(a)(4)(ii).

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**MANAGEMENT'S DISCUSSION AND ANALYSIS OF
FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

At December 31, 2006, our outstanding contractual obligations included:

Contractual Obligations	Payment due by period					
	<u>Total</u>	<u>Less than 1 year</u>	<u>1 year</u>	<u>2 years</u>	<u>3-5 years</u>	<u>More than 5 years</u>
Minimum Operating Lease Payments	\$1,745,325	\$ 412,015	\$ 384,384	\$ 383,432	\$565,494	\$ --

Additional information regarding our financial commitments at December 31, 2006 is provided in the Notes to our Financial Statements. See "Notes to Financial Statements, Note 8, Commitments and Contingencies".

Effects Of Inflation

Ibis believes that over the past three years inflation has not had a significant impact on our sales or operating results.

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MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

New Accounting Pronouncements

In July 2006, the Financial Accounting Standards Board (FASB) issued FASB Interpretation No. 48, "Accounting for Uncertainty in Income Taxes—an interpretation of FASB Statement No. 109" (FIN 48), which clarifies the accounting and disclosure for uncertainty in tax positions, as defined. FIN 48 seeks to reduce the diversity in practice associated with certain aspects of the recognition and measurement related to accounting for income taxes. This interpretation is effective for fiscal years beginning after December 15, 2006. FIN 48 requires management to perform a two-step evaluation of all tax positions, ensuring that these tax return positions meet the "more-likely than not" recognition threshold and can be measured with sufficient precision to determine the benefit recognized in the financial statements. These evaluations provide management with a comprehensive model for how a company should recognize, measure, present, and disclose in its financial statements certain tax positions that the Company has taken or expects to take on income tax returns. We do not expect the adoption of FIN 48 to have a material impact on our financial position or results of operations.

In September 2006, the SEC issued Staff Accounting Bulletin No. 108, "Considering the Effects of Prior Year Misstatements when Quantifying Misstatements in Current Year Financial Statements" ("SAB 108"). SAB 108 requires companies to evaluate the materiality of identified unadjusted errors on each financial statement and related financial statement disclosure using both the rollover approach and the iron curtain approach. The rollover approach quantifies misstatements based on the amount of the error in the current year financial statement whereas the iron curtain approach quantifies misstatements based on the effects of correcting the misstatement existing in the balance sheet at the end of the current year, irrespective of the misstatement's year(s) of origin. Financial statements would require adjustment when either approach results in quantifying a misstatement that is material. Correcting prior year financial statements for immaterial errors would not require previously filed reports to be amended. SAB 108 is effective for interim periods of the first fiscal year ending after November 15, 2006. We do not expect the adoption of SAB 108 to have a material impact on our financial position or results of operations.

In August 2001, the FASB issued Statement No. 143, "Accounting for Conditional Asset Retirement Obligations" which states "An entity shall recognize the fair value of a liability for an asset retirement obligation in the period in which it is incurred if a reasonable estimate of fair value can be made." FASB Interpretation No. 47 is an interpretation of FASB Statement No. 143 which clarifies that the term *conditional asset retirement obligation* refers to a legal obligation to perform an asset retirement activity in which the timing and (or) method of settlement are conditional on a future event that may or may not be within the control of the entity. The obligation to perform the asset retirement activity is unconditional even though uncertainty exists about the timing and (or) method of settlement. Thus, the timing and (or) method of settlement may be conditional on a future event. Accordingly, an entity is required to recognize a liability for the fair value of a conditional asset retirement obligation if the fair value of the liability can be reasonably estimated. The fair value of a liability for the conditional asset retirement obligation should be recognized when incurred—generally upon acquisition, construction, or development and (or) through the normal operation of the asset. Uncertainty about the timing and (or) method of settlement of a conditional asset retirement obligation should be factored into the measurement of the liability when sufficient information exists. Statement No.143 acknowledges that in some cases, sufficient information may not be available to reasonably estimate the fair value of an asset retirement obligation. This Interpretation also clarifies when an entity would have sufficient information to reasonably estimate the fair value of an asset retirement obligation. Fin 47 is effective for fiscal years beginning after December 15, 2005. The Company has determined that there is no additional impact from the adoption of this Statement.

Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

The exposure of market risk associated with risk-sensitive instruments is not material to Ibis, as we do not transact our sales denominated in other than United States dollars, invest primarily in short-term commercial paper, hold our investments until maturity and have not entered into hedging transactions.

FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

IBIS TECHNOLOGY CORPORATION

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders
of Ibis Technology Corporation:

We have audited the accompanying balance sheets of Ibis Technology Corporation as of December 31, 2005 and 2006, and the related statements of operations, stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2006. 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. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as 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 Ibis Technology Corporation as of December 31, 2005 and 2006, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2006, in conformity with U.S. generally accepted accounting principles.

As described in note 2(k) to the financial statements, the Company adopted Statement of Financial Accounting Standards No. 123 (revised 2004), *Share-based Payment*, effective January 1, 2006.

/s/ KPMG LLP

Boston, Massachusetts
March 26, 2007

IBIS TECHNOLOGY CORPORATION

BALANCE SHEETS

December 31, 2005 and 2006

	<u>2005</u>	<u>2006</u>
<u>Assets</u>		
Current assets:		
Cash and cash equivalents.....	\$ 6,856,874	\$ 4,812,477
Accounts receivable, trade, net (notes 4 and 16).....	90,878	349,154
Inventories, net (note 5).....	6,276,650	3,575,296
Prepaid expenses and other current assets.....	<u>615,702</u>	<u>290,780</u>
Total current assets.....	<u>13,840,104</u>	<u>9,027,707</u>
Property and equipment (notes 6, 8 and 18).....	26,448,906	24,728,824
Less: Accumulated depreciation and amortization.....	<u>(21,352,154)</u>	<u>(20,744,772)</u>
Net property and equipment.....	5,096,752	3,984,052
Patents and other assets, net (note 7).....	<u>1,055,532</u>	<u>777,082</u>
Total assets.....	<u>\$ 19,992,388</u>	<u>\$ 13,788,841</u>
<u>Liabilities and Stockholders' Equity</u>		
Current liabilities:		
Accounts payable.....	\$ 230,871	\$ 409,705
Accrued liabilities (notes 9 and 10).....	1,201,695	973,994
Deferred revenue (note 11).....	<u>7,263,000</u>	<u>150,000</u>
Total current liabilities.....	<u>8,695,566</u>	<u>1,533,699</u>
Commitments and contingencies (notes 8, 11 and 16)		
Stockholders' equity (notes 14 and 15):		
Undesignated preferred stock, \$.01 par value.		
Authorized 2,000,000 shares; none issued.....	--	--
Common stock, \$.008 par value.		
Authorized 50,000,000 shares; issued and outstanding		
10,816,029 shares and 10,915,481 in 2005 and 2006,		
respectively.....	86,528	87,324
Additional paid-in capital.....	93,245,754	93,798,393
Accumulated deficit.....	<u>(82,035,460)</u>	<u>(81,630,575)</u>
Total stockholders' equity.....	<u>11,296,822</u>	<u>12,255,142</u>
Total liabilities and stockholders' equity.....	<u>\$ 19,992,388</u>	<u>\$ 13,788,841</u>

See accompanying notes to financial statements.

IBIS TECHNOLOGY CORPORATION

STATEMENTS OF OPERATIONS

Years ended December 31, 2004, 2005 and 2006

	<u>2004</u>	<u>2005</u>	<u>2006</u>
License and other revenue (note 12).....	\$ 390,975	\$ 324,621	\$ 560,384
Equipment revenue.....	<u>7,535,270</u>	<u>277,684</u>	<u>13,427,035</u>
Total sales and revenue (note 16).....	<u>7,926,245</u>	<u>602,305</u>	<u>13,987,419</u>
Cost of license and other revenue.....	15,370	--	--
Cost of equipment revenue.....	<u>4,721,673</u>	<u>750,472</u>	<u>5,893,600</u>
Total cost of sales and revenue.....	<u>4,737,043</u>	<u>750,472</u>	<u>5,893,600</u>
Gross profit (loss).....	<u>3,189,202</u>	<u>(148,167)</u>	<u>8,093,819</u>
Operating expenses:			
General and administrative.....	2,221,167	2,216,748	2,400,645
Marketing and selling.....	1,520,508	1,318,979	1,095,844
Research and development.....	<u>5,329,528</u>	<u>5,993,350</u>	<u>5,396,321</u>
Total operating expenses.....	<u>9,071,203</u>	<u>9,529,077</u>	<u>8,892,810</u>
Loss from operations.....	<u>(5,882,001)</u>	<u>(9,677,244)</u>	<u>(798,991)</u>
Other income (expense):			
Interest income.....	110,385	208,818	304,008
Interest expense.....	(34,718)	(536)	--
Other (note 16).....	<u>166,418</u>	<u>9,671</u>	<u>901,124</u>
Total other income.....	<u>242,085</u>	<u>217,953</u>	<u>1,205,132</u>
Income (loss) from continuing operations before income taxes.....	(5,639,916)	(9,459,291)	406,141
Income tax expense (note 13).....	<u>1,256</u>	<u>1,256</u>	<u>1,256</u>
Income (loss) from continuing operations	<u>(5,641,172)</u>	<u>(9,460,547)</u>	<u>404,885</u>
Discontinued operations (note 18):			
Loss from discontinued operations	(3,178,529)	--	--
Gain (loss) on disposal	<u>(2,098,840)</u>	<u>215,242</u>	--
Income (loss) from discontinued operations	<u>(5,277,369)</u>	<u>215,242</u>	--
Net income (loss).....	<u>\$ (10,918,541)</u>	<u>\$ (9,245,305)</u>	<u>\$ 404,885</u>
Earnings (loss) per share:			
Basic and Diluted			
Continuing operations.....	\$ (0.53)	\$ (0.88)	\$ 0.04
Discontinued operations.....	<u>(0.49)</u>	<u>0.02</u>	--
Net income (loss).....	<u>\$ (1.02)</u>	<u>\$ (0.86)</u>	<u>\$ 0.04</u>
Weighted average common shares outstanding			
Basic	10,665,842	10,737,924	10,853,304
Diluted	10,665,842	10,737,924	10,979,783

See accompanying notes to financial statements.

IBIS TECHNOLOGY CORPORATION
STATEMENTS OF STOCKHOLDERS' EQUITY

Years ended December 31, 2004, 2005 and 2006

	Common Stock	Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Equity
Balances at December 31, 2003...	\$ 85,209	\$ 92,903,618	\$ (61,871,614)	\$ 31,117,213
Exercise of stock options.....	4	3,056	--	3,060
Employee Stock Purchase Plan.....	544	217,585	--	218,129
Net loss.....	<u>--</u>	<u>--</u>	<u>(10,918,541)</u>	<u>(10,918,541)</u>
Balances at December 31, 2004	85,757	93,124,259	(72,790,155)	20,419,861
Exercise of stock options.....	--	8,550	--	8,550
Employee Stock Purchase Plan.....	771	112,945	--	113,716
Net loss.....	<u>--</u>	<u>--</u>	<u>(9,245,305)</u>	<u>(9,245,305)</u>
Balances at December 31, 2005	86,528	93,245,754	(82,035,460)	11,296,822
Exercise of stock options.....	8	1,386	--	1,394
Stock based compensation	--	398,599	--	398,599
Employee Stock Purchase Plan.....	788	152,654	--	153,442
Net income.....	<u>--</u>	<u>--</u>	<u>404,885</u>	<u>404,885</u>
Balances at December 31, 2006...	<u>\$ 87,324</u>	<u>\$ 93,798,393</u>	<u>\$ (81,630,575)</u>	<u>\$ 12,255,142</u>

See accompanying notes to financial statements

IBIS TECHNOLOGY CORPORATION

STATEMENTS OF CASH FLOWS

Years ended December 31, 2004, 2005 and 2006

	<u>2004</u>	<u>2005</u>	<u>2006</u>
Cash flows from operating activities:			
Net income (loss).....	\$(10,918,541)	\$(9,245,305)	\$ 404,885
Less: income (loss) from discontinued operations...	<u>(5,277,369)</u>	<u>215,242</u>	<u> --</u>
Income (loss) from continuing operations.....	(5,641,172)	(9,460,547)	404,885
Adjustments to reconcile net loss to net cash used in operating activities:			
Stock-based compensation expense.....	--	--	394,776
Depreciation and amortization.....	1,962,716	1,746,989	1,535,856
Changes in operating assets and liabilities:			
Accounts receivable, trade.....	6,340	117,023	(258,276)
Unbilled revenue.....	528,581	--	--
Inventories.....	141,404	(651,483)	2,705,177
Prepaid expenses and other current assets.....	92,600	(42,302)	324,922
Accounts payable.....	184,893	(162,004)	178,834
Accrued liabilities and deferred revenue.....	<u>(613,114)</u>	<u>7,240,174</u>	<u>(7,340,701)</u>
Net cash used in operating activities of continuing operations.....	<u>(3,337,752)</u>	<u>(1,212,150)</u>	<u>(2,054,527)</u>
Cash flows from investing activities:			
Additions to property and equipment, net.....	(721,002)	(149,648)	(41,804)
Additions to assets held for sale.....	(131,416)	--	--
Other assets.....	<u>(102,815)</u>	<u>247,988</u>	<u>(102,902)</u>
Net cash provided (used) in investing activities of continuing operations.....	<u>(955,233)</u>	<u>98,340</u>	<u>(144,706)</u>
Cash flows from financing activities:			
Exercise of stock options, warrants and Employee Stock Purchase Plan.....	<u>221,189</u>	<u>122,266</u>	<u>154,836</u>
Net cash provided by financing activities of continuing operations.....	<u>221,189</u>	<u>122,266</u>	<u>154,836</u>
Cash flows of discontinued operations: (Revised See Note 18):			
Operating cash flows	(1,524,213)	45,297	--
Investing cash flows	331,764	77,049	--
Financing cash flows	<u>(1,184,399)</u>	<u> --</u>	<u> --</u>
Net cash provided (used) in discontinued operations.....	<u>(2,376,848)</u>	<u>122,346</u>	<u> --</u>
Net increase (decrease) in cash and cash equivalents.....	(6,448,644)	(869,198)	(2,044,397)
Cash and cash equivalents, beginning of year.....	<u>14,174,716</u>	<u>7,726,072</u>	<u>6,856,874</u>
Cash and cash equivalents, end of year.....	<u>\$ 7,726,072</u>	<u>\$ 6,856,874</u>	<u>\$ 4,812,477</u>
Supplemental disclosures of cash flow information:			
Cash paid during the year for interest.....	<u>\$ 34,718</u>	<u>\$ 536</u>	<u>\$ --</u>
Transfer of internally constructed equipment from property and equipment to inventory.....	<u>\$ 3,674,903</u>	<u>\$ --</u>	<u>\$ --</u>

See accompanying notes to financial statements.

IBIS TECHNOLOGY CORPORATION
NOTES TO FINANCIAL STATEMENTS

December 31, 2005 and 2006

(1) Nature of Business and Organization

Ibis Technology Corporation (the "Company") was incorporated in October 1987 for the purpose of supplying silicon-on-insulator (SOI) wafers formed by SIMOX (Separation by Implantation of Oxygen) technology. SIMOX-SOI wafers were manufactured by the Company using a specialized oxygen ion implanter, which was developed and manufactured by the Company and is integrated with other specialized processes and characterization equipment. The Company is the leading manufacturer of high current oxygen implanters and began selling these oxygen implanters in 1996.

(2) Summary of Significant Accounting Policies

(a) Cash and Cash Equivalents

Cash equivalents represent highly liquid investments with original maturities of three months or less.

(b) Inventories

Inventories are stated at the lower of cost or market. Cost is determined using the first-in, first-out ("FIFO") cost method.

(c) Property and Equipment and Impairment of Long-Lived Assets

Property and equipment is stated at cost. Depreciation is provided using the straight-line method over the estimated useful lives of the respective assets, ranging from three to eight years. Amortization of leasehold improvements is provided using the straight-line method over the lesser of the life of the lease, or the estimated useful life of the asset.

The Company reviews its long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset or asset group may not be recoverable. Recoverability of assets to be held and used is assessed by a comparison of the carrying amount of an asset to future undiscounted cash flows expected to be generated by the asset. If such assets are considered to be impaired, the impairment to be recognized is measured by the degree to which the carrying amount of the assets exceeds the fair value of the assets.

(d) Patents and Other Assets

Other assets consist principally of deposits, prepaid royalties and licenses. Patents and prepaid royalties are amortized over five years using the straight-line method. Licenses are amortized over seven years using the straight-line method.

(e) Revenue Recognition

The Company historically recognized revenue from equipment sales and the sales of spare parts when all of the following criteria have been met: (1) evidence exists that the customer is bound to the transaction; (2) the product has been delivered to the customer and, when applicable, the product has been installed and accepted by the customer; (3) the sales price to the customer has been fixed or is determinable; and (4) collectibility of the sale price is reasonably assured. The Company recognizes revenue from implanter sales upon acceptance at the customer's site. Revenue derived from contracts and services is recognized upon performance. Provisions for anticipated losses are made in the period in which such losses become determinable.

IBIS TECHNOLOGY CORPORATION
NOTES TO FINANCIAL STATEMENTS – (Continued)

(f) Research and Development

Research and development costs are charged to expense as incurred.

(g) Net Income (Loss) Per Common Share

Net income (loss) per share of common stock is computed based upon the weighted average number of shares outstanding during each period and including the dilutive effect, if any, of stock options and warrants. SFAS 128 requires the presentation of basic and diluted earnings (loss) per share for all periods presented. As the Company was in a net loss position for the years ended December 31, 2004 and December 31, 2005, common stock equivalents of 133,092 and 74,590 for the years ended December 31, 2004, and 2005, respectively, were excluded from the diluted loss per share calculation as they would be antidilutive. As a result, diluted loss per share is the same as basic loss per share for 2004 and 2005.

The reconciliation of the denominators of the basic and diluted net income (loss) per common share for the Company's net income (loss) is as follows:

	<u>Years Ended December 31,</u>					
	<u>2004</u>		<u>2005</u>		<u>2006</u>	
	Diluted	Basic	Diluted	Basic	Diluted	Basic
Income (loss) from:						
Continuing operations	\$ (5,641,172)	\$ (5,641,172)	\$(9,460,547)	\$(9,460,547)	\$ 404,885	\$ 404,885
Discontinued operations	<u>(5,277,369)</u>	<u>(5,277,369)</u>	<u>215,242</u>	<u>215,242</u>	<u>—</u>	<u>—</u>
Net income (loss)	<u><u>\$(10,918,541)</u></u>	<u><u>\$(10,918,541)</u></u>	<u><u>\$(9,245,305)</u></u>	<u><u>\$(9,245,305)</u></u>	<u><u>\$ 404,885</u></u>	<u><u>\$ 404,885</u></u>
Weighted average common shares outstanding	10,665,842	<u>10,665,842</u>	10,737,924	<u>10,737,924</u>	10,853,304	<u>10,853,304</u>
Potential common share equivalents	<u>—</u>		<u>—</u>		<u>126,479</u>	
Weighted average shares outstanding	<u>10,665,842</u>		<u>10,737,924</u>		<u>10,979,783</u>	
Earnings (loss) per common share and common share equivalents						
Continuing operations	\$ (0.53)	\$ (0.53)	\$ (0.88)	\$ (0.88)	\$ 0.04	\$ 0.04
Discontinued operations	<u>(0.49)</u>	<u>(0.49)</u>	<u>0.02</u>	<u>0.02</u>	<u>—</u>	<u>—</u>
Net income (loss)	<u><u>\$(1.02)</u></u>	<u><u>\$(1.02)</u></u>	<u><u>\$(0.86)</u></u>	<u><u>\$(0.86)</u></u>	<u><u>\$ 0.04</u></u>	<u><u>\$ 0.04</u></u>

(h) Issuance Costs

Common stock issuance costs are netted against additional paid-in capital.

(i) Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results may differ from these estimates. Management exercises judgment and relies on estimates in recognizing revenue, valuing inventory, accruing certain liabilities, and assessing long-lived asset impairment, estimated useful lives of long-lived assets, and inventory obsolescence reserves.

IBIS TECHNOLOGY CORPORATION

NOTES TO FINANCIAL STATEMENTS – (Continued)

(j) Fair Value of Financial Instruments

Financial instruments of the Company consist of cash and cash equivalents, accounts receivable, accounts payable and accrued liabilities. The carrying amount of these financial instruments approximates fair value.

(k) Share-Based Compensation

On January 1, 2006, the Company adopted Statement of Financial Accounting Standards No. 123 (revised 2004), "Share-Based Payment," ("SFAS 123(R)") which requires the measurement and recognition of compensation expense for all share-based payment awards made to employees and directors including employee stock options, employee stock purchases related to the 2000 Employee Stock Purchase Plan ("the ESPP"), restricted stock and other special equity awards based on grant-date estimated fair values. SFAS 123(R) supersedes the Company's previous accounting under Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees" ("APB 25") for periods beginning in 2006. In March 2005, the Securities and Exchange Commission issued SAB 107 relating to SFAS 123(R). The Company has applied the provisions of SAB 107 in its adoption of SFAS 123(R).

The Company's financial statements for the fiscal year ended December 31, 2006 reflect the impact of SFAS 123(R). In accordance with the modified prospective transition method, the Company's financial statements for prior periods have not been restated to reflect, and do not include, the impact of SFAS 123(R). Share-based compensation expense recognized under SFAS 123(R) for the twelve months ended December 31, 2006 was \$0.4 million or \$0.04 per share, which consisted of share-based compensation expense related to employee stock options and the employee stock purchase plan. Of this year-to-date expense, fifty four percent came from options issued prior to December 31, 2005 and are valued using the accrual method, which is consistent with prior periods, while twenty three percent came from options issued in 2006 and are valued using the straight-line prorated method, which was adopted in 2006 under the new guidance, and twenty three percent came from the valuation of shares issued under the employee stock purchase plan. There was no stock-based compensation expense related to employee stock options or employee stock purchases recognized during the fiscal years ended December 31, 2004 and December 31, 2005 because the Company elected not to adopt the recognition provisions, and instead provided footnote disclosure permissible under Statement of Financial Accounting Standards No. 123, "Accounting for Stock-Based Compensation" ("SFAS 123").

SFAS 123(R) requires companies to estimate the fair value of share-based payment awards on the date of grant using an option-pricing model. The value of the portion of the award that is ultimately expected to vest is recognized as expense over the requisite service periods in the Company's Statement of Operations. Prior to the adoption of SFAS 123(R) the Company accounted for stock-based awards to employees and directors using the intrinsic value method in accordance with Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees" ("APB 25") as allowed under SFAS 123. Under the intrinsic value method, stock-based compensation expense had not been recognized in the Company's statement of operations when the exercise price of the Company's stock options granted to employees and directors equaled or exceeded the fair market value of the underlying stock at the date of grant.

Share-based compensation expense recognized during the period is based on the value of the portion of share-based payment awards that is ultimately expected to vest during the period. Stock-based compensation expense recognized in the Company's Statement of Operations for the fiscal year ended December 31, 2006 included compensation expenses for share-based payment awards granted prior to, but not yet vested as of December 31, 2005, based on the grant date fair value estimated in accordance with the pro forma provisions of SFAS 123, and compensation expense for the share-based payment awards granted subsequent to December 31, 2005 based on the grant date fair value estimated in accordance with the provisions of SFAS 123(R).

IBIS TECHNOLOGY CORPORATION

NOTES TO FINANCIAL STATEMENTS – (Continued)

As stock-based compensation expense recognized in the Statement of Operations for the fiscal year ended December 31, 2006 is based on awards ultimately expected to vest, it has been reduced for estimated forfeitures. SFAS 123(R) requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates.

Upon adoption of SFAS 123(R), the Company elected to retain its method of valuation for share-based awards granted beginning in 2006 using the Black-Scholes option-pricing model (“Black-Scholes model”) which was also previously used for the Company’s pro forma information required under SFAS 123. The Company’s determination of fair value of share-based payment awards on the date of grant using an option-pricing model is affected by the Company’s stock price as well as assumptions regarding a number of highly complex and subjective variables. These variables include, but are not limited to the Company’s expected stock price volatility over the term of the awards, and actual and projected employee stock option exercise behaviors.

(l) Reclassifications

Certain prior year amounts have been reclassified to conform to current year presentation. These reclassifications had no effect on the Company’s reported net loss or financial position.

New Accounting Pronouncements

In July 2006, the Financial Accounting Standards Board (FASB) issued FASB Interpretation No. 48, “Accounting for Uncertainty in Income Taxes—an interpretation of FASB Statement No. 109” (FIN 48), which clarifies the accounting and disclosure for uncertainty in tax positions, as defined. FIN 48 seeks to reduce the diversity in practice associated with certain aspects of the recognition and measurement related to accounting for income taxes. This interpretation is effective for fiscal years beginning after December 15, 2006. FIN 48 requires management to perform a two-step evaluation of all tax positions, ensuring that these tax return positions meet the “more-likely than not” recognition threshold and can be measured with sufficient precision to determine the benefit recognized in the financial statements. These evaluations provide management with a comprehensive model for how a company should recognize, measure, present, and disclose in its financial statements certain tax positions that the Company has taken or expects to take on income tax returns. We do not expect the adoption of FIN 48 to have a material impact on our financial position or results of operations.

In September 2006, the SEC issued Staff Accounting Bulletin No. 108, “Considering the Effects of Prior Year Misstatements when Quantifying Misstatements in Current Year Financial Statements” (“SAB 108”). SAB 108 requires companies to evaluate the materiality of identified unadjusted errors on each financial statement and related financial statement disclosure using both the rollover approach and the iron curtain approach. The rollover approach quantifies misstatements based on the amount of the error in the current year financial statement whereas the iron curtain approach quantifies misstatements based on the effects of correcting the misstatement existing in the balance sheet at the end of the current year, irrespective of the misstatement’s year(s) of origin. Financial statements would require adjustment when either approach results in quantifying a misstatement that is material. Correcting prior year financial statements for immaterial errors would not require previously filed reports to be amended. SAB 108 is effective for interim periods of the first fiscal year ending after November 15, 2006. We do not expect the adoption of SAB 108 to have a material impact on our financial position or results of operations.

In August 2001, the FASB issued Statement No. 143, “Accounting for Conditional Asset Retirement Obligations” which states “An entity shall recognize the fair value of a liability for an asset retirement obligation in the period in which it is incurred if a reasonable estimate of fair value can be made.”

IBIS TECHNOLOGY CORPORATION

NOTES TO FINANCIAL STATEMENTS – (Continued)

FASB Interpretation No. 47 is an interpretation of FASB Statement No. 143 which clarifies that the term *conditional asset retirement obligation* refers to a legal obligation to perform an asset retirement activity in which the timing and (or) method of settlement are conditional on a future event that may or may not be within the control of the entity. The obligation to perform the asset retirement activity is unconditional even though uncertainty exists about the timing and (or) method of settlement. Thus, the timing and (or) method of settlement may be conditional on a future event. Accordingly, an entity is required to recognize a liability for the fair value of a conditional asset retirement obligation if the fair value of the liability can be reasonably estimated. The fair value of a liability for the conditional asset retirement obligation should be recognized when incurred—generally upon acquisition, construction, or development and (or) through the normal operation of the asset. Uncertainty about the timing and (or) method of settlement of a conditional asset retirement obligation should be factored into the measurement of the liability when sufficient information exists. Statement No.143 acknowledges that in some cases, sufficient information may not be available to reasonably estimate the fair value of an asset retirement obligation. This Interpretation also clarifies when an entity would have sufficient information to reasonably estimate the fair value of an asset retirement obligation. Fin 47 is effective for fiscal years beginning after December 15, 2005. The Company has determined that there is no additional impact on its financial position or results of operations from the adoption of this Statement.

(3) Liquidity

Historically, the Company has financed its operations and met its capital requirements through funds generated from operations, the issuance of common stock, equipment lines of credit, a working capital line of credit, a term loan, sales-leaseback arrangements and collaborative arrangements. In July 2004, the Company discontinued its wafer manufacturing business, to focus exclusively on the equipment manufacturing business. The Company will maintain a research and development effort focused on continuous improvement of the equipment capabilities and for supporting the Company's equipment customers' needs.

As of December 31, 2006, Ibis had cash and cash equivalents of \$4.8 million, including the final payment of \$1.1 million for the second i2000 SIMOX implanter accepted by SUMCO in the fiscal year ended December 31, 2006.

During the fiscal year ended December 31, 2006, Ibis used \$2.1 million of cash for operating activities of continuing operations as compared to \$1.2 million in 2005. To date, Ibis' working capital requirements have been funded primarily through debt (capital leases) and equity financings, including the February 2007 financing discussed below. The principal uses of cash during the fiscal year ended December 31, 2006, as described in the Statement of Cash Flows on page 46 of this 10K, were to fund operations and additions to property and equipment. At December 31, 2006, Ibis had commitments to purchase approximately \$0.2 million in material. Our headcount for the year ended December 31, 2006 was 45 employees.

Cash flow projections developed by management indicate the Company believes it will have sufficient cash resources to support current operations until at least June 2008. This expectation however, is based on the Company's current operating plan and general sales outlook, each of which may change rapidly. In January, 2007 the Company announced that to conserve cash it was reducing its operating expenses by approximately 40% which involved cost cutting measures consisting of headcount reductions, consulting at a neighboring business for a minimum of six months under a staffing services agreement, salary reductions and reducing consumable expenses. On February 16, 2007, the Company entered into a purchase agreement pursuant to which it agreed to sell unregistered shares of its common stock and warrants exercisable for common stock to Special Situation Funds for an aggregate purchase price of \$5.3 million in a two-tranche financing. The first closing, at which the Company received approximately \$2.2 million in proceeds, occurred on February 20, 2007. Subject to stockholder approval, the Company agreed to sell the remainder of the securities at a second

IBIS TECHNOLOGY CORPORATION

NOTES TO FINANCIAL STATEMENTS – (Continued)

closing, at which the Company will receive approximately \$3.1 million in proceeds. The second closing is expected to occur after the Company's annual stockholder meeting, which is scheduled to be held on May 10, 2007. In connection with the transaction, the Company also entered into a registration rights agreement with the investors. The Company will pay a placement fee to a placement agent, which includes a cash fee equal to 5% of the gross proceeds and warrants exercisable for common stock with a dollar value equal to 5% of the gross proceeds. A payment of approximately \$100,000 was made and warrants to purchase 74,434 shares of common stock were issued to the placement agent in connection with the first closing. All of the securities will be sold in a private placement pursuant to Regulation D of the Securities Act.

(4) Accounts Receivable

Accounts receivable consisted of the following at December 31:

	<u>2005</u>	<u>2006</u>
Accounts receivable, trade.....	\$ 36,250	\$ 160,822
Less: Allowance for doubtful accounts.....	(25,000)	--
Accounts receivable, other.....	<u>79,628</u>	<u>188,332</u>
	<u>\$ 90,878</u>	<u>\$ 349,154</u>

(5) Inventories

Inventories consisted of the following at December 31:

	<u>2005</u>	<u>2006</u>
Raw materials.....	\$ 1,790,923	\$ 1,445,182
Work in process.....	1,980,513	2,130,114
Finished goods.....	<u>2,505,214</u>	--
Total equipment inventory.....	<u>\$ 6,276,650</u>	<u>\$ 3,575,296</u>

Equipment inventory at December 31, 2006 consists of i2000 parts and/or implanters under construction or otherwise available for resale. Finished goods inventory decreased by \$2.5 million in 2006 as a result of the sale of an implanter. With the discontinuance of the wafer operation in the third quarter of 2004, all wafer inventory was written off to the loss from discontinued operations with the exception of the 300 mm raw wafers valued at \$0.8 million, that was reclassified as prepaid expenses in 2004 and other assets to be used for future R&D and implanter qualifications. The balance remaining of these 300 mm raw wafers at December 31, 2006 is \$0.1 million.

At December 31, 2006, the Company had commitments to purchase approximately \$0.2 million in material to be used for the i2000 implanter under construction and general operating expenses.

IBIS TECHNOLOGY CORPORATION
NOTES TO FINANCIAL STATEMENTS – (Continued)

(6) Property and Equipment

Property and equipment consisted of the following at December 31:

	<u>2005</u>	<u>2006</u>
Machinery and equipment.....	\$ 21,160,832	\$ 19,448,571
Furniture and fixtures.....	408,593	376,618
Leasehold improvements.....	4,733,443	4,903,635
Construction in progress.....	<u>146,038</u>	<u>--</u>
	<u>\$ 26,448,906</u>	<u>\$ 24,728,824</u>

(7) Other Assets

In December 2000, the Company entered into a royalty-bearing license agreement which gives the Company the right to manufacture SIMOX-SOI wafers using the licensed process. Although the Company is no longer in the wafer manufacturing business, it did sell in 2006 a small amount of wafers and paid royalty of approximately \$2 thousand. Much of the R&D development work is still being done using this licensed process in support of implanter and process improvements. Warrants were issued in connection with this agreement. The cost of the license agreement, including cash paid and the fair value of the warrants issued, is \$2.3 million and is included in other assets at December 31, 2005 and December 31, 2006, net of accumulated amortization of \$1.6 million and \$2.0 million, respectively. The warrants associated with this transaction expired in December 2005 unexercised.

(8) Commitments and Contingencies

(a) Leases

Ibis' corporate office and manufacturing site are located at a leased facility in Danvers, Massachusetts. The equipment manufacturing business and the engineering and wafer processing research and development effort are housed in approximately 32,000 square feet which includes a modernized cleanroom that contains metrology equipment, cleaning equipment and an implantation equipment manufacturing and service area. The lease on the space we currently occupy was renewed during 2006 and will expire on June 30, 2011, and contains an option to renew for five years. The Company has no significant contractual obligations not fully recorded on its Balance Sheets or fully disclosed in the Notes to its Financial Statements. The Company has no off-balance sheet arrangements.

At December 31, 2006, the Company's contractual obligations included:

	<u>Payment due by period</u>					<u>More than 5 years</u>
	<u>Total</u>	<u>Less than 1 year</u>	<u>1 year</u>	<u>2 years</u>	<u>3-5 years</u>	
Contractual Obligations						
Minimum Operating Lease Payments	<u>\$1,745,325</u>	<u>\$ 412,015</u>	<u>\$384,384</u>	<u>\$ 383,432</u>	<u>\$565,494</u>	<u>--</u>

IBIS TECHNOLOGY CORPORATION
NOTES TO FINANCIAL STATEMENTS – (Continued)

Rent expense was approximately \$702,000, \$489,000 and \$343,177 for the years ended December 31, 2004, 2005 and 2006 respectively.

(b) Contingencies

Five class action securities lawsuits have been filed in the United States District Court in the District of Massachusetts against Ibis and its President and CEO: *Martin Smolowitz v. Ibis Technology Corporation*, et al., Civ. No. 03-12613 (RCL) (D. Mass.); *Fred Den v. Ibis Technology Corporation*, et al., Civ. No. 04-10060 (RCL) (D. Mass.); *Weinstein v. Ibis Technology Corporation*, et al., Civ. No. 04-10088 (RCL) (D. Mass.); *George Harrison v. Ibis Technology Corporation*, et al., Civ. No. 04-10286 (RCL) (D. Mass.); and *Eleanor Pitzer v. Ibis Technology Corporation*, et al, Civ. No. 04-10446 (RCL) (D. Mass.). On June 4, 2004, the Court entered an order consolidating these actions under the caption *In re Ibis Technology Securities Litigation*, C.A. 04-10446 RCL. On July 6, 2004, a consolidated amended class action complaint was filed which alleges, among other things, that the Company violated federal securities laws by allegedly making misstatements to the investing public relating to demand for certain Ibis products and intellectual property issues relating to the sale of the i2000 oxygen implanter. The plaintiffs are seeking unspecified damages. On August 5, 2004, we filed a motion to dismiss the consolidated amended complaint on the grounds, among others, that it failed to state a claim on which the relief could be granted. On September 22, 2005 the Magistrate Judge issued a report and recommendation that our motion be granted in part and denied in part. By Memorandum and Order dated March 31, 2006, the Court adopted the Report and Recommendation of the Magistrate Judge, granting in part and denying in part the Company's motion to dismiss. As a result of the Court's Order, plaintiffs filed a Conformed Consolidated Amended Complaint, which the Company answered on July 5, 2006. On October 2, 2006, the company announced that it had reached an agreement in principle to settle the five class action securities lawsuits subject to, and contingent upon the negotiation and execution of a formal settlement agreement and final court approval after notice to the class. The proposed settlement, which provides for a payment to the plaintiffs of \$1.9 million and is to be funded entirely by the Company's insurance carrier, is not expected to have a material adverse effect on our business, results of operations or financial condition.

Ibis remains a nominal defendant in a shareholder derivative action filed in February 2004 against certain of its directors and officers: *Louis F. Matheson, Jr. v. Martin J. Reid et al.*, Civ. Act. No. 04-10341 (RCL). The complaint alleges, among other things, that the alleged conduct challenged in the securities cases pending against Ibis in Massachusetts (described above) constitutes a breach of the defendants' fiduciary duties to Ibis. The complaint seeks unspecified money damages and other relief ostensibly on behalf of Ibis. On June 4, 2004, the Court entered an order staying this matter pending the entry of a final order on any motion filed by the Company to dismiss the consolidated class action complaint referenced above. On May 1, 2006, the parties jointly moved to continue the administrative stay of the Derivative Action until final disposition of all claims in the Consolidated Action, which the Court granted on July 26, 2006. This continuing litigation may be time-consuming, expensive and disruptive to normal business operations, and the outcome of litigation is difficult to predict.

IBIS TECHNOLOGY CORPORATION

NOTES TO FINANCIAL STATEMENTS – (Continued)

(9) Accrued Liabilities

Current accrued liabilities were as follows at December 31:

	<u>2005</u>	<u>2006</u>
Accrued vacation.....	\$ 125,468	\$ 156,213
Accrued warranty.....	653,133	435,979
Accrued payroll.....	76,195	128,343
Accrued expenses.....	<u>346,899</u>	<u>253,459</u>
Total.....	<u>\$ 1,201,695</u>	<u>\$ 973,994</u>

(10) Accrued Warranty

At the time that revenue is recognized for the sale of an implanter a liability for warranty is also established. An estimate of the warranty cost is made based on the number of years involved and the Company's prior experience. As material and labor is used during the warranty period the liability is reduced based on these charges. At the end of the warranty term the balance in the liability is eliminated and adjusted through cost of sales, the account charged at inception. A reconciliation of warranty liability for the period ended December 31, 2004, December 31, 2005 and December 31, 2006 is as follows:

Warranty balance December 31, 2003.....	\$593,969
Expense incurred – 2004.....	(125,080)
Initiated – 2004.....	400,000
Expired – 2004.....	<u>(160,059)</u>
Warranty balance December 31, 2004.....	\$708,830
Expense incurred –2005.....	(31,061)
Initiated – 2005.....	--
Expired – 2005.....	<u>(24,636)</u>
Warranty balance December 31, 2005.....	\$653,133
Expenses incurred – 2006.....	(160,939)
Initiated – 2006.....	608,220
Expired – 2006.....	<u>(664,435)</u>
Warranty balance December 31, 2006.....	<u>\$ 435,979</u>

(11) Deferred Revenue

Deferred revenue includes prepaid license and royalty fees in the amount of \$13,000 at December 31, 2005 and zero at December 31, 2006. Also included in deferred revenue at December 31, 2005 was \$7,250,000 in deposits from the two i2000 implanter orders from SUMCO. At December 31, 2006 deferred revenue was \$150,000 in deposits for service from SUMCO.

(12) License Agreements

The Company obtained an exclusive sublicense in the field of oxygen implantation to the proprietary beam scanning system developed by a consultant to the Company during the development of the first Ibis 1000 implanter. The beam scanning system sublicense agreement also grants the Company certain rights to further sublicense the technology for certain applications. The Company received \$0.4 million, \$0.3 million and \$0.5 million in 2004, 2005 and 2006, respectively, for non-refundable option fees or royalty fees in accordance with non-exclusive sublicense agreements.

IBIS TECHNOLOGY CORPORATION
NOTES TO FINANCIAL STATEMENTS - (Continued)

(13) Income Taxes

The income tax provision (benefit) attributable to continuing operations consists of the following:

	Year Ended December 31,		
	2004	2005	2006
Current:			
Federal	\$ --	\$ --	\$ --
State	1,256	1,256	1,256
Deferred:			
Federal	--	--	--
State	--	--	--
Total	<u>\$1,256</u>	<u>\$1,256</u>	<u>\$1,256</u>

State income tax expense (benefit), which consists of Massachusetts and California excise and corporate taxes, differs from the amount computed by applying the statutory federal income tax rate of 34% to the income (loss) before income taxes from continuing operations as follows:

	2004	2005	2006
Computed "expected" tax expense (benefit)	\$(1,917,571)	\$(3,216,586)	\$ 142,444
State income taxes, net of federal tax benefit	829	829	26,441
Other	--	--	--
Losses (benefited)/not benefited	<u>1,917,998</u>	<u>3,217,013</u>	<u>(167,629)</u>
	<u>\$ 1,256</u>	<u>\$ 1,256</u>	<u>\$ 1,256</u>

The tax effects of temporary differences that give rise to significant portions of deferred tax assets and liabilities are presented below at December 31:

	<u>2005</u>	<u>2006</u>
Deferred tax assets:		
Net operating loss carryovers.....	\$ 36,193,000	\$ 34,586,000
Accruals not currently deductible for tax purposes.....	1,731,000	1,607,000
General business tax credit carryovers.....	2,599,000	2,374,000
Impairment reserves.....	2,017,000	1,906,000
FAS 123R.....	--	173,000
Other.....	11,000	--
Less: Valuation allowance.....	<u>(40,700,000)</u>	<u>(38,715,000)</u>
Total deferred tax assets.....	1,851,000	1,931,000
Deferred tax liabilities:		
Property and equipment, principally due to differences in depreciation.....	(1,675,000)	(1,735,000)
Patents.....	<u>(176,000)</u>	<u>(196,000)</u>
Net deferred tax assets	<u>\$ --</u>	<u>\$ --</u>

Total valuation allowance increased by \$3.8 million and decreased by \$2.0 million for the years ended December 31, 2005 and 2006, respectively. The Company has recorded a valuation allowance against its net deferred tax assets for 2005 and 2006, since management believes that, after considering all the available

IBIS TECHNOLOGY CORPORATION

NOTES TO FINANCIAL STATEMENTS - (Continued)

objective evidence, both positive and negative, historical and prospective, with the greater weight given to historical evidence, it is more likely than not that these assets will not be realized in the foreseeable future.

The Company had federal net operating loss and general business credit carryovers of approximately \$87.1 million and \$1.2 million, respectively, at December 31, 2006, with varying expiration dates through 2026, that may be used to offset future taxable income. State net operating loss and credit carryovers of \$52.4 million and \$1.2 million, respectively, have varying expiration dates. Included in the total deferred tax assets, offset by the valuation allowance, was \$3.2 million related to the net operating loss carry forward resulting from the exercise of employee stock options, the tax benefit of which, when recognized, will be accounted for as a credit to additional paid-in capital rather than a reduction of income tax expense.

Ownership changes, as defined in the Internal Revenue Code, may limit the amount of net operating loss carry forwards that can be utilized annually to offset future taxable income. The Company anticipates that these limitations will have no material impact on their ability to utilize the affected loss carry forwards in future years. Subsequent ownership changes could further impact the limitation in future years.

(14) Capitalization

The Company has 50,000,000 shares of common stock and 2,000,000 shares of preferred stock ("Undesignated Preferred Stock") authorized. At December 31, 2006, 65,493 common shares were reserved for issuance upon exercise of options outstanding under the Company's 1993 Employee, Director and Consultant Stock Option Plan. At December 31, 2006, the Company also had 1,729,818 common shares reserved for issuance upon exercise of options outstanding or available for grant under the Company's 1997 Employee, Director and Consultant stock option plan. At December 31, 2006, the Company had 169,664 common shares reserved for issuance under the Company's 2000 Employee Stock Purchase Plan.

(15) Stock Plans and Warrants

(a) Stock Option Plans

In December 1993, the Board of Directors and stockholders approved the adoption of the Company's 1993 Employee, Director and Consultant Stock Option Plan which provided for the issuance of options to purchase up to 250,000 shares of common stock to employees, consultants and non-employee directors. In May 1996, the stockholders increased to 750,000 shares the aggregate number of shares that may be granted under this plan.

In October 1997, the Board of Directors approved the adoption of the Company's 1997 Employee, Director and Consultant Stock Option Plan (the "1997 Plan") which provides for the issuance of options to purchase up to 750,000 shares of common stock of the Company to employees, consultants and non-employee directors. The stockholders approved the Plan at the May 1998 Annual Stockholders Meeting. In February 2001, the Board of Directors approved an amendment to the 1997 Plan to increase the aggregate number of shares reserved for issuance to 1,350,000. The stockholders approved this amendment at the May 2001 Annual Stockholders Meeting. In February 2004, the Board of Directors approved an amendment to the 1997 Plan to increase the aggregate number of shares reserved for issuance to 1,650,000. The stockholders approved this amendment at the May 2004 Annual Stockholders Meeting. In March 2006, the Board of directors approved an amendment to the 1997 plan to increase the aggregate number of shares reserved for issuance to 1,950,000. The stockholders approved this amendment at the May 2006 Annual Stockholders Meeting.

The Company has stock-based compensation plans under which employees and directors may be granted options to purchase common stock. Options are generally granted with exercise prices at not less than the fair

IBIS TECHNOLOGY CORPORATION

NOTES TO FINANCIAL STATEMENTS - (Continued)

market value on the grant date, generally vest over 4 years and expire in 10 years after the grant date. As of December 31, 2006 a total of 3.3 million shares had been authorized for grant under the Company's stock-based compensation plans. The number of common shares reserved for granting of future awards to employees and directors under these plans was 0.4 million at December 31, 2006. The remaining unrecognized compensation expense on stock options at December 31, 2006 was \$0.5 million. The weighted average period over which the cost is expected to be recognized is approximately 2 years.

As of December 31, 2006 the Company had three equity compensation plans under which our equity securities have been authorized for issuance to our employees and/or directors: the 2000 Employee Stock Purchase Plan, as amended (see note 15b), the 1993 Employee, Director and Consultant Stock Option Plan, as amended (the 1993 plan); and the 1997 Employee, Directors and Consultant Stock Option Plan, as amended. The 1993 Plan has expired and there are no options available for issuance; however, the 1993 Plan continues to govern all options, awards and other grants granted and outstanding under the 1993 Plan.

Distribution and Dilutive Effect of Options

The following table illustrates the grant dilution and exercise dilution for the years ended December 31:

	<u>2004</u>	<u>2005</u>	<u>2006</u>
Shares of common stock outstanding	<u>10,719,595</u>	<u>10,816,029</u>	<u>10,915,481</u>
Granted	242,700	304,500	201,721
Canceled/forfeited	(66,169)	(331,473)	(167,573)
Expired	<u>--</u>	<u>--</u>	<u>--</u>
Net options granted	176,531	(26,973)	34,148
Grant dilution (1)	1.6%	0.0%	0.3%
Exercised	550	--	1,025
Exercised dilution (2)	0.0%	--	0.0%

(1) The percentage for grant dilution is computed based on net options granted as a percentage of shares of common stock outstanding.

(2) The percentage for exercise dilution is computed based on options exercised as a percentage of shares of common stock outstanding.

Basic and diluted shares outstanding for the twelve months ended December 31, 2004, December 31, 2005 and December 31, 2006 were 10,665,842, 10,798,933, 10,737,924, 10,812,514, 10,853,304 and 10,979,783 shares respectively. During the twelve months ending December 31, 2006, the dilutive effect of in the money employee stock options was 126,479 shares or 1.1% of the basic shares outstanding based on the Company's average share price of \$1.70.

IBIS TECHNOLOGY CORPORATION

NOTES TO FINANCIAL STATEMENTS - (Continued)

A summary of stock option activity under the plans is as follows:

	<u>Options Outstanding</u>		<u>Weighted average exercise price of shares under plan</u>
	<u>Options available for Grant</u>	<u>Shares</u>	
Balance outstanding at December 31, 2003	82,700	1,172,254	\$ 15.69
Granted	(242,700)	242,700	4.99
Exercised	--	(550)	5.56
Cancelled/forfeited	66,169	(66,169)	9.78
Expired	(47,951)	--	--
Additional shares reserved	<u>300,000</u>	<u>--</u>	<u>--</u>
Balance outstanding at December 31, 2004	158,218	1,348,235	\$ 14.06
Granted	(304,500)	304,500	1.46
Exercised	--	--	--
Cancelled/forfeited	331,473	(331,473)	12.95
Expired	--	--	--
Additional shares reserved	<u>--</u>	<u>--</u>	<u>--</u>
Balance outstanding at December 31, 2005	185,191	1,321,262	\$ 11.43
Granted	201,721)	201,721	3.17
Exercised	--	(1,025)	1.36
Cancelled/forfeited	167,573	(167,573)	16.42
Expired	(10,117)	--	--
Additional shares reserved	<u>300,000</u>	<u>--</u>	<u>--</u>
Balance outstanding at December 31 2006	<u>440,926</u>	<u>1,354,385</u>	<u>\$ 9.59</u>

The following table summarizes information concerning outstanding and exercisable options as of December 31, 2006:

<u>Options Outstanding</u>			<u>Options Exercisable</u>			
<u>Range Exercise prices</u>	<u>Number outstanding</u>	<u>Weighted average remaining contractual life (years)</u>	<u>Weighted average outstanding option price</u>	<u>Aggregate Intrinsic value</u>	<u>Number exercisable</u>	<u>average exercise price</u>
\$.01 - 6.00	726,221	8.0	\$ 3.07	\$7,034	263,311	\$ 3.95
\$ 6.01 - 9.00	150,554	5.6	\$ 7.91		125,554	\$ 7.91
\$ 9.01 - 13.50	306,035	3.0	\$ 10.19		298,660	\$ 10.16
\$ 13.51 - 20.26	42,575	3.8	\$ 18.29		42,575	\$ 18.29
\$ 20.27 - 30.37	10,250	2.7	\$ 24.10		10,250	\$ 24.10
\$ 30.38 - 45.55	13,250	3.3	\$ 37.27		13,250	\$ 37.27
\$ 45.56 - 68.32	104,500	3.0	\$ 46.33		104,500	\$ 46.33
\$ 68.33 - 98.71	<u>1,000</u>	3.2	\$ 89.94	<u>-</u>	<u>1,000</u>	\$ 89.94
	<u>1,354,385</u>			<u>\$7,034</u>	<u>859,100</u>	

The aggregate intrinsic value in the preceding table represents the total pretax intrinsic value, based on the Company's closing stock price of \$1.48 as of December 31, 2006, which would have been received by the option holders had all option holders exercised their options as of that date. The fair value of stock options vested at December 31, 2006 and December 31, 2005 was \$4.9 million and \$5.4 million, respectively. The total number of in-the-money options exercisable as of December 31, 2006 was 50,075. As of December 31, 2006, 859,100 outstanding options were exercisable, and the weighted average exercise price was \$13.41.

IBIS TECHNOLOGY CORPORATION

NOTES TO FINANCIAL STATEMENTS - (Continued)

Valuation and Expense Information under SFAS 123(R)

The following table summarizes stock-based compensation expense related to employee stock options and employee stock purchases under SFAS123 (R) for the twelve months ended December 31, 2006 which was allocated as follows:

	Twelve Months Ended December 31, 2006 (in thousands)
Cost of sales	\$ 18
Research and development	118
Marketing and selling	45
General and administration	<u>214</u>
Stock-based compensation expense included in operating expenses	<u>\$395</u>

As of December 31, 2006 the Company capitalized \$4 thousand of stock-based compensation in inventory. The Company did not recognize any tax benefits on the stock-based compensation recorded in the periods based on the current tax status of the Company.

The table below reflects reported net loss per share, basic and diluted for the twelve months ended December 31, 2004 and 2005 compared with the pro forma information as required by SFAS 123(R).

	<u>Twelve Months Ended December 31,</u>	
	<u>2004</u>	<u>2005</u>
Net loss as reported for prior periods (1)	\$(10,918,541)	\$(9,245,305)
Stock-based compensations expense related to employee stock options and employee stock purchases (2)	<u>(1,284,491)</u>	<u>(717,379)</u>
Net loss including the effect of stock based compensation expense (3)	<u>\$(12,203,032)</u>	<u>\$(9,962,684)</u>
Per share information, basic and diluted:		
Net loss as reported for the prior period (1)	\$ (1.02)	\$ (0.86)
Net loss including the effect of stock-based compensation expense (3)	\$ (1.14)	\$ (0.93)

(1) Net loss and net loss per share prior to 2006 did not include stock-based compensation expense related to employee stock options and employee stock purchases under SFAS123 because we did not adopt the recognition provisions of SFAS123.

(2) Stock-based compensation expense is calculated on the pro forma application of SFAS123 as previously disclosed in the notes to the Financial Statements.

IBIS TECHNOLOGY CORPORATION

NOTES TO FINANCIAL STATEMENTS - (Continued)

(3) Net loss and net loss per share represents pro forma information based on SFAS123 as previously disclosed in the notes to the Financial Statements.

Pro Forma Information Under SFAS 123 for Periods Prior to Fiscal 2006

The weighted average estimated fair value of employee stock options granted during the twelve months ended December 31, 2004 and December 31, 2005 was \$3.27 and \$1.05, respectively, using the Black Scholes option-pricing model with the following weighted average assumptions:

	Twelve Months Ended <u>December 31, 2004</u>	Twelve Months Ended <u>December 31, 2005</u>
Expected volatility	96.39%	97.62%
Risk free interest rate	2.87%	2.91%
Dividend yield	0.00	0.00
Expected option life (10 year contractual life options)	4.00	4.00

For purposes of pro forma disclosures under SFAS 123, the estimated fair value of the options is assumed to be amortized to expense over the options' vesting period.

The weighted-average estimated fair value of employee stock options granted during the twelve months ended December 31, 2006 was \$2.31 per share using the Black Scholes option-pricing model with the following weighted-average assumptions:

	Twelve Months Ended <u>December 31, 2006</u>
Expected volatility	102.49%
Risk free interest rate	4.70%
Dividend yield	0.00
Expected option life (10 year contractual life options)	6.25

The expected life of employee stock options is the anticipated average time that an option will be outstanding. The Company chose to use the simplified method provided under SAB107 to estimate the expected term for "plain vanilla" stock options. The expected term as calculated under the simplified method is 6.25 years.

The Company determined the expected volatility of the stock price by using a period equal to the expected life of the stock options, 6.25 years. Volatility was measured as the standard deviation of the difference in the natural logarithms of the stock over the expected life of the options using the daily closing stock price. This resulted in the volatility of 102.49 percent.

The risk-free interest rate assumption is based upon observed treasury bill interest rates (risk free) appropriate for the expected term of the Company's employee stock options.

As stock-based compensation expense recognized in the Statement of Operations for the twelve months ended December 31, 2006 is actually based on awards ultimately expected to vest, it has been reduced for annualized estimated forfeitures of 14.18%. SFAS 123 (R) requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates.

IBIS TECHNOLOGY CORPORATION

NOTES TO FINANCIAL STATEMENTS - (Continued)

Forfeitures were estimated based on historical experience and the Company intends to review the forfeiture estimates on a quarterly basis.

(b) Employee Stock Purchase Plan

On February 24, 2000, the Board of Directors adopted the Ibis Technology Corporation 2000 Employee Stock Purchase Plan (the "Purchase Plan") pursuant to which a total of 300,000 shares of the Company's Common Stock may be sold to eligible employees of the Company at a 15% discount from the market value of the shares. The stockholders approved the plan at the May 2000 Annual Stockholders Meeting. On February 17, 2005, the Board of Directors approved an amendment to the 2000 Employee Stock Purchase Plan to increase by 300,000 shares the aggregate number of shares of Common stock that can be sold to eligible employees. The stockholders approved this amendment at the May 2005 Annual Stockholders Meeting. Under the terms of the Purchase Plan, employees may elect to have up to 15% of their base earnings withheld to purchase these shares during each offering period, which is a six-month period. The purchase price under the Purchase Plan is 85% of the lesser of the market price on the beginning or the end of the offering period. Approximately 55% of eligible employees participated in the Purchase Plan in the initial offering period, 51% in 2004, 51% in 2005, and 51% in 2006. During 2004, 2005, and 2006, the Company sold 67,875, 96,434 and 98,427 shares, respectively, to employees under the Purchase Plan.

(c) Warrants

In February 2007, in connection with the first closing of a two step financing agreement, the Company issued 1,050,000 Common Stock warrants exercisable for Common Stock at a strike price of \$1.50 per share. Additionally, the Company plans to issue approximately 1,483,000 Common Stock warrants exercisable for Common Stock, also at a strike price of \$1.50 per share, in a second closing, subject to stockholder approval at the Company's annual stockholder meeting, which is expected to be held on May 10, 2007.

In connection with the transaction, the Company also entered into a Registration Rights Agreement with the Investors. The Company will pay a placement fee to a placement agent, which includes a cash fee equal to 5% of the Company's gross proceeds from the agreement, and warrants exercisable for Common Stock with a dollar value also equal to 5% of the Company's gross proceeds from the agreement. All of the securities will be sold in a private placement pursuant to Regulation D of the Securities Act of 1933, as amended (the "Act"), solely to accredited investors, as defined in Rule 501 of the Act.

(16) Significant Customers and Concentration of Business Risk

The Company sells its implanters to a limited number of semiconductor manufacturers primarily in the United States and the Pacific Rim.

Significant customer revenue is shown in dollar amounts and as a percentage of total revenue as follows:

<u>Year Ended</u>	<u>Significant Customers</u>	<u>Amount</u>	<u>%</u>
December 31, 2004	1	\$7,000,000	88%
December 31, 2005	--	\$ 0	--%
December 31, 2006	1	\$13,325,000	95%

Accounts receivable from significant customers was \$0 at December 31, 2005 and \$150,000 at December 31, 2006.

IBIS TECHNOLOGY CORPORATION

NOTES TO FINANCIAL STATEMENTS - (Continued)

Export sales to unaffiliated customers in 2004, 2005 and 2006 were 95%, 81% and 99% of total revenues, respectively.

During 2004, 2005 and 2006, the Company purchased substantially all of its raw materials, components and subassemblies for its implanters from a limited group of suppliers. Disruption or termination of certain of these sources could occur and such disruptions could have a material adverse effect on the Company's business and results of operations.

(17) Other Income

In 2006 the Company recognized a gain in other income of approximately \$800,000, which is the result of the expiration of an option to place an order for an additional implanter prior to the end of 2006. This payment was received in the fiscal year ended December 31, 2006.

(18) Discontinued Operations

In July 2004, the Company announced its decision to discontinue its wafer manufacturing business to concentrate its efforts on supplying equipment and process technology to its equipment customers. As a result, the Company recorded an estimated loss on disposal of approximately \$2.1 million for the year ended December 31, 2004, consisting principally of the write off of 300 mm wafer inventory not expected to be used in the Company's ongoing R&D efforts (\$1.2 million) and the net impairment of wafer manufacturing assets expected to be sold (\$0.9 million). In addition to write-offs of wafer manufacturing assets, the Company also recognized \$78 thousand in severance costs associated with employee terminations. For the period ending December 31, 2005 the discontinued Operations generated a net gain of \$0.2 million. The net gain of \$0.2 million was the result of the reduction of \$0.1 million of expenses associated with the closure of the wafer operation and \$0.1 million from scrap recovery. For the period ending December 31, 2006 there was no discontinued operations gain or loss recognized by the company. In 2006 and 2005, the Company has separately disclosed the operating, investing, and financing portions of the cash flows attributable to discontinued operations, which in 2004 were reported on a combined basis as a single amount.

(19) Industry Segments

The Company's reportable segments are SIMOX Equipment and Other Products or Services. For purposes of segment reporting, equipment spares and field service revenue are combined and reported as SIMOX Equipment. Government contracts, other services and license revenue are combined and reported as Other Products or Services.

The accounting policies of the operating segments are the same as those described in the summary of significant accounting policies. The Company generally evaluates operating performance based on income or loss before interest and taxes.

The table below provides information for the years ended December 31, 2004, 2005 and 2006 pertaining to the Company's two industry segments after the discontinuance of the wafer manufacturing business.

IBIS TECHNOLOGY CORPORATION

NOTES TO FINANCIAL STATEMENTS - (Continued)

	<u>SIMOX Equipment</u>	<u>Other Products or Services</u>	<u>Total</u>
<u>Net Revenues</u>			
Year Ended December 31, 2004	\$7,535,270	\$390,975	\$7,926,245
Year Ended December 31, 2005	277,684	324,621	602,305
Year Ended December 31, 2006	13,427,035	560,384	13,987,419
<u>Operating Income (Loss)</u>			
Year Ended December 31, 2004	(4,036,440)	375,606	(3,660,834)
Year Ended December 31, 2005	(7,785,117)	324,621	(7,460,496)
Year Ended December 31, 2006	1,041,270	560,384	1,601,654
<u>Assets</u>			
December 31, 2004	13,839,523	187,321	14,026,844
December 31, 2005	12,937,175	79,628	13,016,803
December 31, 2006	8,630,273	188,332	8,818,605
<u>Capital Expenditures</u>			
Year Ended December 31, 2004	713,349	--	713,349
Year Ended December 31, 2005	149,648	--	149,648
Year Ended December 31, 2006	41,804	--	41,804
<u>Depreciation and Amortization of Property and Equipment</u>			
Year Ended December 31, 2004	1,884,687	--	1,884,687
Year Ended December 31, 2005	1,671,836	--	1,671,836
Year Ended December 31, 2006	1,474,900	--	1,474,900

IBIS TECHNOLOGY CORPORATION

NOTES TO FINANCIAL STATEMENTS - (Continued)

The table below provides the reconciliation of reportable segment operating income (loss), assets, capital expenditures, and depreciation and amortization to the Company's totals.

Segment Reconciliation	Years Ended December 31, -		
	2004	2005	2006
Net Income (loss) :			
Total operating income (loss) for reportable segments	\$ (3,660,834)	\$ (7,460,496)	\$ 1,601,654
Corporate general & administrative expenses	(2,221,167)	(2,216,748)	(2,400,645)
Net other income	242,085	217,953	1,205,132
Income tax expense	1,256	1,256	1,256
Income (loss) from discontinued operations	<u>(5,277,369)</u>	<u>215,242</u>	<u>--</u>
Net income (loss)	<u>\$ (10,918,541)</u>	<u>\$ (9,245,305)</u>	<u>\$ 404,885</u>
Assets:			
Total assets for reportable segments	\$ 14,026,844	\$ 13,016,803	\$ 8,818,605
Cash & cash equivalents not allocated to segments	7,726,072	6,856,874	4,812,477
Other unallocated assets	<u>529,724</u>	<u>118,711</u>	<u>157,759</u>
Total assets	<u>\$ 22,282,640</u>	<u>\$ 19,992,388</u>	<u>\$ 13,788,841</u>
Capital Expenditures:			
Total capital expenditures for reportable segments	\$ 713,349	\$ 149,648	\$ 41,804
Corporate capital expenditures	<u>7,653</u>	<u>--</u>	<u>--</u>
Total capital expenditures	<u>\$ 721,002</u>	<u>\$ 149,648</u>	<u>\$ 41,804</u>
Depreciation and Amortization:			
Total depreciation & amortization for reportable segments	\$ 1,884,687	\$ 1,671,836	\$ 1,474,900
Corporate depreciation & amortization	<u>78,029</u>	<u>75,153</u>	<u>60,956</u>
Total depreciation & amortization	<u>\$ 1,962,716</u>	<u>\$ 1,746,989</u>	<u>\$ 1,535,856</u>

(20) Selected Quarterly Financial Data (Unaudited)

The Table below provides information for the years 2005 and 2006.

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
2005				
Total sales and revenue	\$ 166,655	\$ 198,920	\$ 162,793	\$ 73,937
Gross profit (loss)	(133,428)	(23,227)	23,220	(14,732)
Profit (loss) from continuing operations	(2,767,960)	(2,643,174)	(2,145,844)	(2,120,266)
Net loss	(2,686,942)	(2,644,903)	(1,920,638)	(1,992,822)
Net loss per common share	(0.25)	(0.25)	(0.18)	(0.19)
2006				
Total sales and revenue	\$ 6,260,822	\$ 42,411	\$ 7,223,863	\$ 460,323
Gross profit (loss)	3,588,030	(11,073)	4,266,614	250,248
Profit (loss) from continuing operations	1,364,886	(2,166,062)	2,237,233	(1,031,172)
Net income (loss)	1,364,886	(2,166,062)	2,237,233	(1,031,172)
Net income (loss) per common share	0.12	(0.20)	0.21	(0.09)

IBIS TECHNOLOGY CORPORATION

NOTES TO FINANCIAL STATEMENTS - (Continued)

(21) Subsequent Events

On February 16, 2007, Ibis Technology Corporation, a Massachusetts corporation (the "Company") entered into a Purchase Agreement (the "Purchase Agreement") pursuant to which the Company plans to sell unregistered shares of its common stock, par value \$0.08 per share ("Common Stock"), and warrants ("Warrants") exercisable for Common Stock to the investors identified in the Purchase Agreement (the "Investors") for an aggregate purchase price of \$5.3 million. In connection with the transaction, the Company also entered into a Registration Rights Agreement (the "Registration Rights Agreement") with the Investors. The Company will pay a placement fee to a placement agent, which includes a cash fee equal to 5% of the Company's gross proceeds and warrants exercisable for Common Stock with a dollar value equal to 5% of the Company's gross proceeds. All of the securities will be sold in a private placement pursuant to Regulation D of the Securities Act of 1933, as amended (the "Act"), solely to accredited investors, as defined in Rule 501 of the Act. Set forth below is a brief description of the terms and conditions of the Purchase Agreement, the Registration Rights Agreement and the Warrants, which description is qualified in its entirety by reference to the full text of the underlying documents which have been filed as exhibits hereto.

Purchase Agreement. Pursuant to the Purchase Agreement, the Company agreed to sell approximately 1.4 million shares of Common Stock and Warrants exercisable for up to approximately 1.05 million additional shares of Common Stock for aggregate gross cash proceeds of approximately \$2.2 million at an initial closing, which occurred on February 20, 2007 (the "Initial Closing"). In addition, subject to stockholder approval, the Company agreed to sell approximately 2.0 million additional shares of Common Stock and Warrants exercisable for up to approximately 1.5 million additional shares of Common Stock for aggregate gross cash proceeds of approximately \$3.1 million at a second closing expected to occur after the Company's annual stockholder meeting expected to be held on May 10, 2007. The Common Stock sold pursuant to the Purchase Agreement (the "Shares"), the Warrants and the shares of Common Stock issuable upon exercise of the Warrants (the "Warrant Shares") will be restricted securities as that term is defined in the Act.

Registration Rights Agreement. Pursuant to the Registration Rights Agreement, the Company agreed to file with the Securities and Exchange Commission a registration statement covering resales of the Shares and Warrant Shares. The fees and expenses of such registration will be borne by the Company. The Registration Rights Agreement includes customary indemnification provisions.

Warrants. The Warrant issued to each Investor is exercisable for up to 75% of the number of shares of Common Stock purchased by such Investor pursuant to the Purchase Agreement at an exercise price of \$1.50 per share. The exercise price and number of shares issuable upon exercise of the Warrants are subject to adjustment in the event of stock dividends, stock splits, dilutive issuances and other similar events. The Warrants have a term of five years, are to be fully exercisable from the date of issuance, and may be exercised on a cashless basis under specified conditions.

Item 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

Not applicable.

Item 9A. CONTROLS AND PROCEDURES

- a)** *Evaluation of Disclosure Controls and Procedures.* As of the end of the period covered by this report, the Company carried out an evaluation, under the supervision and with the participation of the Company's management including the Company's President and Chief Executive Officer and Chief Financial Officer of the effectiveness of the design and operation of the company's disclosure controls and procedures, as defined in Exchange Acts Rules 13a-15(e) and 15d-15(e). Based upon that evaluation the Company's President and Chief Executive Officer and Chief Financial Officer concluded that the Company's disclosure controls and procedures are effective in enabling the Company to record, process, summarize, and report information required to be included in the Company's periodic SEC filings within the required time period.
- b)** *Changes in Internal Controls over Financial Reporting.* There were no changes in the Company's internal controls over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act) during the fourth quarter of fiscal year 2006 that has materially affected, or would be reasonably likely to materially affect, the Company's internal controls over financial reporting.

Item 9B. Other Information

Not applicable.

PART III

Item 10. DIRECTORS AND OFFICERS OF THE REGISTRANT

The Response to this item is incorporated by reference from the discussion responsive thereto under the captions "Management" and "Section 16(a) Beneficial Ownership Reporting Compliance" in the Company's Proxy Statement for the 2007 Annual Meeting of Stockholders.

Item 11. EXECUTIVE COMPENSATION

The response to this item is incorporated by reference from the discussion responsive thereto under the caption "Executive Compensation" in the Company's Proxy Statement for the 2007 Annual Meeting of Stockholders.

Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The response to this item is incorporated by reference from the discussion responsive thereto under the caption "Share Ownership" in the Company's Proxy Statement for the 2007 Annual Meeting of Stockholders.

Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

The response to this item is incorporated by reference from the discussion responsive thereto under the captions "Certain Transactions" and "Executive Compensation—Employment Contracts and Change of Control Arrangements" in the Company's Proxy Statement for the 2007 Annual Meeting of Stockholders.

Item 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The response to this item is incorporated by reference from the discussion responsive thereto under the caption "Independent Registered Public Accountants" "Audit and Non Audit Fees" in the Company's Proxy Statement for the 2007 Annual Meeting of Stockholders.

Item 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULE, AND REPORTS ON FORM 8-K

(a) The following documents are filed as part of this Annual Report on Form 10-K.

(1) and (2) See "Index to Financial Statements and Financial Statement Schedule" at Item 8 to this Annual Report on Form 10-K. Other financial statement schedules have not been included because they are not applicable or the information is included in the financial statements or notes thereto.

(3) Exhibits

The following is a list of exhibits filed as part of this Annual Report on Form 10-K.

<u>Exhibit Number</u>	<u>Description</u>
1	- Underwriting Agreement dated October 16, 2003, between the Registrant and CDC Securities (Filed as Exhibit 1.1 to the Company's Current Report on Form 8-K filed on October 17, 2003 and incorporated herein by reference)
3.1	- Restated Articles of Organization of Registrant (Filed as Exhibit 3.1 to the Company's Quarterly Report on Form 10-Q for the Quarter Ended September 30, 2000 and incorporated herein by reference)
3.1.1	- Articles of Amendment to the Restated Articles of Organization of the Registrant (Filed as Exhibit 3.1.1 to the Company's Quarterly Report on Form 10-Q for the Quarter Ended September 30, 2000 and incorporated herein by reference)
3.1.2	- Articles of Amendment to the Restated Articles of Organization of the Registrant (Filed as Exhibit 3.1.2 to the Company's Quarterly Report on Form 10-Q for the Quarter Ended September 30, 2000 and incorporated herein by reference)
3.2	- Restated Bylaws of Registrant (Filed as Exhibit 3.1 to the Company's Quarterly Report on Form 10Q for the Quarter Ended September 30, 2004 and incorporated herein by reference)
4.1	- Article 4 of Restated Articles of Organization (Filed as Exhibit 4.1*)
4.2	- Form of Common Stock Certificate (Filed as Exhibit 4.2*)
4.3	- Purchase Agreement dated February 16, 2007 between the Registrant and various Investors (filed as Exhibit 4.1 to our Current Report on Form 8-K filed on February 21, 2007 and incorporated herein by reference)
4.4	- Registration Rights Agreement dated February 16, 2007 between the Registrant. and various Investors (filed as Exhibit 4.2 to our Current Report on Form 8-K filed on February 21, 2007 and incorporated herein by reference).
**4.5	- Form of Warrant to Purchase Shares of Common Stock.
**4.6	- Placement Agent Form of Warrant to Purchase Shares of Common Stock. Hilton Glavish, and Zimec, Inc. (Filed as Exhibit 10.2*)
10.1	- Master Agreement, dated as of August 7, 1992, among the Registrant, Dr. Hilton Glavish, and Zimec, Inc. (Filed as Exhibit 10.1*)
10.2	- Sublicense Agreement, dated December 21, 1993, among the Registrant, Dr. Hilton Glavish, and Zimec, Inc. (Filed as Exhibit 10.2*)
@10.3	- Business Development Agreement, dated as of July 15, 1994, between the Registrant and Mitsubishi Materials Corporation (Filed as Exhibit 10.3*)
10.4	- Lease Agreement, dated December 22, 1987, as amended, between the Registrant and Thomas J. Flatley d/b/a The Flatley Company ("Flatley") (Filed as Exhibit 10.4*)
10.4A	- Fifth Amendment to Lease Agreement, dated February 4, 1997 between the Registrant and Flatley (Filed as Exhibit 10.4 to the Registrant's Quarterly Report on Form 10-Q for the Quarter ended March 31, 1997 and Incorporated herein by reference).
10.5	- Form of Noncompetition, Nondisclosure and Assignment of Inventions Agreement between the Registrant and each current employee of the Registrant (Filed as Exhibit 10.11*)
†10.6	- Ibis Technology Corporation 1993 Employee, Director and Consultant Stock Option Plan as amended (Filed as Exhibit 10.15 to the Company's Quarterly Report on Form 10-Q for the Quarter Ended June 30, 1996 and Incorporated herein by reference)
†10.7	- Form of Stock Option Agreement under 1993 Employee, Director and Consultant Stock Option Plan (Filed as Exhibit 10.16*)
10.9	- Exclusive Patent License Agreement, dated November 1, 1994, between the Registrant and Superior Limited (Filed as Exhibit 10.26*)

- 10.10 - License Agreement, dated as of September 1, 1994, between the Registrant and Nissin Electric Co., Ltd. (Filed as Exhibit 10.27*)

<u>Exhibit Number</u>	<u>Description</u>
10.11	- Equipment Purchase Master Agreement, dated as of May 22, 1996, between Registrant, and IBM (Filed as Exhibit 10.1 to the Company's Current Report on Form 8-K/A (File No.0-13078) filed on September 12, 1996 and incorporated herein by reference).
†10.12	- Amended and Restated Ibis Technology Corporation 1997 Employee, Director and Consultant Stock Option Plan (Filed as Exhibit 99.1 to the Company's Form S-8 (File No. 333-45247) filed on January 30, 1998, as amended May 18, 2001 and June 17, 2004 and incorporated herein by reference).
10.13	- Form of Stock Option Agreement under 1997 Employee, Director and Consultant Stock Option Plan.
@10.14	- Licensing and Development Agreement, dated June 9, 1998, between the Registrant and IBM (Filed as Exhibit 10.41 to the Company's Quarterly Report on Form 10-Q for the Quarter Ended June 30, 1998 and incorporated herein by reference)
10.15	- Sixth Amendment to Lease dated July 16, 1998, amending Lease Agreement dated December 22, 1987 between the Company and Thomas J. Flatley d/b/a the Flatley Company (Filed as Exhibit 10.42 to the Company's Quarterly Report on Form 10-Q for the Quarter Ended September 30, 1998 and incorporated herein by reference)
†10.16	- Restated Change of Control Agreement, dated March 24, 2005, between the Registrant and Martin J. Reid. (Filed as Exhibit 10.17 to the Company's Annual Report on Form 10-K for the Year Ended December 31, 2004 and incorporated herein by reference).
@10.17	- License Agreement dated July 1, 1999, between the Registrant and Mitsubishi Materials Silicon Corporation (Filed as Exhibit 10.45 to the Company's Annual Report on Form 10-K for the Year Ended December 31, 1999 and incorporated herein by reference)
10.18	- Ibis Technology Corporation 2000 Employee Stock Purchase Plan (Filed as Exhibit 99.1 to the Company's Form S-8 (File No. 333-36706) filed on May 10, 2000, as amended May 31, 2005 and incorporated herein by reference)
@10.19	- Advantox 150 License Agreement dated November 1, 2000, between the Registrant and Mitsubishi Materials Silicon Corporation (Filed as Exhibit 10.48 to the Company's Annual Report on Form 10-K for the Year Ended December 31, 2000 and incorporated herein by reference)
†10.20	- Employment Agreement, dated November 12, 2003 between the Registrant and Martin J. Reid
@10.21	- License Agreement dated December 15, 2000, between the Registrant and International Business Machines Corporation ("IBM") (Filed as Exhibit 10.50 to the Company's Annual Report on Form 10-K for the Year Ended December 31, 2000 and incorporated herein by reference)
10.22	- Patent License Agreement dated December 15, 2000, between the Registrant and IBM (Filed as Exhibit 10.51 to the Company's Annual Report on Form 10-K for the Year Ended December 31, 2000 and incorporated herein by reference)

<u>Exhibit Number</u>	<u>Description</u>
@10.23	- Amended and Restated License Agreement dated November 14, 2002, between the Registrant and IBM (Filed as Exhibit 10.30 to the Company's Annual Report on Form 10-K for the Year Ended December 31, 2002 and incorporated herein by reference)
10.24	- Amendment to the Patent License Agreement dated November 14, 2002, between the Registrant and IBM (Filed as Exhibit 10.31 to the Company's Annual Report on Form 10-K for the Year Ended December 31, 2002 and incorporated herein by reference)
†10.25	- Change of Control Agreement, dated March 24, 2005, between the Registrant and William J. Schmidt. (Filed as Exhibit 10.31 to the Company's Annual Report on Form 10-K for the Year Ended December 31, 2004 and incorporated herein by reference)
†10.26	- Amended and restated Ibis Technology Corporation 1997 Employee, Directors and Consultant Stock Option Plan (Filed as Exhibit 99.1 to the Company's Form S-8 (file No. 333-45247) filed on January 30, 1998, as amended May 18, 2001, June 17, 2004 and May 26, 2006 and incorporated herein by reference).
10.27	- Ninth Amendment to Lease dated April 3, 2006 between the Company and Cherry Hill Corporation Center LLC amending Lease Agreement dated December 22, 1987 between the company and Thomas J. Fatly d/b/a the Flatly Company (Filed as Exhibit 10.42 to the Company's Quarterly Report as Form 10-Q for the Quarter Ended September 30, 1998 and incorporated herein by reference.)
†10.28	- Amendment to Employment Agreement dated November 12, 2003 between the Registrant and Martin J. Reid, (Filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed on August 17, 2006 and incorporated herein by reference)
11	- Statement regarding computation of per share income (loss)
23	- Report and Consent on Financial Statement Schedule of KPMG LLP
31.1	- CEO Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2	- CFO Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1	- CEO Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (18 U.S. Section 1350)
32.2	- CFO Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (18 U.S. Section 1350)

* Previously filed with the Commission as Exhibits to, and incorporated herein by reference from, the Company's Registration Statement filed on Form S-1, File No. 333-1174, effective April 2, 1996.

** Filed herewith.

@ Confidential treatment previously obtained from the Securities and Exchange Commission. The portions of the document for which confidential treatment has been granted are marked "Confidential" and such confidential portions have been filed separately with the Securities and Exchange Commission.

† Management contract or compensatory plan, contract or arrangement.

Where a document is incorporated by reference from a previous filing, the Exhibit number of the document in that previous filing is indicated in parentheses after the description of such document.

(B) *Financial Statement Schedules*

Schedule II -- Valuation and Qualifying Accounts

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, in Danvers, Massachusetts on March 29, 2007.

IBIS TECHNOLOGY CORPORATION

By: /s/ Charles M. McKenna, Ph.D.
Charles M. McKenna, Ph. D.
President

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

<u>Signatures</u>	<u>Title</u>	<u>Date</u>
By: <u>/s/ Charles M. McKenna, Ph.D.</u> Charles M. McKenna, Ph.D	President and Chief Executive Officer	March 26, 2007
By: <u>/s/ William J. Schmidt</u> William J. Schmidt	Chief Financial Officer, Treasurer, Clerk, (principal financial and accounting officer)	March 26, 2007
By: <u>/s/ Martin J. Reid</u> Martin J. Reid	Chairman and Director	March 26, 2007
By: <u>/s/ Dimitri A. Antoniadis</u> Dimitri A. Antoniadis, Ph.D.	Director	March 26, 2007
By: <u>/s/ Robert L. Gable</u> Robert L. Gable	Director	March 26, 2007
By: <u>/s/ Leslie B. Lewis</u> Leslie B. Lewis	Director	March 26, 2007
By: <u>/s/ Donald McGuinness</u> Donald McGuinness	Director	March 26, 2007
By: <u>/s/ Lamberto Raffaelli</u> Lamberto Raffaelli	Director	March 26, 2007
By: <u>/s/ Cosmo S. Trapani</u> Cosmo S. Trapani	Director	March 26, 2007

**IBIS TECHNOLOGY CORPORATION
VALUATION AND QUALIFYING ACCOUNTS**

For the Years Ended December 31, 2004, 2005 and 2006

<u>Description</u>	<u>Balance at Beginning of Period</u>	<u>Reclass (1)</u>	<u>Expense</u>	<u>Amounts Written Off</u>	<u>Balance at End of Period</u>
Allowance for Doubtful Accounts					
December 31, 2004.....	65,000	--	(37,470)	(2,530)	25,000
December 31, 2005.....	25,000	--	--	--	25,000
December 31, 2006.....	25,000	--	(25,000)	--	--
Reserve for Inventory Obsolescence					
December 31, 2004.....	1,436,000	4,603,000	226,000	(2,493,000) (2)	3,772,000
December 31, 2005.....	3,772,000	--	--	(100,000)	3,672,000
December 31, 2006.....	3,672,000	--	--	(225,000)	3,447,000

- (1) At December 31, 2003 equipment inventory and the related reserves were included in construction in progress within property and equipment. The balances were reclassified to inventory in the second quarter of fiscal 2004 in connection with the discontinuance of the wafer manufacturing business.
- (2) Includes inventory written off of \$1.2 million and inventory reserves included in discontinued operations of \$1.3 million.

IBIS TECHNOLOGY CORPORATION
STATEMENT RE: COMPUTATION OF PER SHARE LOSS

	<u>Years Ended December 31,</u>					
	<u>2004</u>		<u>2005</u>		<u>2006</u>	
	Diluted	Basic	Diluted	Basic	Diluted	Basic
Income (loss) from:						
Continuing operations	\$ (5,641,172)	\$ (5,641,172)	\$ (9,460,547)	\$ (9,460,547)	\$ 404,885	\$ 404,885
Discontinued operations	<u>(5,277,369)</u>	<u>(5,277,369)</u>	<u>215,242</u>	<u>215,242</u>	<u>--</u>	<u>--</u>
Net Income (loss)	<u>\$ (10,918,541)</u>	<u>\$ (10,918,541)</u>	<u>\$ (9,245,305)</u>	<u>\$ (9,245,305)</u>	<u>\$ 404,885</u>	<u>\$ 404,885</u>
Weighted average common shares						
Outstanding	10,665,842	<u>10,665,842</u>	10,737,924	<u>10,737,924</u>	10,853,304	<u>10,853,304</u>
Potential common share						
equivalents	--		--		<u>126,479</u>	
Weighted average shares						
outstanding	<u>10,665,842</u>		<u>10,737,924</u>		<u>10,979,783</u>	
Earnings (loss) per common						
share and common share						
equivalents:						
Continuing operations	\$ (0.53)	\$ (0.53)	\$ (0.88)	\$ (0.88)	\$ 0.04	\$ 0.04
Discontinued operations	<u>(0.49)</u>	<u>(0.49)</u>	<u>0.02</u>	<u>0.02</u>	<u>--</u>	<u>--</u>
Net income (loss)	<u>\$ (1.02)</u>	<u>\$ (1.02)</u>	<u>\$ (0.86)</u>	<u>\$ (0.86)</u>	<u>\$ 0.04</u>	<u>\$ 0.04</u>

REPORT AND CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders
of Ibis Technology Corporation:

The audits referred to in our report dated March 26, 2007, included the related financial schedule for each of the years in the three-year period ended December 31, 2006, included in the annual report on Form 10-K. The financial statement schedule is the responsibility of the Company's management. Our responsibility is to express an opinion on the financial statement schedule based on our audits. Based on our opinion, such financial statement schedule, when considered in relation to the basic financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

We consent to the incorporation by reference in the registration statements (No.333-108438) on Form S-3, (No. 333-09237) on Form S-3, (No. 333-82497) on Form S-3, (No.333-09239) on Form S-8, (No.333-45247) on Form S-8, (No.333-36706) on Form S-8, (No.333-61184) on Form S-8, and (No.333-116568) on Form S-8 of Ibis Technology Corporation of our reports dated March 26], 2007, with respect to the balance sheets of Ibis Technology Corporation as of December 31, 2005 and 2006, and the related statements of operations, stockholders' equity, and cash flows, and the related financial statement schedule, for each of the years in the three-year period ended December 31, 2006, which reports appear in the December 31, 2006 annual report on Form 10-K of Ibis Technology Corporation, and to the reference to our firm under the heading "Selected Financial Data".

As described in note 2(k) to the financial statements, the Company adopted Statement of Financial Accounting Standards No. 123 (revised 2004), *Share-based Payment*, effective January 1, 2006.

/s/ KPMG LLP

Boston, Massachusetts
March 26, 2007

CERTIFICATION PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Charles M. McKenna, Ph.D., certify that:

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

Date: March 26, 2007

/s/ Charles M. McKenna, Ph.D.
Charles M. McKenna, Ph.D.
President and Chief Executive Officer

CERTIFICATION PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, William J. Schmidt, certify that:

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

Date: March 26, 2007

/s/ William J. Schmidt
William J. Schmidt
Chief Financial Officer

EXHIBIT 32.1

**CERTIFICATION PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002
(18 U.S.C. SECTION 1350)**

In connection with the accompanying Annual Report of Ibis Technology Corporation (the "*Company*") on Form 10-K for the fiscal year ended December 31, 2006 (the "*Report*"), I, Charles M. McKenna, Ph.D., Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company

Dated: March 26, 2007

/s/ Charles M. McKenna, Ph.D.

Charles M. McKenna, Ph.D.

President and Chief Executive Officer

EXHIBIT 32.2

**CERTIFICATION PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002
(18 U.S.C. SECTION 1350)**

In connection with the accompanying Annual Report of Ibis Technology Corporation (the "*Company*") on Form 10-K for the fiscal year ended December 31, 2006 (the "*Report*"), I, William J Schmidt Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company

Dated: March 26, 2007

/s/ William J. Schmidt

William J. Schmidt
Chief Financial Officer

MANAGEMENT AND CORPORATE INFORMATION

Board of Directors

Martin J. Reid

Director; Executive Chairman of the Board

Dimitri A. Antoniadis, Ph.D.

Director; Professor of Electrical Engineering, MIT

Robert L. Gable**

Director; Retired Chairman and CEO, Unitrode Corporation

Leslie B. Lewis* **

Director; Partner, Watermill Ventures

Donald McGuinness

Director; Retired Chairman, White Electronic Designs, Inc.

Lamberto Raffaelli*

Director; President, LNX Corporation

Cosmo S. Trapani*

Director; Director, Hittite Microwave Corporation

**Audit Committee*

***Compensation Committee*

Corporate Officers

Martin J. Reid

Executive Chairman

Charles M. McKenna, Ph.D.

President and CEO

William J. Schmidt

Chief Financial Officer and Treasurer

Robert P. Dolan

Vice President of Wafer Technology

Transfer Agent

Continental Stock Transfer & Trust Co.
New York, New York

General Counsel

Choate, Hall & Stewart LLP
Boston, Massachusetts

Independent Auditors

KPMG LLP
Boston, Massachusetts

Corporate Offices

Corporate Headquarters:
32 Cherry Hill Drive
Danvers, Massachusetts 01923

Annual Meeting

The 2006 Annual Meeting of Stockholders will be held on Thursday, May 10, 2007 at 10:00 a.m. at the offices of Ibis Technology Corporation, 32 Cherry Hill Drive, Danvers, Massachusetts.

Form 10-K

The Annual Report on Form 10-K filed with the Securities and Exchange Commission is available to stockholders upon written request to:

Investor Relations
Ibis Technology Corporation
32 Cherry Hill Drive
Danvers, Massachusetts 01923

Internet

Financial statements and other information on Ibis are available electronically on our website at www.ibis.com.

"SAFE HARBOR" STATEMENT UNDER THE PRIVATE SECURITIES LITIGATION REFORM ACT

This Annual Report may contain express or implied forward-looking statements regarding the Company, its financial condition and its future prospects, including those disclosed in the Company's Annual Report on Form 10-K for the year ended December 31, 2006. These statements are neither promises nor guarantees, but rather are subject to risks and uncertainties which could cause actual results to differ materially from those described in the forward-looking statements. All stockholders and potential stockholders are encouraged to review carefully the discussion of risks and uncertainties, as well as further details concerning the Company's business and other information contained in the Company's filings with the Securities and Exchange Commission, including the Company's Annual Report on Form 10-K for the year ended December 31, 2006, which is included with this report.



IBIS TECHNOLOGY CORPORATION

32 Cherry Hill Drive
Danvers, Massachusetts 01923
www.ibis.com

END

