

Cambridge Display Technology, Inc.

Form 10-K

March 31, 2005

Table of Contents

---

**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, 2004

OR

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

Commission File Number:

---

**CAMBRIDGE DISPLAY TECHNOLOGY, INC.**

(Exact name of registrant as specified in its charter)

---

Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

Delaware  
(State of other jurisdiction of

13-4085264  
(IRS Employer

incorporation or organization)

Identification No.)

c/o Cambridge Display Technology Limited,

2020 Cambourne Business Park  
Cambridge CB3 6DW, United Kingdom  
(Address of principal executive offices)

011-44-1954-713-600  
(Registrant's telephone number, including area code)

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

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

Common Stock, par value \$0.01 per share

---

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 (Section 229.405 of this chapter) 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 an accelerated filer. Yes  No

As of June 30, 2004, the last business day of the registrant's most recently completed second fiscal quarter, the registrant's Common Stock was not quoted on the Nasdaq National Market and there was no other established trading market therefor.

As of March 28, 2005, there were 19,485,483 shares of Common Stock, \$0.01 per share par value, outstanding.

**DOCUMENTS INCORPORATED BY REFERENCE**

Portions of the registrant's proxy statement to be filed with the Securities and Exchange Commission in connection with the solicitation of proxies for the registrant's 2005 Annual Meeting of Stockholders are incorporated by reference in Items 10, 11, 12, 13 and 14 of Part III of this Annual Report on Form 10-K.

**Table of Contents**

**TABLE OF CONTENTS**

	<b>Page</b>
<b><u>PART I</u></b>	
ITEM 1. <u>BUSINESS</u>	1
ITEM 2. <u>PROPERTIES</u>	15
ITEM 3. <u>LEGAL PROCEEDINGS</u>	16
ITEM 4. <u>SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS</u>	16
<b><u>PART II</u></b>	
ITEM 5. <u>MARKET FOR REGISTRANT'S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES</u>	17
ITEM 6. <u>SELECTED FINANCIAL DATA</u>	17
ITEM 7. <u>MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS</u>	20
ITEM 7A. <u>QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK</u>	49
ITEM 8. <u>FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA</u>	49
ITEM 9. <u>CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE</u>	50
ITEM 9A. <u>CONTROLS AND PROCEDURES</u>	50
ITEM 9B. <u>OTHER INFORMATION</u>	50
<b><u>PART III</u></b>	
ITEM 10. <u>DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT</u>	51
ITEM 11. <u>EXECUTIVE COMPENSATION</u>	51
ITEM 12. <u>SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS</u>	51
ITEM 13. <u>CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS</u>	51
ITEM 14. <u>PRINCIPAL ACCOUNTANT FEES AND SERVICES</u>	51
<b><u>PART IV</u></b>	
ITEM 15. <u>EXHIBITS AND FINANCIAL STATEMENT SCHEDULES</u>	52

**Table of Contents**

**CAUTIONARY STATEMENT  
CONCERNING FORWARD-LOOKING STATEMENTS**

This Annual Report on Form 10-K, including the information incorporated by reference contains some forward-looking statements as defined in the Private Securities Litigation Reform Act of 1995. This Annual Report on Form 10-K also contains information relating to us that is based on the beliefs of our management, as well as assumptions made by, and the information currently available to, our management. Among other things, these statements include, but are not limited to, the statements in this Annual Report on Form 10-K regarding:

the outcomes of our ongoing and future research and development activities, and those of our licensees, related to our P-OLED technology referred to below;

the potential commercial applications of our P-OLED technology, and of OLED products in general;

our ability to form and continue strategic relationships with manufacturers of P-OLED materials and displays;

successful commercialization of products including our P-OLED technology by our licensees;

the willingness of these manufacturers and licensees to continue to develop, manufacture and sell commercial products integrating our technology;

future demand for products using our P-OLED technology;

the comparative advantages and disadvantages of our technology versus competing technologies currently on the market;

the nature and potential advantages of any competing technologies that may be developed in the future;

our ability to compete against third parties with resources greater than ours;

our ability to maintain and improve our competitive position following the expiration of our fundamental patents;

the adequacy of protections afforded to us by the patents that we own or license and the cost to us of enforcing those protections;

our ability to obtain, expand and maintain patent protection in the future and to protect our unpatentable intellectual property;

the payments that we expect to receive in the future under our existing contracts and the terms that we are able to enter into with new licensees of our technology;

## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

exposure of our international operations and those of our licensees to significant risks;

our future capital requirements and our ability to obtain additional financing when needed; and

our future P-OLED technology licensing and other revenues and results of operations.

In addition, when used in this Annual Report on Form 10-K, including the documents incorporated by reference, the words estimate, project, believe, expect, intend, expect and similar expressions involving potential future developments are intended to identify forward-looking statements. All of these forward-looking statements reflect our current views with respect to future events and are subject to risks and uncertainties that could cause actual results to differ materially from those contemplated by the statements, including those risks discussed in this Annual Report on Form 10-K.

You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of this Annual Report on Form 10-K or, in the case of information incorporated by reference herein, the date we file such information with the SEC, as the case may be. Except for special circumstances in which a duty to update arises when prior disclosure becomes materially misleading in light of subsequent events, we do not intend to update any of these forward-looking statements to reflect events or circumstances after the date of this Annual Report on Form 10-K or to reflect the occurrence of unexpected events.

## **Table of Contents**

### **PART I**

#### **ITEM 1. BUSINESS**

In this Annual Report on Form 10-K, the terms our company, CDT, we, us and our refer to Cambridge Display Technology, Inc. and its subsidiaries, unless the context otherwise requires.

#### **Our Company**

We are a pioneer in the development of Polymer Organic Light Emitting Diodes, or P-OLEDs, and their use in next-generation flat panel displays and other applications. We believe we hold the most extensive and significant intellectual property, or IP, portfolio for P-OLED materials and devices, including the fundamental patents for the use of polymers in electroluminescent devices, essential for use in P-OLED displays and other applications. P-OLEDs are part of the family of Organic Light Emitting Diodes, or OLEDs, which are matrixes of organic diodes that emit light when an electric voltage is applied. OLEDs are thin, lightweight and power efficient devices used in flat panel displays, or FPDs, and other applications. Our P-OLEDs offer an enhanced visual experience and superior performance characteristics as compared to alternative FPD technologies, such as liquid crystal display, or LCD.

Our P-OLED technology has the potential to drive OLED adoption by significantly lowering the cost of producing OLED displays. P-OLED materials are solution processable, which enables them to be deposited on panels using processes such as high precision ink jet printing. We believe solution processing is inherently more efficient than the complex vacuum deposition processes used by competing OLED technologies and requires fewer processing steps than required in the production of LCDs. We believe that our technology leadership and IP position will enable us to share in the revenues from P-OLED displays as they continue to enter the mainstream consumer electronics market.

Our business strategy is to capitalize on our IP position to generate upfront license fees and recurring royalty payments from sales by third parties of devices using our IP. In addition, we will also receive royalties from suppliers of red, green, blue and other P-OLED materials as well as certain display driver chips. We are targeting leading display manufacturers as potential licensees of our P-OLED IP and, in support of this primary objective, we provide these display manufacturers and others with a range of paid-for services relating to technology development and transfer. We have already licensed our technology to leading international companies such as Dai Nippon Printing, Delta Optoelectronics, DuPont Displays, OSRAM Opto Semiconductors, Royal Philips Electronics, or Philips, and Seiko Epson for display manufacture. Several products which incorporate our licensed P-OLED technology in their small-area displays have been introduced into the commercial marketplace, including a mobile phone and an electric shaver by Philips, an MP3 player with a Delta Optoelectronics display and medical devices and a range of point-of-purchase and other promotional items with OSRAM Opto Semiconductors displays. To date, all of the commercially sold products which incorporate our P-OLED technology have been small monochrome displays. A number of our licensees and development partners have demonstrated larger, full-color displays using P-OLED technology and have announced intentions to commercialize these and other products in 2007.

#### **Industry Overview**

##### *The Flat Panel Display Market*

## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

The overall FPD industry has experienced strong growth in recent years. According to DisplaySearch, an independent market research firm tracking the FPD industry, the worldwide FPD market grew from \$24.1 billion in 2000 to \$43.7 billion in 2003. DisplaySearch expects this market to grow to an estimated \$96.6 billion in 2008, representing a compounded annual growth rate since 2000 of approximately 19%.

Revenue growth in the flat panel industry continues to be driven by a number of factors:

*Proliferation of Mobile Consumer Electronics Devices.* Consumers throughout the world are rapidly adopting mobile consumer electronics devices such as mobile phones, personal digital assistants, or PDAs, MP3 players, portable DVD players, mobile gaming devices and digital cameras and camcorders. Advances in component technology are driving down the cost of these products and expanding their functionality.

Early

## **Table of Contents**

mobile devices were equipped with simple, small monochrome displays with limited functionality. As the cost of color displays decreased and quality improved, consumers rapidly adopted mobile devices with color displays. This trend towards greater display functionality in mobile devices continues with the introduction of new phones with dual displays, embedded cameras and television tuner video functionality.

*Replacement of Older Technology by FPDs.* Although FPDs were initially adopted in the mobile consumer electronics market and in notebook computers, they are displacing cathode ray tube displays in larger product applications such as desktop computer monitors and televisions. This transition is being driven by consumer preferences for appliances that are thinner and more lightweight, particularly in larger display sizes. For example, according to DisplaySearch, in 2002, revenues from the sale of FPD computer monitors exceeded the revenues from the sale of cathode ray tube computer monitors for the first time and, in 2004, unit shipments of FPD computer monitors are expected to exceed unit shipments of cathode ray tube computer monitors for the first time.

In addition to consumer electronics devices, FPDs are increasingly being used in other applications such as car navigation systems, entertainment and advertising displays, instrumentation panels, household appliances and personal accessory products.

### ***LCDs: Today's Dominant FPD Technology***

LCDs, in total, accounted for approximately 83% of total FPD sales in 2003 according to DisplaySearch. Notebook computer applications and mobile phone displays have been enabled by LCDs and, together with desktop monitors, have been the primary growth drivers to date, with demand for LCD televisions accelerating rapidly in 2004.

Driven by this strong demand for LCDs, particularly for LCD televisions, LCD panel manufacturers are investing in fabrication facilities that enable significantly larger sheets of glass to be processed, thereby reducing unit costs and allowing availability of large-sized television panels. This industry trend favors large, established panel manufacturers who can afford the approximately \$1 billion required to construct, equip, test and run a Gen-5 facility which produces panel displays, or substrates, of approximately 39 inches by 43 inches, or the at least \$2 billion capital investment required for a more advanced Gen-6 or Gen-7 facility, which produces substrates of approximately 59 inches by 71 inches and above. AU Optronics, Chunghwa Picture Tubes, LG.Philips LCD and Samsung Electronics in a joint venture with Sony have each announced plans for Gen-6 or Gen-7 LCD fabrication facilities while Sharp has announced plans for a Gen-8 facility. However, the huge capital commitments required are prohibitive to most industry participants. We believe that this dynamic will result in continued consolidation within the LCD industry and present challenges for other companies attempting to enter or sustain LCD display businesses.

While LCD is currently the dominant technology in the FPD market, other display technologies are also gaining traction and experiencing significant growth. For example, while plasma displays have been criticized for relatively short lifetimes and high power consumption, the superior picture quality and attractive form factor have driven demand for this technology within the high-end, large-sized display market. Rear projection microdisplay-based technologies such as digital light processing and liquid crystal on silicon are also receiving increased attention, especially for screens greater than 60 .

### ***OLEDs: The Next-Generation FPD Technology***

OLED technology is emerging as one of the most promising entrants among the next generation of FPD technologies. According to DisplaySearch, sales from OLED displays are expected to grow significantly as they continue to penetrate the growing FPD market and are



## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

expected to increase from an estimated \$235.0 million in 2003 to an estimated \$5.3 billion by 2008. This represents a compounded annual growth rate of 86%, and approximately 6% of the total \$95.9 billion FPD market in 2008. DisplaySearch forecasts this growth will be driven by the adoption of OLED displays in small product applications, such as mobile phones, car audio and

## **Table of Contents**

video systems, digital cameras and camcorders, PDAs, portable DVD players, handheld televisions, games, notebook computers and other commercial and industrial applications. Mobile phone applications are forecast to be driven primarily by the need for higher quality displays to handle streaming video signals.

While DisplaySearch's current forecast anticipates OLED displays initially being adopted for small- to medium-sized product applications, larger display applications are increasingly believed to represent a significant potential market for OLED displays. OLED displays may have advantages over LCDs in televisions because of their sharper picture image, superior video response time, higher contrast ratios, wider viewing angle and potentially lower manufacturing cost. All of these attributes are particularly important in larger display applications. To illustrate the interest of display manufacturers in next-generation techniques to manufacture large display panels, recent demonstrations of full-color prototype displays using our P-OLED technology include a 13-inch display by Philips and, in May 2004, Seiko Epson, unveiled a prototype 40-inch full-color P-OLED display. Seiko Epson has announced that it plans to offer displays for televisions in 2007, and Casio Computer has announced plans for the production of large television screens based on P-OLED technology, also by 2007.

The OLED industry has evolved into two distinct IP groups, each with its own materials, device structures and processing methodologies:

Small molecule OLED materials, or SMOLED materials, are based on chemical compounds which, given their size, can be evaporated without chemical modification or breakdown. The production of SMOLED devices is typically characterized by a complex vacuum-based process also used by semiconductor manufacturers known as thin metal masking. In this process, layers of SMOLED materials, each contributing to the generation of a different color, are sequentially evaporated through a perforated mask to form a specific pattern of color-emitting pixels.

P-OLED materials, or large molecule polymer OLED materials, are based on longer or many-branched chemical structures that can be dissolved in common organic solvents to form a solution without losing their core properties. As such, P-OLED materials can be processed in a less complex, more cost-effective manner through conventional printing processes, including high precision ink jet printing, and without the need for vacuum equipment.

We believe OLED displays are an attractive alternative to LCDs as they offer a number of potential advantages to the consumer as well as the promise of cost reduction to the manufacturer.

*Superior Viewability.* The emissive nature of OLEDs enables higher brightness and contrast ratios, which lead to a sharper picture image and clearer character displays. OLED displays also have a better color spectrum and require no special engineering to give wide viewing angles. We believe the superior viewability and image quality of OLED displays is a key differentiator for consumers in applications ranging from mobile phone to large screen televisions. Evidence from early OLED product launches suggests that consumers value the improved viewability of OLED displays and are willing to pay a premium over the cost of current solutions.

*Faster Video Response for Displaying Moving Images.* OLED displays, which have very fast response times, are ideally suited for displaying distortion-free moving images. OLED displays have response times that are approximately a thousand times faster than those of LCDs. While the response times for LCDs have improved over the last 10 years, it is still possible to discern a ghosting effect, a phenomenon where retained images do not keep up with the content, particularly noticeable when watching fast-paced action in movies or sporting events. We believe the faster video response of OLED displays will enable them to further penetrate the mobile phone market as mobile phones add video features and television tuner capabilities.

## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

*Cost Advantages.* We believe the cost of producing OLED displays will eventually fall below that of LCD production as OLEDs have a simpler structure, require relatively fewer production processes, eliminate the two most costly components of an LCD, namely the backlight and color filter, and in the case of our P-OLED displays, can be manufactured through rapid, material-use efficient, solution processes such as high precision ink

## **Table of Contents**

jet printing. It is possible that substantial portions, including the most capital intensive portions, of LCD manufacturing facilities could also be used to manufacture OLED displays, thus improving the attractiveness of a conversion from LCD manufacturing to OLED manufacturing. We believe that if increasing applications and technological improvements drive adoption of OLED displays, we may see a virtuous cycle of cost reduction and increased volumes, ultimately resulting in the cost of OLED displays dropping below that of LCDs.

*Slimmer Form Factor.* Electronics consumers have shown a strong preference for thinner, lighter form factors, as evidenced by the displacement of cathode ray tube displays by LCDs. OLED displays are, in turn, significantly thinner and lighter than LCDs and plasma displays of the same size. We believe that the thinner and lighter displays enabled by OLEDs will increasingly displace LCDs for both mobile and non-mobile applications. Mobile phone sub-displays, the smaller display on the cover of most flip-phone models, are an example of an application where the slimmer form factor of OLED displays has already resulted in a rapid displacement of LCDs. Further, we believe that OLED technology will be increasingly used in the main display for mobile phones.

## **Our Solution**

We design, develop and market P-OLED technology that enables the manufacture of P-OLED displays which have enhanced features and capabilities for use in numerous consumer and industrial applications, including flat panel televisions, mobile phones, PDAs, digital cameras and camcorders (including electronic viewfinders), portable DVD players, electric shavers, MP3 players and other applications. The key elements of our solution include:

*Technology Leadership.* We are a recognized leader in OLED technology and believe we have the most comprehensive portfolio of OLED IP in the areas of P-OLED devices incorporating fluorescent materials, high efficiency phosphorescent dendrimer and other materials, and solution processing know-how. The fundamental inventions relating to P-OLED technology were made by a team of researchers at the Cavendish laboratories at the University of Cambridge in 1989, that included Dr. Jeremy Burroughes, our Chief Technical Officer, and Sir Richard Friend, a professor at the University of Cambridge and a member of our Technical Advisory Board. Through our IP portfolio, both owned by us and licensed from third-party patent owners, we believe that we can enable our licensees to manufacture P-OLED displays independent of fundamental IP governing other types of OLEDs.

We believe that our IP strength will require third-party manufacturers making or selling P-OLED displays or materials in countries where we maintain patent protection to acquire a license from us. The strength of our IP position is illustrated by the fact that we have attracted licensees such as Dow Chemical, DuPont Displays, OSRAM Opto Semiconductors, Philips, Seiko Epson, and Sumitomo Chemical.

In addition to our patent portfolio, we have developed considerable proprietary know-how by virtue of the pioneering achievements of our world class team. Of particular relevance is the implementation knowledge, or the know-how, of the manufacturing process for P-OLED devices, which has been enhanced by our Technology Development Center. Through this facility, we provide services and production process know-how to our licensees, potential licensees and development partners. This allows us to generate service revenues, accelerate overall adoption of our technology and assist our licensees in bringing products to market as quickly as possible.

*Commercially Viable Lifetimes and Color Spectrum.* In order to compete with LCDs, which have achieved the necessary technological specifications for most consumer product applications, product lifetimes have been a key focus for many emerging display technologies and a challenge to mass adoption of OLEDs. Through intensive research and development efforts, we have achieved the minimum lifetimes, efficiencies and color coordinates of the red, green and blue colors required by manufacturers for full-color mobile devices. Although lifetimes are already sufficient for P-OLED displays in many mobile applications, especially given rapid consumer replacement trends, longer lifetimes

## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

across a full-color spectrum need to be achieved to validate P-OLED as a technology that is suitable for existing display types requiring longer service lifetimes and brighter

## Table of Contents

screens, such as televisions. The lifetimes of red and green have increased from 40,000 hours and 25,000 hours in 2002, respectively, to over 210,000 hours and 260,000 hours today. The lifetime of blue, which is the most challenging OLED color, has increased from 11,000 hours in 2002 to over 80,000 hours today. Service lifetimes are extrapolated from laboratory testing of materials to simulate what lifetimes are likely to be achieved at given levels of brightness. Different manufacturers of display devices produce this simulation at different levels of initial brightness depending on their intended applications. The industry norm is to effect the simulation at high brightness levels and to extrapolate to predict the lifetime at 100 cd/m<sup>2</sup>. In addition, the lifetimes of yellow and orange, which are used in monochrome displays, are currently over 290,000 hours and 320,000 hours, respectively, also measured at 100 cd/m<sup>2</sup>. Given this rate of progress, particularly on lifetime of the color blue, we expect to satisfy the lifetime requirements of more demanding applications such as televisions.

*Manufacturing Cost Advantages.* LCDs have a complex structure requiring components such as backlights, color filters, spacers, diffusers and alignment layers. OLEDs by definition have a simpler structure than LCDs, as devices based on our P-OLED technology eliminate the need for these and other additional components. We believe that this simpler structure in comparison to LCDs will lead to significantly lower capital and material costs, shorter manufacturing cycles and higher manufacturing yields. We believe there are two principal advantages of our technology when compared to competing OLED technologies. First, devices based on our P-OLED technology also employ the simplest of the OLED structures. Devices using our P-OLED technology require fewer layers in the structure as a consequence of the fact that the larger molecules combine several key functions in a single layer whereas devices using SMOLED technology currently require a separate layer of material for each function. Second, P-OLED technology offers the potential for low cost manufacturing. P-OLED materials are solution processable, enabling them to be deposited on panels using conventional printing processes, such as high precision ink jet printing, that are materials efficient and may be operated under less rigorous conditions not involving vacuum deposition. In contrast, SMOLED production requires a number of complex vacuum deposition processes in which SMOLED materials are evaporated during a series of repeated steps through a set of precisely aligned masks, to form a specific pattern. This may result in lower yields and is less materials efficient. P-OLED advantages over SMOLED become more compelling when scaling to large substrate sizes, as larger masks are more difficult to handle. While some SMOLED technology developers have efforts underway to enable solution processing of small molecules, we believe that these efforts, if commercially successful, could require the use of technology covered under our IP and therefore would require a license from us.

*Scalable to Large Substrate Sizes.* To meet strong consumer demand for larger panel sizes for products such as flat panel televisions, for more efficient manufacture of smaller screens and to reduce unit costs, LCD manufacturers have rapidly transitioned to larger substrate sizes. As they have made this transition, these manufacturers have encountered significant technical hurdles in scaling some of the component technologies used in LCDs, such as backlights and color filters. For example, backlights that are used to illuminate LCD screens are of more complex construction to enable even illumination of larger LCD screens. In addition, yield issues have been reported with color filter manufacture for larger scale substrates. The simpler structure of devices based on our self-emissive P-OLEDs does not require the use of either backlights or color filters. While manufacturing equipment will continue to need to be developed in order to commercially produce larger panel sized P-OLED displays, we believe the advantages of P-OLED device manufacture will become more compelling as the FPD industry continues its transition towards larger substrate sizes and larger display panel sizes.

*Demonstrated Track Record of Commercial Adoption.* The displays on several products using our licensed P-OLED technology have been introduced into the commercial marketplace by leading international companies, including the displays on mobile phones and electric shavers produced by Philips, MP3 player displays produced by Delta Optoelectronics and medical device displays and a range of point-of-purchase and other promotional displays made by OSRAM Opto Semiconductors. Philips, Seiko-Epson, Dai Nippon Printing and others are in development of P-OLED area and full-color displays. Recent demonstrations of full-color prototype displays using our P-OLED technology include 40-inch and 12.5-inch displays by Seiko Epson, a 13-inch display by Philips and small screen displays by Casio Computer. Dai Nippon Printing has exhibited a 25-inch poster display which incorporates a number of P-OLED segments as part of the display.

## **Table of Contents**

*Reduced Barriers to New Entrants to the FPD Industry.* We believe our solution offers a compelling opportunity to new entrants to the FPD industry that are not incumbent display manufacturers. The FPD industry, and the LCD business in particular, has become increasingly concentrated as manufacturers have had to make progressively larger capital outlays to build fabrication facilities that can process larger panel sizes. We believe that FPD manufacturing plants that use P-OLED materials and manufacturing technology can be built at a significantly lower cost than equivalent LCD manufacturing plants and that the significant change in manufacturing process reduces the barrier to a new entrant. Our partner, OTB Technologies, a manufacturing systems integrator, currently offers a turn-key P-OLED-based FPD manufacturing line, incorporating ink jet printing, for smaller substrate sizes. Examples of recent entrants to the FPD industry using our P-OLED technology include Delta Electronics and OSRAM Opto Semiconductors.

## **Our Strategy**

Our objective is to establish P-OLEDs as a leading technology for the FPD industry through the use of our extensive IP portfolio, manufacturing process and engineering expertise and commercialization partnerships. We also intend to encourage expanded use of P-OLED technology in other addressable markets such as lighting. The principal elements of our strategy are to:

*Focus on Technology Licensing.* Our business model is focused on licensing our P-OLED and related technologies to FPD manufacturers on a non-exclusive basis and not on manufacturing or selling products that incorporate our technologies. We believe this approach best enables us to capitalize on our IP position, generating license fees and royalty payments from sales by third parties of materials or displays using our IP. Our business model allows us to concentrate on our core strengths of technology development and innovation, while at the same time providing significant operating leverage. We believe that this approach reduces the potential for competitive conflicts between us and our licensees.

*Drive Adoption of our P-OLED Technology.* Our strategy is to collaborate with a group of companies, including material suppliers, equipment manufacturers, display makers and component providers, with expertise in a range of technologies that are necessary for the success of our P-OLED technology. For example, to further materials development, we have licensed our materials IP to four suppliers, Covion, Dow Chemical, H.C. Starck (a subsidiary of Bayer) and Sumitomo Chemical, in exchange for a royalty on their sales of P-OLED materials to our display manufacturer licensees and we continue to work with our materials licensees to test and improve their products. In order to provide specialized ink jet printers for printing P-OLED, we invested in Litrex, a developer and supplier of ink jet printing equipment which can be used in the manufacture of P-OLED displays. This investment has allowed us to accelerate the development of commercial scale printers specifically designed for P-OLED printing. We also seek to obtain licenses, with sub-licensing rights, for other relevant IP in order to simplify the acquisition of IP rights required by our prospective licensees. In January 2002, we opened our Technology Development Center in Godmanchester, near Cambridge, England, at a cost of approximately \$25 million, to enable us to develop P-OLED display manufacturing processes in a commercial scale facility and to subsequently sell process and engineering packages to our licensees. In return for technology transfer and service fees, we provide a range of customized service packages which assist companies in achieving their plans to adopt and commercialize products using our P-OLED technology. Finally, we also promote the adoption of our P-OLED technology by participating in and cooperating with industry groups.

*Expand and Deepen Relationships with Leading Display Manufacturers.* We have established relationships with many of the major display manufacturers in the industry, including formal relationships with Philips, Samsung Electronics, Seiko Epson, Thomson and Toshiba Matsushita Displays and informal relationships with Casio Computer, LG.Philips and Sharp. Our formal relationships involve formal license agreements or technology development agreements. Our informal relationships are based on signed non-disclosure agreements and the regular exchange of technical information between representatives. All of our informal partners have active internal P-OLED research and development projects. We currently have nine licensees for display devices, four licensees for P-OLED materials, and one licensee for semiconductor driver technologies. In addition, we





## **Table of Contents**

have active technology development and evaluation agreements with nine companies. We seek to expand these relationships and develop additional relationships to increase our revenues and promote the adoption of our technology.

*Enhance and Protect our IP Portfolio.* We believe that a strong and comprehensive portfolio of P-OLED patented technology is critical to our success in the display industry. Consequently, we are expanding this portfolio through our internal development efforts, our collaborative relationships and other avenues, which may include opportunities to acquire businesses, technologies or other assets. This will not only enhance the strength of our IP position, but will enable us to continue to extend our patent coverage into other forms of display and other devices to provide us with an increasingly strong position in our commercial dealings within the overall patent landscape. We will continue to protect our innovations in all major markets, including the United States, Europe and Japan. Inventions that we consider to have the greatest potential are further protected by the filing of patent applications in a greater number of countries. We will seek, and where necessary, take appropriate action to enforce our patent protection for these innovations. In 2004 we filed 34 new patent applications, had 45 new patents issued and in all have 179 patent families issued or applied for.

*Increase the Value Proposition of our Technology.* Currently our primary focus is to develop additional P-OLED materials and device structures which extend lifetimes, increase power efficiencies and enhance color spectrums to allow P-OLED technology to be used in a broader array of FPD applications. We believe that improving color lifetimes, efficiencies and spectrum, in addition to refining and simplifying the processes utilized in manufacturing P-OLED displays, such as ink jet printing, are the key challenges that we and our partners must continue to address in order to reach the full range of display markets. While, traditionally, phosphorescent light emission was thought to be the only route to high efficiency OLED materials, recent findings at the University of Cambridge, Add-Vision, TDK Corporation, UCLA, Yamagata University and Philips have shown that higher efficiencies than were thought possible can be obtained from fluorescent P-OLED materials. We believe that these findings may allow fluorescent P-OLEDs to achieve significantly higher power efficiencies than previously expected and may provide the only route to very high efficiency blue OLEDs. In addition to our P-OLED technology, we are developing our proprietary high efficiency, solution processable, phosphorescent dendrimer materials. Dendrimers, which are large, spherical molecules with branched chains emanating from their cores, enable materials and device structures that allow OLEDs to emit phosphorescent light while also being capable of solution processing.

*Expand Addressable Markets by Leveraging Core Technologies.* We intend to focus our development efforts on the FPD market, which we believe represents the largest near to mid-term market opportunity for our core P-OLED and solution processing technologies. We also intend to explore the applicability of our core technologies to additional applications such as signage and poster-type displays that incorporate multimedia capabilities, sensors, solid state lighting and photovoltaic cells. For example, we have licensed our core P-OLED technology to OSRAM Opto Semiconductors and Philips, two of the largest lighting companies in the world, for lighting applications. In addition, General Electric, with whom we have collaborated through a formal joint development agreement that expired at the end of 2003, has announced encouraging results from the use of P-OLED technology to create white lighting.

## **Our Intellectual Property**

Since our founding, IP has been and continues to be our highest priority and the quality and range of our IP portfolio reflects this. From the initial filings with respect to our fundamental patents (i) for the use of conjugated polymers in electroluminescent devices and (ii) for the use of co-polymers to achieve the desired performance characteristics of such devices, we have now amassed a substantial base of IP assets including granted and pending patents, trade secrets and know-how. Currently we have 180 published or unpublished patent families, including thirteen joint filings with our development partners, with 68 patents issued in the United States, 28 patents issued in Europe (principally in the U.K., France, Germany and the Netherlands), 13 patents issued in Japan and twelve patents issued in China. In addition, we have applied for 65, 69, 70 and 34 patents that are currently pending with the applicable governmental authority in, respectively, the United States, Europe, Japan and China.



**Table of Contents**

Our patent portfolio now extends into the following areas:

electroluminescent devices

electroluminescent and charge transport materials

manufacturing processes

electrodes/cathodes

device architecture

electronics/drivers

optics

solution processing and ink jet printing

flexible display devices

photovoltaics, such as solar cells

In addition to patents owned directly by us, we have exclusive control of certain patents emanating from the Universities of Cambridge and Oxford. We have been granted sub-licensing rights with respect to the extensive portfolio of patents belonging to Seiko Epson to the extent they relate to the manufacture of P-OLED devices by ink jet printing. We also possess substantial know-how, including the implementation knowledge relating to the manufacture of OLED devices.

In 2002, as part of our IP expansion strategy, we acquired control of CDT Oxford Limited (formerly known as Opsys UK Limited), which owns or controls a number of patents protecting the use of dendrimers to make solution processable phosphorescent materials. This allows us to develop proprietary materials which we believe have the potential to form the basis of a future generation of high efficiency green and red materials for solution-processed OLED displays.

We have a comprehensive IP policy which has as its objectives, (i) the development of new IP both to ensure our continued control of P-OLED technology and to further our IP position in relation to OLEDs in general and (ii) the maintenance of our valuable trade secrets and know-how. We seek to achieve these objectives through the education and training of our scientific staff and the adoption of appropriate systems and procedures for the creation, identification and protection of IP.

## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

Our staff is encouraged to create inventions that arise not only from the technical problems which they are solving on a daily basis, but which are also likely to become an effective block (unless licensed) to the technology road maps of both P-OLED and AMOLED devices and material manufacturers. All inventions are submitted to our Patent Review Committee which meets regularly to review such inventions and to review technical and market trends. In this way, we strive to increase the range and breadth of our IP portfolio.

Our general practice is to file patent applications for our technology in the United States, Europe and Japan, while inventions which are considered to have the greatest potential are further protected by filing of patent applications in additional countries, including Canada, China, Korea and Taiwan. Patent applications in China historically have been difficult to pursue, and patents obtained from these applications are perceived to be difficult to enforce. This together with the high cost of these applications were the principal reasons why we did not seek patent protection in China for any of our patents filed in other countries before the mid-1990s, including our fundamental patents. The inventions covered by these patents are not therefore protected in China. Since China became a party to the Patent Cooperation Treaty in 1994 and as its economy grew, beginning in the late 1990s, we have been filing some of our important patents in China. The first patent application where we have protection in China has a priority date in 1996. We file and prosecute our patent applications in pursuit of the most extensive protection, including, where appropriate, the applications of the relevant technology to the broader display industry, small molecule OLEDs and other developing OLED technology.

## **Table of Contents**

Patents issued in the United States prior to June 8, 1995 generally expire 17 years after the date of issuance. Patents resulting from applications that were pending on that date generally expire 17 years after the date of issuance or 20 years from the date of filing, whichever is later, while patents resulting from applications filed after that date generally expire 20 years from the date of filing. Although our fundamental patents expire in 2010 and 2011, we hold a wide array of additional important patents whose expiration dates range from 2017 to 2024. Our comprehensive approach has led to an existing patent portfolio covering a broad spectrum of OLED technology, and we believe that this extensive portfolio, together with our ability to continue to generate important patentable inventions, will extend our ability to generate licensing revenues for the foreseeable future.

Our strong internal research and development program is supplemented through the joint development of new IP with research partners, including the University of Cambridge, the University of Oxford, the University of St. Andrews, Covion, Sumitomo Chemical and Toppan. In many cases, we either solely own, or jointly own with the right to sublicense, some or all of the IP created under these programs. Our IP strategy also attempts to consolidate IP in the OLED field through cross-licensing with our licensees as a condition of our grant of a license to that party.

## **Our Technology**

We believe our P-OLED technology has the potential to drive OLED adoption by significantly lowering the cost of producing OLED displays, being able to scale to larger substrate sizes and offering potentially higher system power efficiencies.

### ***Simple Device Structure***

We believe that displays using our P-OLED technology have the potential for significant cost advantages over LCDs, as P-OLED displays have a simpler device structure and require fewer production processes and components.

There are also significant differences in device structure between P-OLED displays and SMOLED displays. These differences can lead to differences in costs, light-emission characteristics and service lives. For example, in a P-OLED device, a single material has all the characteristics required to perform a number of functions required by the device. In contrast, in a SMOLED device, each small molecule material performs one function so that more layers are required to construct the device. In addition, P-OLED materials use a lower drive voltage of three volts compared to five volts commonly required in SMOLED materials. We believe the lower drive voltage of our technology results in significant benefits to display manufacturers, including increased ease of integration and improved system power efficiencies.

**Table of Contents**

The following table summarizes the key differences in device structure and service lifetime among P-OLEDs, SMOLEDs and LCDs:

---

\* Comparison data in the service lifetimes row is based on CDT data and extrapolated calculations derived from publicly available information given that LCD and SMOLED suppliers track service lifetimes through methodologies that vary depending on the intended product application.

***Solution Processing Technology***

P-OLED materials can form stable solutions in organic solvents, making them suitable for production by solution processing methods that deposit materials onto a substrate using low-cost techniques such as spin-coating, in the case of monochrome or area color displays, as well as screen printing and ink jet printing. We believe solution processing offers significant advantages over vacuum deposition and has the potential to drive adoption of P-OLED materials by enabling the production of devices that have the same visual attractiveness as other types of OLED displays at significantly lower costs. In addition, we believe that solution processing technologies such as ink jet printing are inherently more scalable, making them more suitable for manufacturing

## Table of Contents

larger area displays and making it potentially feasible to convert a Gen-5 LCD plant, which produces display panels, or substrates, of approximately 39 inches by 43 inches, or a Gen-6 or Gen-7 LCD plant, which produces substrates of approximately 59 inches by 71 inches and above, to a P-OLED display production.

We believe the advantages of our solution processing technology will become more compelling as the OLED industry transitions to larger substrate sizes because the current vacuum deposition technologies used in SMOLED displays will have difficulty in scaling to these larger sizes and alternative SMOLED deposition processes are unproven in terms of cost and reliability. As the substrate size increases, the increased size of the perforated mask used in current vacuum deposition techniques results in a greater likelihood of mask alignment problems during deposition of successive layers thereby reducing the manufacturing yield.

Although high precision ink jet printing is the current state-of-the-art patterning method for P-OLED materials, there are other printing technologies which have potential for low-cost manufacture such as screen printing, offset lithography, gravure and other flexographic methods common to the graphics industry in which they, and ink jet printing, are well established.

### *Service Lifetimes*

A key challenge facing the OLED industry is the development of OLED devices with service lifetimes adequate for commercial applications. Service lifetimes are extrapolated from laboratory testing of materials to simulate what lifetimes are likely to be achieved at given levels of brightness. Different manufacturers of display devices produce this simulation at different levels of initial brightness depending on their intended applications. The industry norm is to effect the simulation at high brightness levels and to extrapolate to predict the lifetime at 100 cd/m<sup>2</sup>. Our P-OLED technology has demonstrated lifetimes greater than 210,000 hours for red devices, over 260,000 hours for green devices and over 80,000 hours for blue devices in each case measured as the time to half-brightness from an initial brightness in order to extrapolate to give these predicted lifetimes at 100 cd/m<sup>2</sup>. We believe the current lifetimes we and our materials licensees have achieved satisfy requirements for small- to medium-sized consumer product applications such as mobile phones, PDAs, digital cameras and camcorders (including electronic viewfinders), portable DVD players, electric shavers, MP3 players, and in-car entertainment and navigation displays, but are not yet sufficient for televisions, notebook computers or desktop computer monitors, which operate at higher brightness levels and have longer service lives. As shown in the table below, we, along with our partners, have made significant progress in extending the lifetimes of materials, including the lifetime for blue, a color that has been particularly challenging for the OLED industry. As we continue to make advances in lifetimes, the breadth of the market capable of being served by products using our P-OLED technology will expand to cover additional segments of the display market. The following table shows the advances made in P-OLED materials lifetimes:

**P-OLED Materials Lifetimes\***

	<u>End 2000</u>	<u>End 2002</u>	<u>October 2004</u>
<b>Red</b>	>40,000 hours	>40,000 hours	>210,000 hours
<b>Green</b>	>10,000 hours	>25,000 hours	>260,000 hours
<b>Blue</b>	>1,900 hours	>11,000 hours	>80,000 hours
<b>Yellow</b>	>5,000 hours	>30,000 hours	>290,000 hours
<b>Orange</b>	>10,000 hours	>10,000 hours	>320,000 hours

## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

\* Lifetime measured as the time to half-brightness from an initial brightness and then extrapolated to give predicted levels at 100 cd/m<sup>2</sup>. Lifetime testing is performed using direct current driving schemes.



## **Table of Contents**

In the current display market, LCDs have developed service lifetimes that are sufficient for most consumer product applications. SMOLEDs have service lifetimes that are sufficient for small- to medium-sized consumer product applications and, currently, a number of small-area, color displays are in commercial production. P-OLEDs have service lifetimes that are sufficient for most small- to medium-sized consumer product applications. Based on public announcements by certain of our licensees, we expect that small, area color P-OLED displays will be available for commercial production by the end of 2005.

We are also currently developing a transparent cathode structure to enable a top-emission type device. In such a device, the light is emitted through the cathode side of the device rather than having to pass between the gaps in the thin film transistors driving the display. This is expected to increase system lifetimes by two to three times due to lowering of the required brightness of the P-OLED material itself for a given device brightness.

### ***Our Power Efficient Technologies***

We are striving to improve power efficiency through three routes. First, in addition to our P-OLED fluorescent technology, we own or hold exclusive licenses covering a number of patents and patent applications directed to high efficiency, solution processable, phosphorescent dendrimer materials. Dendrimers, which are large, spherical molecules with branched chains emanating from their cores, enable materials and device structures that allow OLEDs to emit light through a process known as phosphorescence. Theoretically, phosphorescent devices are capable of device efficiencies up to four times higher than those exhibited by fluorescent OLEDs. This would substantially reduce the power requirements of an OLED and is potentially useful for hand-held devices, such as mobile phones, where battery power is often a limiting factor.

Second, while, traditionally, phosphorescent light emission was thought to be the only route to high efficiency OLED materials, recent findings at the University of Cambridge, Add-Vision, TDK Corporation, UCLA, Yamagata University and Philips have shown that higher efficiencies than were thought possible can be obtained from fluorescent P-OLED materials. These findings indicate that a greater proportion of singlet excitons are being generated than previously thought to be theoretically possible. We believe that these findings may allow fluorescent P-OLEDs to achieve significantly higher power efficiencies than previously expected and may provide the only route to very high efficiency blue OLEDs, as phosphorescent blue emission is difficult to obtain and sustain.

Finally, we are continuing to reduce the voltage required by devices using our P-OLED technology leading to more power efficient devices.

### ***Favorable Trends in Driver Technologies***

LCD and OLED display devices are classified as either passive matrix or active matrix devices. In passive matrix devices, pixels are connected via a simple X-Y grid and rows or columns are addressed consecutively. In active matrix devices, pixels are connected to an array of thin film transistors and can be addressed simultaneously. Our licensees are shipping P-OLED passive matrix displays for use in mobile phones, electric shavers, MP3 players and other consumer and industrial applications. The passive matrix segment offers many niche opportunities where performance demands are well within the current state of the technology and the market size is sufficiently large so that licensees can ship large volumes to sustain and grow their businesses using P-OLED displays.

While we believe that the passive matrix segment is very important for the overall success of our P-OLED technology, we are directing most of the effort in the development of our P-OLED technology to leverage the growth in the active matrix segment, which in the longer term has much

## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

larger revenue potential. We believe that our P-OLED technology is particularly suited to the active matrix market since extended display lifetime is easier to achieve in an active matrix device, in which each pixel is driven at its most efficient operating point.

Active matrix technology was developed by the LCD industry to overcome the limitations of passive matrix screens and enable screens with higher resolutions to be made for laptop computers, desktop computer monitors

## **Table of Contents**

and more recently televisions. There are two primary types of thin film transistor substrates in use today: amorphous silicon substrates, which are the most commonly used, and low-temperature poly-silicon substrates, which have benefits due to their better performance.

Amorphous silicon thin film transistors are simpler to fabricate and are a more mature technology. They are sufficient to control each pixel in the display, but are not fast enough to translate the input signal into row and column signals to enable the display to operate correctly. As a result, the row and column drivers are always made from silicon chips which are attached to the display at a later stage in the manufacturing process. This limits the displays to larger sizes or lower resolutions. Although the poly silicon thin film transistor fabrication process is more complex, the superior performance allows them to be used not only as pixel drivers but also as integrated row and column drivers, allowing much smaller high resolution LCD displays to be made, that may be used, for example, as displays in digital cameras.

As amorphous silicon thin film transistors were believed to suffer from unacceptable instability when driving OLEDs, it had been assumed until recently that active matrix OLEDs would have to be driven using low-temperature poly-silicon thin film transistors. Recently though, means to compensate for the amorphous silicon thin film transistor instability have been developed. In particular, Casio Computer has developed P-OLED displays using amorphous silicon thin film transistor technology with compensation schemes that allow this thin film transistor technology to drive P-OLEDs successfully. Although there is still more development to be done, we believe this work significantly increases the number of possible manufacturing facilities that could be converted from LCD to P-OLED and, since low-temperature poly-silicon production has, so far, been limited to Gen-4 size and smaller, the ability to scale P-OLED manufacturing to Gen-5 and larger.

Although amorphous silicon is the dominant backplane technology, there has been increased investment in low-temperature poly-silicon capacity because of the market demand for small, very high resolution displays. According to DisplaySearch, at least 18 companies operate or plan to operate low-temperature poly-silicon production. The key benefit of low-temperature poly-silicon for P-OLED technology is the ability to drive a higher current for a given voltage and, therefore, allow smaller thin film transistors to be used so that a greater proportion of the area of the display is available for the emergence of light generated by the P-OLED or to allow higher resolution displays to be made. Demonstrations of full-color prototype displays using our P-OLED technology on a low-temperature poly-silicon backplane include displays made by Seiko Epson, Toshiba and Philips.

We believe that the growing availability of low-temperature poly-silicon and the growing acceptance that amorphous silicon thin film transistors can drive P-OLED devices, along with additional P-OLED advantages over LCDs, such as sharper picture image and graphics, higher contrast ratios, superior video response time, wider viewing angle, slimmer form factor and potentially lower manufacturing cost, will allow P-OLEDs to eventually penetrate all LCD product markets.

### ***P-OLED Materials Technology***

Our materials licensees, Covion, Dow Chemical, H.C. Starck (a subsidiary of Bayer) and Sumitomo Chemical, currently manufacture and sell P-OLED materials to display manufacturers. Through a research and development program with Covion, collaborative relationships with Dow Chemical and Sumitomo Chemical, and our own work, we continue to improve red, green and blue materials and encourage their adoption in the industry to form the basis of the next generation of high efficiency materials for OLED displays. We also share our research to improve lifetimes, color spectrum and power efficiencies of P-OLED materials made by our materials licensees with selected display manufacturers.

### **Research and Development**

## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

We conduct research to further develop and enhance our proprietary core P-OLED and solution processable phosphorescent technologies. Our research and development expenses were \$19.7 million in 2002, \$16.8 million in 2003 and \$14.2 million in 2004. Our research and development team of 88 professionals has competencies in materials science, device physics, process development, and ink jet printing.

## **Table of Contents**

As part of our development efforts, in January 2002, we opened our Technology Development Center in Godmanchester, near Cambridge, England constructed at a cost of approximately \$25 million, to enable us to develop P-OLED display manufacturing processes in a commercial scale facility and to subsequently sell process and engineering packages to our licensees. In return for technology transfer and service fees, we provide a range of customized service packages which assist companies in achieving their plans to adopt and commercialize products using our P-OLED technology. At this facility we have the capability to fabricate fully functional display modules on substrate sizes from 1 x1 to 14 x14 for evaluation, testing and demonstration. This enables us to rapidly roll-out and deploy advances made on a research scale into a commercial scale facility.

## **Competition**

The display industry in which we operate is highly competitive. We compete against existing FPD technologies, dominated by LCDs, as well as emerging FPD technologies, including other OLED technologies. Due to the complex and rapidly evolving nature of the display industry, many of our competitors are, at times, working with us as licensees, development partners or services customers.

Numerous companies have developed or are developing LCD and other technologies such as plasma, rear-projection microdisplay, inorganic electroluminescence and field emissive displays that compete or will compete with our P-OLED display technologies. In addition, many large LCD manufacturers who have made significant investments in LCD technology and infrastructure may not focus on P-OLED technologies for their next-generation FPD initiatives regardless of the advantages inherent in the production and appearance of such displays. Many of the current and potential LCD panel manufacturers, who use a competing technology but are also current or potential licensees of our P-OLED technology, have significantly greater name recognition and more extensive financial, marketing and research resources than we do.

We also compete with a number of companies developing alternative OLED technologies. Given the level of patent protection we hold for P-OLED technology, our major OLED licensing competitors are focused on commercializing SMOLED technology. As a patented technology, SMOLEDs have a longer history than P-OLEDs and, as such, have a longer history of materials development and working relationships with potential partners. Companies in this market include Eastman Kodak, which has licensed its fluorescent SMOLED technology and other patents for passive matrix OLED display applications, and Universal Display Corporation, whose phosphorescent SMOLED materials technology is used for certain passive matrix OLED applications.

Similar to P-OLEDs, over 95% of shipments of commercial products utilizing SMOLED materials or licenses from these companies have been in passive matrix applications such as monochrome product displays, car audio and industrial displays and, more recently, cellphone sub-displays and digital still camera displays. SMOLED companies have also demonstrated larger displays ranging in size from approximately 10 to 21 inches. Kodak has set up a joint venture with Sanyo in order to establish volume production capacity for active matrix SMOLEDs which could help attract potential display manufacturers toward SMOLED technology. Kodak has announced that it is actively licensing SMOLED technology for active matrix displays but to date no grants of such licenses have been announced other than to the joint venture with Sanyo.

We believe that the principal competitive factors in the FPD market, which encompasses the market for OLED display technology, include manufacturing cost, image quality, power efficiency, product lifetime, weight and dimension. While we believe that products incorporating our P-OLED technology compare favorably on these factors, there can be no assurance that our technology will capture a substantial portion of the OLED display market or that our licensees' products using our P-OLED technology will capture a substantial portion of the FPD market.

## **Environmental Matters**

Our business and our research and development activities involve the controlled use of small amounts of hazardous substances as well as other potentially harmful materials, waste and chemicals, which could cause

**Table of Contents**

interruption of our research and development efforts or injury to our employees, resulting in liabilities under local or foreign laws or regulations governing the use, storage and disposal of these materials. To date, we have not had any issues relating to our use of hazardous materials.

We outsource the disposal of hazardous materials to professional contractors, who accept responsibility for the safe disposal of such materials, and to whom we paid less than \$50,000 per year in each of the last three years. We do not foresee any future material capital expenditure requirements for the monitoring of hazardous substances and pollution at our current facilities or any infrequent or non-recurring clean-up expenses.

**Employees**

As of December 31, 2004, we had 120 full-time employees and five part-time employees, none of whom are unionized. We believe that relations with our employees are good.

**Available Information**

We are subject to the informational requirements of the Securities Exchange Act of 1934, or the Exchange Act. We therefore file periodic reports, proxy statements and other information with the SEC. Such reports may be obtained by visiting the Public Reference Room of the SEC at 450 Fifth Street, NW, Washington, D.C. 20549, or by calling the SEC at 1-800-SEC-0330. In addition, the SEC maintains an internet site (<http://www.sec.gov>) that contains reports, proxy and information statements and other information regarding issuers that file electronically.

Our internet address is [www.cdtltd.co.uk](http://www.cdtltd.co.uk). We make available, free of charge, through our internet website links to our Annual Report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports, if any, filed or furnished pursuant to Section 13 (a) or 15 (d) of the Exchange Act, as soon as reasonably practicable after filing such material electronically or otherwise furnishing it to the SEC. Information contained on our website is not incorporated by reference unless specifically referenced herein.

**ITEM 2. PROPERTIES**

We lease the following facilities:

<u>Location</u>	<u>Approximate Square Feet</u>	<u>Use</u>
Bldg 2020 Cambourne Business Park, Cambridge, England	7,425	Offices for executive and support functions
Greenwich House Annex,	9,056	

## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

Madingley Rise, Madingley Road, Cambridge, England		Laboratories and office space for the chemistry and material science teams
Units 8, 11 and 12, Cardinal Business Park, Godmanchester, England	35,302	Technology Development Center (including offices, cleanrooms, laboratories, manufacturing facilities and other technical space)
No. 1, Industry East 2nd Road, SBIP, Hsin-Chu, Taiwan	300	Office space

We believe that our facilities are adequate for our current needs and that suitable additional or substitute space will be available as needed to accommodate foreseeable expansion of our operations.



## **Table of Contents**

### **ITEM 3. LEGAL PROCEEDINGS**

When we acquired Opsys Limited in December 2004, there was an arbitration action being conducted in California to settle a claim by a former employee in the amount of \$320,000. In the event that we lose the arbitration or settle this claim, shares currently held in escrow and owned by the former shareholders of Opsys will be forfeited to the value of the award or settlement.

In January 2005, Sunnyside Development Company filed a complaint against Opsys Limited and a company named by Sunnyside Development as CDT Limited, which is presumably intended to refer to one of our subsidiaries, Cambridge Display Technology Limited, in California Supreme Court alleging breach of contract and fraud arising out of an alleged property lease agreement between Opsys Limited and Sunnyside Development. Cambridge Display Technology Limited was not party to the lease. Sunnyside Development seeks compensatory damages that it claims exceed \$10 million and punitive damages in the amount of \$25 million. In October 2002, Opsys Limited and Sunnyside Development executed an Assignment of Lease and Consent of Lessor, which included a release of Opsys Limited by Sunnyside Development. In February 2005, the action was removed to the United States District Court for the Northern District of California. We believe that the claim will fail and have filed a motion to dismiss the case.

### **ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS**

The following matters were approved by written consent of a majority of the stockholders during the fourth quarter of the fiscal year covered by this Annual Report on Form 10-K. Pursuant to the Delaware General Corporate Law and our by-laws which applied prior to our initial public offering, these matters were approved by a majority of our stockholders and written notice was then sent to all other stockholders.

(a) a written consent of stockholders to action without a meeting was executed on behalf of two stockholders, Kelso Investment Associates VI, L. P. and Hillman CDT LLC on December 3, 2004;

(b) James Sandry was elected director of the Company. After his election, the directors were David Fyfe, Philip Berney, Frank Bynum, Gerald Hillman and James Sandry; and

(c) Matters approved were (i) appointment of James Sandry as director, (ii) amendment to our amended and restated certificate of incorporation to increase the authorized shares of Common Stock to 50,000,000, (iii) approval of our restated certificate of incorporation and restated by-laws to take effect immediately prior to our initial public offering, (iv) adoption of our special bonus plan, (v) adoption of our 2004 stock incentive plan and (vi) approval of our initial public offering. Written consent for the appointment of James Sandry as a director was received from stockholders representing 10,237,269 voting shares or 55% of the total voting shares outstanding. Written consent for the other matters listed above was received from stockholders representing 10,237,269 voting shares or 55% of the total voting shares outstanding.

**Table of Contents****PART II****ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES**

Our common stock has been traded on the Nasdaq National Market under the symbol **OLED** since December 15, 2004. The following table sets forth the high and low sales information for our common stock since December 15, 2004, the date of our initial public offering, through March 23, 2005, as reported by the Nasdaq National Market.

	<b>High</b>	<b>Low</b>
	<b>Close</b>	<b>Close</b>
<b>2004</b>		
Quarter ended December 31, 2004	\$ 11.65	\$ 10.60
<b>2005</b>		
January 1, 2005 to March 23, 2005	\$ 11.20	\$ 6.14

Based on a review of our most recent proxy tabulation and security position listing reports, there were approximately 1,000 holders of record of our common stock as of March 16, 2005.

We have not paid, and do not expect for the foreseeable future to pay dividends on our common stock. Instead, we expect that all of our earnings in the foreseeable future will be used for the operation and growth of our business. Any future determination to pay dividends on our common stock is subject to the discretion of our board of directors and will depend upon various factors, including our results of operations, financial condition, liquidity requirements, restrictions imposed by applicable law and our contracts, and other factors deemed relevant by our board of directors.

*Use of Proceeds from Registered Securities*

Our Registration Statement on Form S-1 (File No. 333-117824) related to our initial public offering was declared effective by the SEC on December 15, 2004. A total of 2,500,000 shares of our Common Stock was registered with the SEC with an aggregate offering price of \$30 million. All of these shares were registered on our behalf. The offering commenced on December 15, 2004 and all shares of common stock offered were sold for the aggregate offering price through a syndicate of underwriters managed by SG Cowen & Co., LLC, CIBC World Markets Corp. and Adams Harkness, Inc.

We paid to the underwriters underwriting discounts and commissions totaling \$2.1 million in connection with the offering. In addition, we incurred additional expenses of approximately \$2.9 million in connection with the offering, which when added to the underwriting discounts and commissions paid by us amounts to total expenses of \$5.0 million. Thus the net offering proceeds to us (after deducting underwriting discounts and commissions and offering expenses) were approximately \$25.0 million. No offering expenses were paid directly or indirectly to any of our directors or officers (or their associates), persons owning 10% or more of any class of our equity securities or to any other affiliates.

From the time of receipt through December 31, 2004, none of the net proceeds were used.

**ITEM 6. SELECTED FINANCIAL DATA**

The following selected consolidated financial data should be read together with Management's Discussion and Analysis of Financial Condition and Results of Operations, and our consolidated financial statements and related notes included elsewhere in this form

The consolidated statements of operations data for the years ended December 31, 2002, 2003 and 2004 and the consolidated balance sheet data as of December 31, 2003 and 2004 are derived from audited financial

**Table of Contents**

statements included elsewhere in this form. The consolidated statements of operations data for the year ended December 31, 2000 and 2001 and the consolidated balance sheet data as of December 31, 2000, 2001 and 2002 are derived from audited consolidated financial statements not included in this form.

Our selected consolidated financial and other data includes all of our operating subsidiaries for the entire period shown with the exception of the following subsidiaries which have been acquired or disposed of during the period. In November 2001, Litrex was acquired and its results are fully consolidated for the period from this date until August 2003 when 50% of the equity was sold. From August 2003 to date, 50% of the losses in Litrex have been reported by us using the equity method. In October 2002, control of CDT Oxford was acquired and its loss has been accounted for from October 2002 until December 2003 under the equity method. From January 2004, CDT Oxford has been fully consolidated into our results. As a result of the consolidation of CDT Oxford in the first quarter of 2004, we wrote off \$12.2 million of in-process R&D, relating to the valuation of CDT Oxford in October 2002, which has been accounted for as a cumulative effect of accounting change as further described in note 3 of our financial statements. In addition, as discussed in more detail under Management's Discussion and Analysis Overview our license fee revenues often consist of large one-time payments. As a result, our revenues experience significant fluctuations.

**Table of Contents**

	Years Ended December 31,				
	2000	2001	2002	2003	2004
<i>(In thousands, except per share data)</i>					
<b>Consolidated Statement of Operations Data:</b>					
Operating revenues					
License fees and royalties	\$ 98	\$ 20,869	\$ 2,474	\$ 4,314	\$ 6,791
Other license related					900
Technology services and development	531	1,522	727	3,758	4,982
Equipment and supplies					613
Litrex revenue			3,852	2,608	
<b>Total operating revenues</b>	<b>629</b>	<b>22,391</b>	<b>7,053</b>	<b>10,680</b>	<b>13,286</b>
Cost of sales			1,792	1,527	1,994
<b>Gross profit</b>	<b>629</b>	<b>22,391</b>	<b>5,261</b>	<b>9,153</b>	<b>11,292</b>
Operating expenses					
Research and development expenses	8,681	8,405	19,676	16,841	14,181
Selling, general and administrative expenses	7,240	11,893	16,903	12,769	18,751
Amortization of intangibles	8,305	8,555	3,660	1,625	1,580
<b>Total operating expenses</b>	<b>24,226</b>	<b>28,853</b>	<b>40,239</b>	<b>31,235</b>	<b>34,512</b>
Loss from operations	(23,597)	(6,462)	(34,978)	(22,082)	(23,220)
Other income (expense)					
Equity in loss of CDT Oxford			(651)	(2,355)	
Equity in loss of Arborescent					(85)
Equity in loss of Litrex				(1,284)	(2,461)
Currency translation adjustments	23	601	44	1,603	1,045
Other income					210
Interest income	541	668	282	415	347
Interest expense	(364)	(7)	(10)	(6)	(36)
<b>Total other income (expense)</b>	<b>200</b>	<b>1,262</b>	<b>(335)</b>	<b>(1,627)</b>	<b>(980)</b>
Loss before (benefit) provision for income taxes and cumulative effect of accounting change					
(Benefit) provision for income taxes	55	50	(3,595)	(932)	(1,615)
Cumulative effect of accounting change					(12,200)
<b>Net loss</b>	<b>(23,452)</b>	<b>(5,250)</b>	<b>(31,718)</b>	<b>(22,777)</b>	<b>(34,785)</b>
Accretion of preferred stock			(301)	(6,771)	(38,766)
<b>Net loss attributable to common shareholders</b>	<b>\$ (23,452)</b>	<b>\$ (5,250)</b>	<b>\$ (32,019)</b>	<b>\$ (29,548)</b>	<b>\$ (73,551)</b>
Net loss per share attributable to common shareholders before cumulative effect of accounting change, basic and diluted					
Net loss per share attributable to common shareholders, basic and diluted	\$ (3.23)	\$ (0.62)	\$ (3.35)	\$ (3.04)	\$ (6.17)
Weighted average number of shares					
Basic and diluted	7,264	8,469	9,565	9,705	9,944

As of December 31,

Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>
<i>(In thousands, except per share data)</i>					
<b>Consolidated Balance Sheet Data:</b>					
Cash and cash equivalents and marketable securities	\$ 13,467	\$ 4,138	\$ 11,972	\$ 10,400	\$ 28,043
Working capital	8,810	(971)	12,977	14,132	24,846
Total assets	89,644	111,684	129,122	113,870	129,153
Redeemable convertible preferred stock			25,301	38,487	
Accumulated deficit	(59,362)	(64,612)	(96,330)	(119,107)	(153,892)
Total common shareholders equity	83,374	99,860	94,320	62,768	106,439

## **Table of Contents**

### **ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

*The following discussion of our financial condition and results of operations should be read together with the consolidated financial statements and related notes that are included elsewhere in this Annual Report on Form 10-K. This discussion may contain forward looking statements based upon current expectations that involve risks and uncertainties. Our actual results may differ materially from those expected in these forward-looking statements as a result of various factors, including those set forth under "Factors That May affect Our Operating Results" or elsewhere in this Annual Report on Form 10-K.*

#### **Overview**

We are a pioneer in the development of Polymer Organic Light Emitting Diodes, or P-OLEDs, and their use in next-generation flat panel displays and other applications. The fundamental discoveries relating to our P-OLED materials were made by a team of researchers at the Cavendish laboratories at the University of Cambridge in 1989, that included Dr. Jeremy Burroughes, our Chief Technical Officer, and Professor Sir Richard Friend, a member of our Technical Advisory Board and our Chief Scientist. Since our inception in 1992, we have focused on continuing research and development related to the production, manufacturing and commercialization of P-OLED technology in the flat panel display and other industries. Our revenues are primarily generated from the licensing of rights to use our intellectual property, or IP, portfolio, from ongoing product royalties and from fees generated from transfer of technology and joint technology development agreements.

We sold our first P-OLED license in 1996 to Royal Philips Electronics and currently have nine device licensees (eight as at December 31, 2004), four materials licensees and two component licensees and are working with a number of additional display manufacturers through joint technology development programs and informal relationships. We recognized our first royalty revenues in 2002 when commercial consumer electronics products began incorporating our P-OLED technology. Currently, our P-OLED technology is being used in mobile phones, electric shavers, MP3 players, medical equipment and other applications.

While we have made significant progress over the past few years in advancing our P-OLED technology into a number of display licenses, we have incurred significant losses and will continue to do so unless our P-OLED technology becomes more widely adopted and commercialized by flat panel display manufacturers. As of December 31, 2004, we had an accumulated deficit of \$153.9 million in large part due to the research and development expenditures we have incurred. Our total research and development expenditures since 1999 exceed \$70.0 million.

Our business objective is to license our technology to leading display manufacturers and to generate royalties based on the sales of their products. As a pre-cursor to our licensing and royalty business we sell technology services, development services and ink jet printing equipment to companies working on P-OLED technology. We market our P-OLED IP and technology by building relationships with established and new entrant flat panel display manufacturers. This may involve developing relationships at a senior level over a period of years. Some manufacturers purchase a license from us at an early stage in their P-OLED development program. Other manufacturers begin their efforts to develop products using our P-OLED technology by working with us through a series of informal meetings, then by entering, either publicly or confidentially, into a formal technology development or technology transfer program which may culminate in the purchase of a license from us.

In order to accommodate our many current and potential Asian licensees and partners, we maintain a representative office in Taiwan. Our senior executives also travel frequently from our corporate offices to Asia and other destinations in order to develop our relationships with both existing and potential new licensees.

## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

We were founded in 1992 as a company organized under the laws of England and Wales by two of the inventors of our fundamental P-OLED technology, with the support of the University of Cambridge. In July 1999, we were acquired by Cambridge Display Technology, Inc. (formerly known as CDT Acquisition Corp.), a



## Table of Contents

Delaware corporation, owned by affiliates of two private investment firms, Kelso & Company, or Kelso, and Hillman Capital Corporation, or Hillman Capital. In December 2004 we completed an initial public offering of our stock on the Nasdaq National Market.

We believe that the key factors that will contribute to the successful execution of our strategy are:

the further development of P-OLED materials and device structures in order to increase the commercial lifetimes of P-OLED products

the further development of ink jet printing equipment and process, and other deposition processes, so that mass production of full color P-OLED displays can be demonstrated

the further development of other technologies required for P-OLED displays, particular active matrix thin film transistor display drivers; and

the adoption of P-OLED technology by increasing numbers of existing and potential future display manufacturers

Management monitors performance in achieving these goals by reference to internal and external technology developments. Progress on lifetimes is described under Our Technology under Item 1 above. Progress in the other areas is demonstrated by the increasing size of demonstrators being shown (including a 40" active matrix ink jet printed full color demonstrator shown by Seiko Epson in May 2004), the increasing number of companies which are working with us on technology services and development projects and our increasing revenues from these projects.

Although we believe that P-OLED display technology has the potential to enable displays to be manufactured at lower cost than competing LCD technology, this cost advantage will not be realized until P-OLED technology is proved in volume manufacturing. LCD manufacturing companies continue to strive to reduce unit manufacturing costs and such cost reductions will make it more difficult for P-OLED technology to penetrate the market, although we believe that the simpler structure of P-OLED display devices compared to LCD will mean that, ultimately, P-OLED displays will be cheaper to produce.

We believe that the FPD market will remain price sensitive. Limited penetration of P-OLED displays will be possible if there is a price premium, but we believe that any such premium will have to erode and that production costs at volume will have to be lower for P-OLED than for competing technologies in order that P-OLED products can take significant market share.

In reading our financial statements, you should be aware of the following factors and trends that our management believes are important in understanding our financial performance:

Because our license fees often consist of large one-time payments and our royalties for the foreseeable future are expected to be smaller, recurring payments, we expect fluctuations in these revenues depending on the periods in which we enter into new licenses.

## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

We have and will continue to invest significant resources in research and development in order to develop and effectively demonstrate our technology so that it can be commercialized in a growing number of applications. Our total research and development expenditures in 2004 were \$14.2 million.

The extent to which we continue to enter into new technology development agreements and existing technology development partners enter into commercial licenses for use of our P-OLED technology impacts our future royalties.

The extent to which our existing licensees expand the use of our P-OLED technology in commercial applications in their consumer electronic products impacts our future royalties.

## **Table of Contents**

### **Description of Our Revenues, Costs and Expenses**

#### *Operating Revenues and Cost of Sales*

#### *License Fees and Royalties*

The most important sources of our revenues are licensing fees and subsequent royalties. Typical license terms include the payment of an upfront fee, which is higher for licenses covering larger or more complex displays. The sale of a license is often the culmination of a lengthy period of relationship building, technical development and negotiation. Our results can show much higher revenues in those quarters during which licenses were sold as the upfront fee is generally recognized in full in the quarter in which the license fee is due.

Licenses vary with regard to which sections of our patent portfolio are covered and for what purposes. They include display device licenses (which may include restrictions with regard to the type of display and the maximum number of pixels), lighting device licenses, material licenses (which may restrict the class of materials which can be manufactured) and component licenses which cover components required to manufacture P-OLED and other OLED devices.

We receive non-refundable fees upon execution of most patent licenses followed, in some cases, by additional fees payable either at a fixed future time or on achievement of defined milestones, such as commencement of commercial production. Additionally, after the delivery of a license we may receive license royalties, which comprise defined percentages of the value of the products sold under the terms of the relevant licenses. Depending on the nature of the licenses, products which attract a royalty are P-OLED display or other devices, P-OLED materials or OLED semiconductor driver circuits. Most of our royalties are payable quarterly and some licenses include provision for a minimum royalty to be paid each year.

#### *Other License Related*

In the year ended December 31, 2004, we reported \$0.9 million of Other license related revenues, which related to the re-sale by us to a third party of certain rights to intellectual property that we had previously acquired from that third party.

#### *Technology Services and Development*

We receive fees under the terms of technology service agreements in exchange for us carrying out agreed development programs with customers in order to meet defined technical objectives. In addition, we receive fees from customers for the transfer of technology, which may include manufacturing know-how transfer, supply of display prototype devices and other samples and provision of access to our personnel and technical facilities.

*Litrex Revenue*

Revenues recorded by Litrex for the sale of ink jet printing equipment and related services are consolidated into our results through August 2003, but not thereafter as a result of our sale of 50% of our interest in Litrex to Ulvac, Inc., a manufacturer and marketer of semiconductor capital equipment.

*Equipment Sales and Supplies*

We receive revenues for the sale of ink jet printing and display device test equipment and related supplies.

*Cost of Sales*

The only cost of sales for our license fees and royalties that we report is for payments to third parties from whom we have in-licensed IP rights. We expect this cost to be approximately 1% of revenue, but it may increase in future years if the relative contribution of in-licensed IP rights to our overall IP portfolio changes or if we decide to license certain IP to which we have sub-licensing rights. For technology services and development, the incremental costs of providing services under those agreements plus the cost of any resold materials or equipment is charged to cost of sales.

## **Table of Contents**

### *Operating Expenses*

#### *Research and Development Expenses*

Research and development expenses consist primarily of salaries, bonuses and related benefits for personnel engaged in research and development activities (including costs reimbursed to universities under sponsored research agreements), together with the costs of purchasing and maintaining laboratory and clean room equipment and facilities and the costs of materials used in the development and analysis of P-OLED materials and in the fabrication of display and other devices.

#### *Selling, General and Administrative Expenses*

Our selling, general and administrative expenses include salaries, bonuses and related benefits of sales and marketing, human resources, facilities, finance, legal, IP protection and corporate management staff as well as travel costs, consulting, information systems expenses, external legal counsel costs and patent filing and prosecution costs.

#### *Amortization of Intangibles Acquired*

Our amortization of intangibles acquired includes the amortization of acquired patent rights from third parties as well as the amortization of intangibles acquired as a result of our acquisition of CDT Holdings plc in 1999. The amortization period for these assets is between five and ten years.

### **Critical Accounting Policies and Significant Developments and Estimates**

The discussion and analysis of our financial condition and results of operations are based on our consolidated financial statements. The preparation of these statements requires us to make certain estimates and judgments that effect the statement of operations, balance sheet, cash flow or disclosures relating to contingent assets or liabilities. Our actual results might, under different assumptions and conditions, differ from our estimates. Significant estimates include the valuation of our IP, lives of our long-lived assets and estimates related to the delivery of know-how and services under technology services contracts. The following is a discussion of our most critical policies as well as the estimates and judgments involved.

#### *Revenue Recognition*

Our revenues derive from license fees and royalties due under license agreements, payments due under various technology development agreements, sales of our own equipment and sales of equipment and services by Litrex through August 2003. Non-refundable license fees are recognized when they fall due and when collection can be reasonably assured, providing that the license has been delivered and where we have

## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

no ongoing obligation under that license. Once a license has been delivered, royalties are recorded as revenue when they become receivable and collection is reasonably assured. Where an extended obligation does exist, upfront license fees are amortized, generally on a straight-line basis, over the period of that obligation.

Revenue for the provision of technology development services is recognized as those services are delivered and revenue for transfers of know-how once the corresponding documentation or electronic records have been delivered. We enter into a number of Technology Services and Development contracts which involve multiple elements including (i) provision of services, (ii) the transfer of know-how or (iii) the supply of equipment. We recognize revenue on a straight line basis over the duration of arrangements that involve the delivery of multiple elements where no individual element qualifies as a separate unit of accounting. In the event that delivery of all elements is not completed over the projected duration our revenues could be impacted. Under equipment supply contracts, we seek written confirmation of acceptance by the customer and recognize revenue after such acceptance has been received, any final payment has been invoiced and collectibility is reasonably assured.

Contracts may include provision for us to provide a specified amount of support after the end of the term of the project plan. The fair value of this post-contract consultancy can be objectively determined based on the rate

## **Table of Contents**

we charge third parties for similar services, since it can be quantified as a specific number of days of support from us. In these cases, revenue for the post-contract consultancy is deferred until either the support is delivered or the obligation to provide the support expires. When contracts involve us devoting technology development effort to projects, revenue under these contracts is amortized over the life of the contract on a straight-line basis as the associated costs are relatively consistent from period to period.

We report revenues in the categories Licensing and Royalties, Technology Development and Services, Equipment Sales and, up until August 2003, Litrex revenues. Where single contracts include revenues for more than one of these categories such revenues are allocated to the respective lines based upon the relative fair value of each element delivered.

### *Basis of Presentation*

We have a 50% equity interest in a related party, Litrex, a developer and supplier of ink jet printing equipment which can be used in the manufacture of P-OLED displays. Litrex was a subsidiary of our company from November 2001 until August 2003, and was consolidated into our financial statements between those dates. In August 2003, we sold 50% of our interest in Litrex to Ulvac. Since August 2003, 50% of the net losses of Litrex have been reported by us using the equity method.

We acquired a 16% equity interest in CDT Oxford Limited in October 2002. CDT Oxford carries out research in high efficiency P-OLED materials and was 84% owned by Opsys Limited. In December 2004 we acquired the remaining 84% of CDT Oxford. We have had full management control over CDT Oxford since October 2002 and have been responsible for funding its operations since that time. Until December 2003, we accounted for 100% of the results of this company in a manner similar to the equity method. Commencing January 1, 2004, we consolidated CDT Oxford as a subsidiary pursuant to the terms of FIN No. 46(R), Consolidation of Variable Interest Entities. Under the terms of the October 2002 transaction agreement, call and put options were in place, which determined how we would acquire the remaining 84% of CDT Oxford, or, alternatively, if certain conditions are met, 100% of the stock of Opsys Limited, in either case for a consideration of 678,595 shares of our class A common stock. In order to consolidate CDT Oxford effective January 1, 2004, we included those shares on our balance sheet as Non-controlling interest CDT Oxford, valued at the October 2002 fair value of that stock. We have performed a valuation of CDT Oxford as of October 2002 in order to fairly allocate the assets and liabilities as if CDT Oxford had been acquired in a business combination and the fair value of CDT Oxford was the full price payable, including the actual price paid in October 2002 for 16% of the equity and the value of the 678,595 shares which were to be issued when the put or call option was exercised. Under the terms of the Transaction Agreement, we would only acquire Opsys Limited, rather than the remaining 84% of CDT Oxford, in the event that Opsys Limited had no significant assets other than its shareholding in CDT Oxford and its liabilities were less than \$1.25 million.

Subsequent to our original agreement with Opsys in October 2002, certain disputes arose between Opsys and ourselves which were settled by a Settlement and Amendment Agreement, pursuant to which we acquired 100% of the shares of Opsys Limited in December 2004 by the issuance of 797,695 shares of our common stock. At the time of this acquisition, Opsys had liabilities of \$1.6 million which we assumed. 19,736 shares of our common stock were issued to two former directors of Opsys in settlement of \$0.2 million of these liabilities. The remaining \$1.4 million of these liabilities will be paid by us in cash during 2005. The amended and restated Settlement and Amendment Agreement provides for an escrow of approximately 53% of the shares issuable to the Opsys shareholders against certain contingent liabilities and the possibility that other liabilities will emerge.

When we issued, in aggregate, 817,431 shares of our common stock in conjunction with the Opsys transaction described above, based on the initial public offering price of \$12.00 per share, the value of that stock was \$9.8 million. This issuance of stock is reflected in our statement of shareholders equity.

## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

The functional currency of the CDT group is the U. S. dollar but a substantial proportion of transactions are denominated in the British pound and other currencies. In particular more than three quarters of our operating



## **Table of Contents**

expenses are denominated in British pounds. During each accounting period we recognize exchange gains and losses due to non-U. S. dollar liabilities and receivables being settled at exchange rates which differ from those at which the transactions were originally booked and due to the revaluation of non-US dollar denominated assets and liabilities at the end of each accounting period.

We have given retroactive effect to a 0.5851807-for-one reverse stock split which took place immediately prior to our initial public offering in December 2004.

### *Valuation of Goodwill*

Goodwill is included in the balance sheet as a result of our acquisition of the U.K. members of the CDT group in 1999 and the consolidation of CDT Oxford in 2004. We perform an annual impairment test on the value of goodwill and, to date, have concluded that no impairment is required. For the purposes of this impairment test we have concluded that the CDT group is one reporting unit. This impairment test includes an element of subjective judgment with regard to the future commercial prospects for P-OLED technology.

The goodwill impairment test is a two-step process, which requires management to make judgments in determining what assumptions to use in the calculation. The first step of the process consists of estimating the fair value of our reporting unit based on a discounted cash flow model using revenue and profit forecasts and comparing the estimated fair value with the carrying value. If the estimated fair value is less than the carrying value, a second step is performed to compute the amount of the impairment by determining an implied fair value of goodwill. The determination of a reporting unit's implied fair value of goodwill requires the allocation of the estimated fair value of the reporting unit to the assets and liabilities of the reporting unit. Any unallocated fair value represents the implied fair value of goodwill, which will then be compared to its corresponding carrying value. We cannot predict the occurrence of certain future events that might adversely affect the reported value of goodwill and/or intangible assets. Such events include, but are not limited to, strategic decisions made in response to economic and competitive conditions, the impact of the economic environment on our customer base, and material negative change in relationship with significant customers. The implied fair value of reporting unit will be determined by our management and will generally be based upon future cash flow projections for the reporting unit, discounted to present value.

### *Valuation of Intangible Assets*

We have not impaired the value of certain in-licensed IP, which is valued (net of accumulated amortization) at \$1.8 million as of December 31, 2004 and is being amortized at a rate of \$0.25 million per quarter. The licensor has advised us that the license of this IP has terminated, on grounds which we believe are not well founded. The licensor has been in negotiation with us with a view to resolving this dispute in such a way that we would retain our rights to the intellectual property. We believe that this dispute will be resolved satisfactorily without recourse to legal action. In the event that these discussions are not successful, we could incur material legal costs in protecting this license. In the event that the license is not reinstated we will write-off this asset. We have licensed this technology to one licensee and may be liable for damages in the event that this license is not reinstated.

However, although we believe that there is some potential to license this intellectual property, we do not believe that it is a critical component of our portfolio and the loss of this license will not have a material impact on our future financial performance.

### *Stock-Based Compensation*

## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

As explained in Note 2 to our consolidated financial statements, we have elected to follow Accounting Principles Board Opinion No. 25, *Accounting for Stock Issued to Employees* and related interpretations in accounting for stock options. Accordingly, other than certain grants at less than fair value, we have recognized no compensation expense with respect to options granted to employees. We account for options and warrants issued to non-employees based on the fair value of the options and warrants granted, as is required under SFAS 123 and EITF 96-18.

**Table of Contents**

In 2004, we allocated awards under our special bonus plan to certain officers and employees. These awards were made from a bonus pool with a value of \$14.4 million, based on the initial public offering price for our common stock of \$12.00 per share. All awards under this plan made with respect to our initial public offering were made in restricted stock units representing a right to receive, in aggregate, 1,200,000 shares of our common stock. Such awards will vest in three equal installments on each of the first three anniversaries of the public offering. However, if Kelso sells, in the aggregate, more than 25% of its shares of our common stock, such awards will vest in full upon such sale. We are expensing the value of these awards over a three-year period commencing December 2004, subject to acceleration in the event of a Kelso sale.

Substantially all awards made under this plan will be subject to U.K. employer's national insurance tax, which is currently 12.8% of the value of the awards and which would be payable by us based on the market value of the stock on the date it becomes available for sale. The award to our chief executive officer, representing 35% of the bonus pool, or 420,000 restricted stock units with a value of \$5.0 million at the initial public offering price of \$12.00 per share, will vest whether or not he remains employed by us unless he is terminated for cause (as defined in his employment agreement), his employment agreement is not extended for cause or if he terminates his employment in circumstances that justify termination for cause. The value of this award, plus the U.K. employer's national insurance tax of 12.8% payable by us, was expensed upon the consummation of our initial public offering. The remaining 65% of the bonus pool is being expensed over the three year vesting period. The accrued charge for the U.K. employer's national insurance tax will depend on the market price of our common stock when it is delivered and will be subject to variability upon fluctuations in our stock price until such time as all shares of our common stock have been delivered to recipients of awards under this plan. The U. K. National Insurance will have to be paid at the time the stock is issued to the award holders.

The table below shows the actual and expected expense amounts in relation to these restricted stock units, assuming that the accelerated vesting condition described above does not apply:

Restricted Stock Units (RSUs)	Expense Charge	U. K. National Insurance Accrual
	based on \$12 per share IPO price [1]	based on 12.8% of 97% of the RSUs [2]
	(in thousands)	(in thousands)
Q4 2004	\$ 5,134	\$ 623
Charge per Quarter from Q1 2005 to Q3 2007	\$ 780	\$ 90
Q4 2007	\$ 686	\$ 79
Total	\$ 14,400	\$ 1,692

[1] Fixed accounting treatment applies for the charge related to the RSUs this charge will not vary with share price movements

[2] The accrual for U. K. National Insurance will be recalculated at the end of each quarter based on the closing price of our stock on the last day of each quarter. Figures in this column are based on the closing price on December 31, 2004 of \$ 11.38 If the price appreciates, future charges will be commensurately higher and vice versa.

*Equity Investments*

We have equity investments in our related parties Litrex Corporation and Arborescent 2 Limited of respectively 50% and 40% of the outstanding equity. Both are accounted for by the equity method and both are loss making. We report a percentage of the losses of both company's using the equity method. Since our share of the losses of Arborescent 2 Limited now exceed the carrying value of this investment, we no longer report further losses.

We have investments of less than 5% of the issued share capital of Plastic Logic Limited and MicroEmissive Displays plc. Plastic Logic is an early stage private company and we do not attribute any value to this investment, which was acquired pursuant to a cross license agreement between Plastic Logic and ourselves. MicroEmissive Displays is a publicly listed company and we value our investment at market value as a current marketable security.

**Table of Contents***Income Taxes*

We are liable for franchise taxes to Delaware, our state of incorporation. Such taxes have been included in the provision for income taxes for the years ended December 31, 2004, 2003 and 2002. For the years ended December 31, 2004, 2003 and 2002, we recorded a tax benefit primarily due to a research and development tax credit from 2004 and prior years. Our U.K. subsidiaries are eligible to participate in the U.K.'s research and development tax credit program. Under this program, small and medium sized enterprises, such as us, are permitted a deduction in taxable profits of 150% of the amount of certain research and development expenditures (primarily salaries, salary related costs and consumables used in research and development activities). This deduction may be surrendered for a cash payment of 16% of the total deduction for those years during which we sustain a loss. Cambridge Display Technology Limited, our principal operating subsidiary, and CDT Oxford have both claimed such cash payments for the years ended December 31, 2001, 2002 and 2003. If our revenues increase such that we no longer satisfy the criteria to be considered a small to medium sized enterprise (including, for example, annual revenues not exceeding 40.0 million Euro), we will no longer be eligible to claim any cash payments for future periods and our permitted deduction will be reduced to 125% of qualifying research and development expenditures.

The tax refund in relation to 2003 has not yet been received since our claim is being investigated by the U. K. tax authorities with respect to whether or not we meet the criteria of being a small or medium-sized enterprise. We believe that we do meet these criteria and have provided documentation to prove this. In the event the U. K. tax authorities were to rule that we did not qualify for any repayment we would have to reverse a tax benefit of \$3.8 million of which \$2.3 million relates to 2003 and \$1.5 million relates to 2004 but we would not be required to repay any tax repayments which have been received in relation to prior years. We plan to continue claiming this tax repayment for 2005 and expect, therefore, book a tax benefit each quarter in 2005. The tax figures for 2004 are based on our estimate of what our tax return will show. It is possible that the actual figures will differ once the final calculations have been made.

Our deferred tax assets are comprised primarily of net operating loss carryforwards. At December 31, 2004, we had net operating loss carryforwards of approximately \$73.7 million. These loss carryforwards may be used to offset taxable income in future periods, reducing the amount of taxes we might otherwise be required to pay. Due to a lack of a history of generating taxable income, we record a valuation allowance equal to 100% of our net deferred tax assets.

**Results of Operations***Comparison of Fiscal Years Ended December 31, 2004 and December 31, 2003*

<b>Operating Revenues</b>	<b>% Increase /</b>		
<i>(in thousands)</i>	<b>2004</b>	<b>2003</b>	<b>(Decrease)</b>
License fees and royalties	\$ 6,791	\$ 4,314	57%
Other license related	900		
Technology services and development	4,982	3,758	33%
Equipment and supplies	613		
Litrex revenues		2,608	
<b>Total operating revenues</b>	<b>\$ 13,286</b>	<b>\$ 10,680</b>	<b>24%</b>

## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

License fees and royalties grew by \$2.5 million, or 57%, from \$4.3 million in 2003 to \$6.8 million in 2004. License fee revenues in 2003 were \$4.3 million, and comprised revenues from two new licenses and two existing licenses. License fee revenues in 2004 were \$4.2 million all of which came from contractual stage payments under or negotiated upgrades to three existing licenses. No further license fee stage payments under existing licenses are expected in 2005. In 2004, we reported \$0.9 million of other license related revenues, which related to the re-sale by the Company to a third party of certain rights to intellectual property that the Company had previously acquired from that third party. We believe that it is likely that other amendments to the provisions of

**Table of Contents**

our licenses will be negotiated in the future and that this may be a source of further revenue. Although we are working closely with a number of potential licensees, there can be no certainty that any new licenses will be negotiated during 2005. Royalties increased from \$0.4 million from five different companies in 2003 to \$2.6 million from seven different companies in 2004. \$2 million of this increase was due to two \$1 million annual minimum royalty payments which became due for the first time in 2004. We expect that royalty revenues will continue to grow in 2005.

Technology services and development revenues grew by \$1.2 million from \$3.8 million in 2003 to \$5.0 million in 2004. This growth is due to a significant increase in the number of technology transfer and development contracts. Equipment and supplies revenues of \$0.6 million in 2004 related to the supply of OLED device testing equipment. We expect significant growth in the combined Technology services and development and Equipment and supplies lines in 2005. We have entered into contracts which include the supply of ink jet printing equipment as well as technology transfer and expect to be recognizing revenues from these contracts as the equipment is accepted in 2005.

Total operating revenues increased by \$2.6 million from \$10.7 million in 2003 to \$13.3 million in 2004, an increase of 24%. However, subsequent to the sale of 50% of our equity stake in Litrex in August 2003, we no longer consolidate Litrex revenues. If Litrex revenues are excluded, revenues for the remaining revenue lines grew by 65%. We believe that continued revenue growth is probable in 2005.

Given the nature of our business and the current stage of our development, revenues fluctuate significantly from quarter to quarter. For example, we expect low revenues in the first quarter of 2005 but we do not believe that this will be indicative of the remainder of the year.

Sumitomo Chemical, DuPont Displays, Seiko Epson and MicroEmissive Displays each accounted for in excess of 10% of our total revenues for 2004. Sumitomo Chemical and a company in the same group as DuPont Displays are both minority shareholders, each owning less than 10% of our common stock.

<b>Cost of Sales</b>	<b>% of</b>		<b>% of</b>	
	<b>2004</b>	<b>Revenues *</b>	<b>2003</b>	<b>Revenues *</b>
<i>(in thousands)</i>				
License fees and royalties	\$ 186	3%	\$ 245	6%
Other license related	9	1%		
Technology services and development	1,481	30%	109	3%
Equipment and supplies	318	52%		
Litrex revenues			1,173	45%
<b>Total Cost of sales</b>	<b>\$ 1,994</b>	<b>15%</b>	<b>\$ 1,527</b>	<b>14%</b>

\* the percentages shown in these columns represent each Cost of sales figure divided by the corresponding Revenue figure from the Operating Revenues table above

Cost of sales related to License fees and royalties fell from 6% in 2003 to 3% in 2004. The primary component of cost of sales for both years was payments to third parties from whom we have acquired intellectual property. During 2004 we re-negotiated the most significant contract related to third party intellectual property and, as a result of this, we expect that cost of sales for License fees and royalties will be in the range 1% to 2% in 2005.

Cost of sales related to Technology services and development increased from 3% in 2003 to 30% in 2004. This is because we offered more comprehensive technology transfer and development service arrangements in 2004 than we had previously, resulting in increased revenues but

## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

also increased associated costs commensurate to increased internal effort on service delivery. We account for cost of sales on an incremental cost basis and, therefore, relatively high margins are required in order that these contracts make a contribution to our fixed costs.

<b>Research and development</b>			
<i>(in thousands)</i>	<b>2004</b>	<b>2003</b>	<b>% Increase / (Decrease)</b>
<b>Total Research and development expenses</b>	<b>\$ 14,181</b>	<b>\$ 16,841</b>	<b>(16)%</b>



**Table of Contents**

Our research and development expenses decreased by \$2.6 million from \$16.8 million in 2003 to \$14.2 million in 2004. \$0.5 of this reduction was due to an increase of \$0.5 million in government grants from \$1.1 million in 2003 to \$1.6 million in 2004. We do not expect that this level of grant income will be repeated in 2005. \$2.4 million of the decrease was due to the Litrex research and development expense which was included in our consolidated results up to August 2003 but was zero in 2004. \$1.0 million of the increase was due to research and development expenses of CDT Oxford which were not included in our consolidated results in 2003 but are included in 2004. Excluding all the variances mentioned previously in this paragraph, research and development expense decreased from \$15.5 million in 2003 to \$14.8 million in 2004 due to our July 2003 re-organization which resulted in a general reduction in total research and development expenditures due to the consolidation of our clean room activities to our Technology Development Centre. In addition to the \$14.8 million expenditure on research and development in 2004, \$2.0 million was incurred on very similar activities but in support of revenue-generating projects this level of support for such projects is likely to continue in 2005 and will continue to be reported as a cost of sales. Research and development expenses will continue to vary from quarter to quarter due to the specific requirements of the projects being carried out in any quarter.

<b>Selling, general and administrative expenses</b>	%		
<i>(in thousands)</i>	<b>2004</b>	<b>2003</b>	<b>Increase / (Decrease)</b>
Total Selling, general and administrative expenses	\$ 18,751	\$ 12,769	47%

Our selling, general and administrative expenses increased by \$6.0 million from \$12.8 million in 2003 to \$18.8 million in 2004. \$5.8 million of this increase was due to a charge in relation to awards of restricted stock units which were made in the fourth quarter of 2004. A decrease of \$2.1 million was due to the Litrex selling, general and administrative expense which was included in our consolidated results in 2003 but is not included in 2004. \$0.2 million of the increase was due to selling, general and administrative expenses of CDT Oxford which were not included in our consolidated results in 2003 but are included in 2004. Excluding the variances mentioned previously in this paragraph, selling, general and administrative expenses increased by \$1.3 million from \$11.7 million in 2003 to \$13.0 million in 2004 due to a \$0.7 million expense related to our line of credit and \$0.4 million was due to increased patent filing costs and other factors. We believe that we will incur significant additional selling, general and administrative expenses in 2005 associated with our transition from private to public company.

Our amortization of intangibles acquired remained constant at \$1.6 million for both 2003 and 2004. See note 2 of our financial statements for details of expected amortization of intangibles in future years.

<b>Other income (expense)</b>		
<i>(in thousands)</i>	<b>2004</b>	<b>2003</b>
Equity in loss CDT Oxford	\$	\$ (2,355)
Equity in loss Arborescent	(85)	
Equity in loss Litrex	(2,461)	(1,284)
Currency translation adjustments	1,045	1,603
Other income	210	
Interest income	347	415
Interest expense	(36)	(6)
<b>Total Other income (expense)</b>	<b>\$ (980)</b>	<b>\$ (1,627)</b>

Equity in loss CDT Oxford was \$2.4 million in 2003 but zero in 2004 because, effective January 1, 2004, CDT Oxford was accounted for as a subsidiary, as described under Basis of Presentation above. We acquired an equity stake in Arborescent in October 2004 and expect that it will

## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

be loss-making in 2005, although this investment is now valued at zero on our balance sheet and we will only report further losses if we make further investments in that company. The increase in the Equity in loss in Litrex from \$1.3 million in 2003 to \$2.5 million in 2004 was due to 2004 comprising a full year of losses and 2003 comprising less than five months. We will continue to report 50% of the losses of Litrex while we continue to hold a 50% equity stake. We expect to

**Table of Contents**

sell this 50% equity stake in November 2005 and expect continuing losses as Litrex continues to invest in ink jet printer development. Currency gains and losses primarily result from the revaluing assets and liabilities denominated in currencies other than U. S. dollars. We would expect a gain from such revaluations in 2005 if the U. S. dollar weakens versus the British pound during the year and a loss if it strengthens.

Other income of \$0.2 million in 2004 relates to an unrealized gain in the value of forward exchange contracts which we have taken out in order to economically hedge future British pound expenses.

Interest income was lower in 2004 than in 2003 due to lower average cash balances unless interest rates fall, we expect higher interest income in 2005 due to our higher cash balance following our initial public offering. Interest expense increased in 2004 due to borrowing we made under our credit facility. We do not expect to borrow from this facility in 2005.

Our benefit for income taxes increased by \$0.7 million from \$0.9 million in 2003 to \$1.6 million in 2004. Our final computation of the amount due in relation to 2003 was \$0.4 million higher than had originally been estimated in our 2003 financial statements and our final computation of the amount due in relation to 2002 was \$0.1 million higher than had originally been estimated in our 2002 and 2003 financial statements. In addition costs eligible for the research and development tax credit were higher in 2004 compared with 2003.

Our loss before cumulative effect of accounting change decreased by \$0.2 million from \$22.8 million in 2003 to \$22.6 million in 2004. Our net loss to common shareholders increased by \$44.0 million due to a \$12.2 million cumulative effective of accounting change due to the consolidation of CDT Oxford as described in note 3 of our financial statements and a \$32.0 million increase in the accretion of preferred stock. The incremental accretion related to the conversion of the preferred stock to common stock in connection with the initial public offering.

The \$12.2 million cumulative effect of accounting change related to a write-off of \$14.2 million of in-process research and development, less \$2.0 million which had already been amortized in 2002. One significant research project into dendrimer material development was acquired in this transaction. This project was at an early stage of development and it was our intention that further developments would involve combining these materials with other materials which we were developing. At the time of acquisition, these materials had lifetimes (measured at 100 candela per meter squared) of approximately 1,000 hours and we estimated that lifetimes of approximately 100,000 hours would need to be achieved in order for these materials to be suitable for all commercial applications, although some commercial applications would be possible with lower lifetimes. We expected that materials incorporating the acquired technology would require approximately five more years of development work prior to commercialization and continue to believe that the timetable is realistic. The development work requires a team of chemists working on material development, supported by engineers and physicists testing the performance of the developed materials in display devices. As with any acquisition of development stage technology, there is a risk that the acquired technology will not, ultimately, lead to commercial revenues, or that development time will be longer than had been previously estimated, but progress to date has been in line with our expectations. We believe that access to this technology has increased the likelihood that we, in conjunction with our materials licensees, will develop a new generation of high efficiency P-OLED materials. If this work does not lead to projected revenues, our financial results may be adversely impacted. However, other P-OLED materials are being developed using other technological approaches and, therefore, we do not believe that the failure of this work would, in itself, have a material adverse effect on our financial performance or liquidity.

***Comparison of Fiscal Years Ended December 31, 2003 and December 31, 2002***

<b>Operating Revenues</b>	<b>2003</b>	<b>2002</b>	<b>%</b>
<i>(in thousands)</i>	<u>          </u>	<u>          </u>	<b>Increase /</b>

Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

			<u>(Decrease)</u>
License fees and royalties	\$ 4,314	\$ 2,474	74%
Technology services and development	3,758	727	417%
Litrex revenues	2,608	3,852	(32)%
<b>Total operating revenues</b>	<b>\$ 10,680</b>	<b>\$ 7,053</b>	<b>51%</b>

30

**Table of Contents**

License fees and royalties grew by \$1.8 million, or 74%, from \$2.5 million in 2002 to \$4.3 million in 2004. License fee revenues in 2002 were \$2.2 million, and comprised revenues from one new licensee and one existing license. License fee revenues in 2003 were \$3.9 million and comprised revenues from two new licensees and two existing licensees. Royalties increased from \$0.3 million from three different companies in 2002 to \$0.4 million from five different companies in 2003.

Our revenues from technology services and development increased by \$3.0 million from \$0.7 million in 2002 to \$3.8 million in 2003. The increase was primarily due to a contract for technology transfer to one of our display manufacturer licensees under which we recognized revenue of \$3.1 million in 2003.

Our revenues from Litrex decreased by \$1.3 million, or 32%, from \$3.9 million in 2002 to \$2.6 million in 2003. The decrease was due to the fact that Litrex revenues and costs were no longer included in our financial statements after August 2003.

Our total operating revenues were \$10.7 million for the year ended December 31, 2003 compared to \$7.1 million for the year ended December 31, 2002. Revenues from DuPont Displays and Dai Nippon Printing each accounted for in excess of 10% of our total revenues during 2003 and DuPont Displays and MicroEmissive Displays each accounted for more than 10% of our revenues in 2002. An affiliate of DuPont Displays is one of our minority shareholders, owning less than 10% of our common stock.

<b>Cost of sales</b>	<b>% of</b>		<b>% of</b>	
	<b>2003</b>	<b>Revenues *</b>	<b>2002</b>	<b>Revenues *</b>
<i>(in thousands)</i>				
License fees and royalties	\$ 245	6%	\$	
Technology services and development	109	3%		
Litrex revenues	1,173	45%	1,792	47%
<b>Total Cost of sales</b>	<b>\$ 1,527</b>	<b>14%</b>	<b>\$ 1,792</b>	<b>25%</b>

\* the percentages shown in these columns represent each Cost of sales figure divided by the corresponding Revenue figure from the Operating Revenues table above

Our cost of sales decreased by \$0.3 million, or 15%, from \$1.8 million in 2002 to \$1.5 million in 2003. Our cost of sales were slightly lower in 2003 as 2003 did not include cost of sales relating to Litrex after August 2003. This decrease was partially offset by a charge of \$0.2 million in 2003 that related to IP rights in-licensed from a third party.

<b>Research and development</b>	<b>%</b>		
	<b>2003</b>	<b>2002</b>	<b>Increase / (Decrease)</b>
<i>(in thousands)</i>			
Total Research and development expenses	\$ 16,841	\$ 19,676	(14)%

Our research and development expenses decreased by \$2.9 million, or 14%, from \$19.7 million in 2002 to \$16.8 million in 2003. This was due to the receipt of \$1.1 million in U.K. government and European Union grants in 2003 as compared to \$0.6 million in 2002, an increase of \$0.5 million, and a decrease of \$1.7 million in Litrex research and development expense reported in 2003 since no expense was reported for the period after August 2003. The remainder of the decrease was due to a reorganization of research facilities and staff in the second half of 2003,

## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

including the relocation of the former CDT Oxford offices in Oxford, England to Cambridge, England and the consolidation of all of our clean room facilities within our Technology Development Center. The reorganization caused a reduction in research activity and expense as staff were being relocated and facilities moved.

<b>Selling, general and administrative expenses</b>			<b>%</b>
<i>(in thousands)</i>	<b>2003</b>	<b>2002</b>	<b>Increase /</b>
			<b>(Decrease)</b>
Total Selling, general and administrative expenses	\$ 12,769	\$ 16,903	(24)%

**Table of Contents**

Our selling, general and administrative expenses decreased by \$4.1 million, or 24%, from \$16.9 million in 2002 to \$12.8 million in 2003. The decrease was primarily due to the fact that 2002 included a \$2.0 million write-off of an equity investment and a write-off of purchased IP of \$1.0 million that were not repeated in 2003. In addition, our selling, general and administrative expenses for the year ended December 31, 2003 did not include costs relating to Litrex after August 2003.

Our amortization of intangibles decreased by \$2.1 million, or 57%, from \$3.7 million in 2002 to \$1.6 million in 2003. The decrease was related to a \$2.0 million charge in 2002 associated with the acquisition of a license from Opsys Limited with no corresponding charge in 2003. This transaction is described more fully in Note 3 to our consolidated financial statements.

**Other income (expense)**

<i>(in thousands)</i>	<b>2003</b>	<b>2002</b>
Equity in loss CDT Oxford	\$ (2,355)	\$ (651)
Equity in loss Litrex	(1,284)	
Currency translation adjustments	1,603	44
Interest income	415	282
Interest expense	(6)	(10)
<b>Total Other income (expense)</b>	<b>\$ (1,627)</b>	<b>\$ (335)</b>

Our total other expense increased by \$1.3 million from \$0.3 million in 2002 to \$1.6 million in 2003. The increase in expenses related to increases in equity in loss of both CDT Oxford and Litrex. There was no corresponding equity in loss in Litrex in 2002, since it was a consolidated subsidiary for the whole of that year, and as CDT Oxford was acquired in October 2002, there was a smaller corresponding loss. Currency translation adjustments were \$1.6 million in 2003 and a negligible amount in 2002 this large increase was due to relative volatility of the U. S. dollar versus the British pound in 2003 versus 2002. The increase in interest income from \$0.3 million in 2002 to \$0.4 million in 2003 is due to higher average cash balances being held in 2003.

Our benefit for income taxes decreased by \$2.7 million from \$3.6 million in 2002 to \$0.9 million in 2003. In 2002, we elected to surrender certain tax losses related to research and development expenses incurred in 2001 and 2002 in exchange for a cash payment from the U. K. tax authorities. The benefit for 2003 related to a similar amount being claimed for 2003. However, the proportion of research and development expenses eligible for this tax repayment was lower in 2003 than it had been in the two prior years. Additionally, we paid \$0.2 million more in taxes in 2003, mainly due to tax which became payable on the profit made on the sale of 50% of our equity stake in Litrex.

Our net loss decreased by \$8.9 million, or 28%, from \$31.7 million (or \$3.35 per share) in 2002 to \$22.8 million (or \$3.04) per share) in 2003. The decrease in net loss was due to decreases in selling, general and administrative expenses, research and development expense and amortization expense, the increase in revenues, partially offset by increases in our equity interest in the loss of Litrex and CDT Oxford and a decrease in tax benefit.

**Liquidity and Capital Resources**

Since our inception, the primary source of our funding has been the sale of our equity securities. From 1999 until our initial public offering in December 2004, \$216.4 million was raised through private placements of our common and preferred equity securities. Approximately 50% of these proceeds were used to fund the acquisition of CDT Holdings plc in 1999 and the remaining 50% was used to fund our operations. Through

## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

October 2002, all equity raised was through sales of shares of our class A common stock and class B common stock. In December 2002, a preferred stock funding round raised \$15.0 million from the sale of shares of our series A convertible preferred stock and series B convertible preferred stock. In connection with this \$15.0 million investment, a further \$10.0 million which had been invested in common stock in July 2002 was exchanged for shares of our series B convertible preferred stock in December 2002. In addition, \$6.4 million, net of expenses, of which \$4.2 million in consideration was in the form of cash and \$2.2 million was in the form of shares of our common stock,



**Table of Contents**

was invested in shares of our series B convertible preferred stock in the first quarter of 2003. Currently, we have three strategic investors, DuPont, Sumitomo Chemical and Toppan, who, in the aggregate, have invested \$20.0 million of cash for shares of our common stock.

Approximately 74% of sales of our common and preferred stock described above have come from our principal stockholders (affiliates of Kelso and Hillman Capital), 9% from sales to strategic investors (DuPont, Sumitomo Chemical and Toppan), 16% from non-cash consideration (acquisition of shares in CDT Holding plc, Opsys Limited and Litrex) and 1% from other stockholders.

In December 2004, we raised \$30.0 million, or \$25.0 million net of expenses, through an initial public offering of our common stock on the Nasdaq National Market. Immediately prior to this offering all of our redeemable preferred stock was converted to common stock on terms described in note 9 of our financial statements. We have no current plans to raise cash from equity offerings.

Our cash balance was \$26.9 million as of December 31, 2004. Net cash used in operating activities was \$28.8 million for the year ended December 31, 2002, \$14.1 million for the year ended December 31, 2003 and \$6.1 million for the year ended December 31, 2004. Net cash used in operating activities in 2003 was less than was used in 2002 due to decrease in the net loss, the increase in our equity in loss of Litrex and CDT Oxford and an increased deferred revenue balance. Net cash used in operations in 2004 was less than used in 2003 because we were no longer required to fund Litrex in 2004 and our payables and deferred revenue balances were higher at the end of 2004 than they had been at the end of 2003. Until August 2003, we provided 100% of the funding of Litrex, but after we sold a 50% equity stake to Ulvac Inc, a Japanese company, in August 2003, Ulvac took over responsibility for the funding of Litrex. In June 2004 we executed a letter of commitment in favor of Litrex under the terms of which we agreed to fund Litrex by up to \$1.25 million, if required by Litrex, but we did not provide any funding under the terms of this letter during 2004. We do not believe that cash used in operations will fall significantly, if at all, in 2005 versus 2004. We have no outstanding borrowings under our credit facility and are not currently planning to draw down under this facility.

Capital expenditures were \$4.4 million in 2002, \$3.6 million in 2003 and \$2.4 million in 2004 and are expected to be somewhere between these latter two figures in 2005. Our property, equipment and leasehold improvements balance fell from \$19.7 million at December 31, 2003 to \$16.0 million at December 31, 2004 due to the continuing depreciation of the assets which comprise our Technology Development Centre.

Our prepaid and other assets increased from \$2.6 million at December 31, 2003 to \$6.9 million at December 31, 2004. This increase was due to costs related to technology services and development and equipment contracts for which we incurred expenditures during 2004 but have not yet recognized any revenues. Our current deferred revenue balance increased from \$0.9 million at the end of 2003 to \$6.9 million at the end of 2004. We expect to realize all currently deferred revenue in 2005, but, given that it is our objective to enter into further such contracts in 2005, we would expect significant balances to remain in both prepaid and other assets and deferred revenue at the end of 2005.

Net cash used in investing activities for the year ended December 31, 2002 was \$9.4 million, of which \$5.0 million was used to acquire control of CDT Oxford and \$4.4 million to acquire property, equipment and leasehold improvements related to our Technology Development Center and for upgrades to our laboratory and clean room facilities in Cambridge. For the year ended December 31, 2003, investing activities generated \$8.3 million, primarily comprised of \$12.1 million in proceeds from the sale of Litrex less \$3.6 million for the acquisition of property, equipment and leasehold improvements for our technical facilities, including costs related to the relocation of certain research activities to our Technology Development Center. Net cash used in investing activities for the year ended December 31, 2004 was \$2.4 million. We used \$2.4 million for the acquisition of property, equipment and leasehold improvements during the year ended December 31, 2004, we had an inflow of \$1.6 million when we began treating CDT Oxford as a consolidated entity and invested \$1.1 million in equity of MicroEmissive Displays.

---

**Table of Contents**

Sales of shares of our common stock in 2002, net of related expenses, were \$36.3 million, of which \$4.6 million was for non-cash consideration. Sales of shares of our series A and series B convertible preferred stock, net of related expenses, were \$25.0 million in 2002, of which \$10.0 million was issued in exchange for shares of our common stock, and \$6.9 million in 2003, of which \$2.2 million was issued in exchange for shares of our common stock.

We expect, based on our internal forecast and assumptions relating to our operations (including, among others, assumptions regarding our working capital requirements, the progress of our research and development efforts and revenues) that we have sufficient cash to meet our obligations for at least the next twelve months. We have a line of credit that we entered into in July 2004 providing for a maximum amount of \$15.0 million, which was not drawn upon at December 31, 2004 and of which \$0.5 million may not be borrowed. This line of credit is available for a minimum of one year, renewable for two further years, and is secured by a letter of credit issued by Wells Fargo Bank, which is secured by our patents, trademarks and copyrights and associated license revenues. In addition to certain fixed fees payable regardless of whether or not the facility is utilized and which amount to approximately 3% of the total amount of the facility per year, we will be liable to pay interest and charges of 3.75% above the U.S. dollar London Inter-Bank Offer Rate on any drawing under this facility. Under the terms of this facility, any draw down requires us to certify that we continue to satisfy certain financial covenants: specifically our Consolidated Total Net Worth, as defined, must exceed \$75.0 million, and our current assets less current liabilities, but excluding deferred revenue, must not be less than minus \$15.0 million. In addition, we are required to report the filing of any new patents, trademarks and copyrights and add those to the existing intellectual property portfolio which has been assigned as security to IPI Financial Services which arranged the letter of credit. We are obligated to maintain the validity of all of our patents and only to license such patents to third parties under terms which are within the parameters of our customary licensing practices or to which IPI Financial Services has provided its consent. We are currently renegotiating this facility and if we do not come to an agreement on improved terms we expect to retire this facility in 2005.

In November 2004, we purchased \$1.1 million of common stock of Micro-Emissive Displays in conjunction with an initial public offering of Micro-Emissive Displays in the U.K. Following the consummation of Micro-Emissive Displays' initial public offering on December 1, 2004, a license related payment of \$0.9 million became due to us from Micro-Emissive Displays and a further payment of \$0.5 million which would have been due in 2005 also became due immediately. Both of these payments have been made to us. As of the consummation of the initial public offering of Micro-Emissive Displays, our equity interest in Micro-Emissive Displays will represent less than 5% of the overall equity capitalization of that company. We report this asset as a marketable security in our current assets. The stock price is quoted in British pounds and we revalue these securities at the end of each quarter. Any gain or loss due to changes in the stock price and any gain or loss due to changes fluctuations in the US dollar to British pound exchange rate are reported in other comprehensive income.

We also expect that, in November 2005, we will sell our remaining 50% stake in Litrex pursuant to the terms of our contract with Ulvac for a minimum of \$10.0 million see Note 3 to our consolidated financial statements. We and Ulvac have agreed to provide financial support to Litrex and, during the first quarter of 2005, we have loaned Litrex \$1.3 million and may loan Litrex additional amounts later in 2005. The \$1.3 million loan is repayable on January 31, 2006 or when there is a change in Litrex ownership, except that if we sell our remaining stake in Litrex to Ulvac and Ulvac agrees to guarantee the loan at that time, the repayment date will remain at January 31, 2006. The loan is interest bearing at a rate of between 5.25% and 5.50% depending on the date of the advance.

In March 2005 we invested \$1.0 million in Add-Vision Inc., a company located in California that researches and develops flexible, low cost, low resolution displays. We also granted Add-Vision a fully paid-up license to our intellectual property in return for additional equity. As a result of these transactions, we will own an equity interest in Add-Vision of approximately 50%. We are currently evaluating whether or not Add Vision falls within the definition of a variable interest entity and needs to be accounted for as a consolidated subsidiary or as an affiliate under the equity method. Add-Vision may require additional funding in the future and we may contribute to such funding.

**Table of Contents**

During 2004 we entered into a number of forward exchange contracts to sell U. S. dollars and buy British pounds in order to fund our U. K. operating expenses during 2005. We entered into fixed rate contracts for each of the months from January to April 2005 for an aggregate amount of \$6.0 million at exchange rates ranging from 1.83 to 1.85. We entered into further contracts for each of the months from May to December with at an exchange rate of no higher than 1.96 and for an aggregate amount of \$14.0 million. Under the terms of the later contracts, if the spot exchange rate as each contract matures is higher than 1.96 we will sell the U. S. dollars at a rate of 1.96. If the spot exchange rate as each contract matures is lower than 1.96 we will sell the half of the contracted U. S. dollars at a rate of 1.96 and half at the spot exchange rate. The purpose of these transaction is to limit the risk of adverse exchange rate fluctuations while retaining some benefit in the event of favorable fluctuations. We may enter into similar transactions in the future. These contracts were not designated as hedging instruments and, therefore, gains and losses are recognized immediately in earnings during the period.

**Off-Balance Sheet Arrangements**

We have no material off-balance sheet arrangements other than those that are discussed under Contractual Obligations .

**Contractual Obligations**

As of December 31, 2004, we had the following contractual commitments, some of which are not recorded as liabilities on our financial statements:

<i>(in thousands)</i>	Payments Due by Period*				
	Total	Less than			> 5
		1 year	1-3 years	3-5 years	years
	(In thousands)				
Operating leases	\$ 5,614	\$ 672	\$ 1,344	\$ 1,344	\$ 2,254
Contracted capital expenditures	152	152			
Sponsored research	1,417	652	765		
Pension liability	500			500	
<b>Total</b>	<b>\$ 7,683</b>	<b>\$ 1,476</b>	<b>\$ 2,109</b>	<b>\$ 1,844</b>	<b>\$ 2,254</b>

We have a number of contractual commitments to provide services, perform research or transfer know-how. In most cases, we receive revenue which, at least, covers our costs of fulfilling our obligations under those contracts and, except as detailed below, as of December 31, 2004, none had a term which extended beyond the end of 2005.

Under the terms of a contract between Sumitomo Chemical and us, we are obligated to provide the equivalent of 12 full service scientists and engineers to work on a development project for a three-year period which will end in December 2006 and to contract with two U.K. universities to carry out additional research activities. Sumitomo Chemical is obligated to provide the equivalent of two full service equivalent scientists for this project. The contract includes a provision requiring both parties to fund 50% of the total costs of these activities, calculated on a fully

## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

allocated basis. Costs related to this contract have not been included in the table above.

Under the terms of a contract between Covion and us, we are obligated to provide the equivalent of 10 full service scientists and engineers to work on research and development projects related to P-OLED materials until December 2006. We receive royalties from Covion based on revenues from all of Covion's sales of P-OLED materials, whether or not those materials were developed by our project team. Through the end of 2004, the royalties received from Covion were less than our costs of funding the project team. Since royalties will continue to be payable after the obligation to provide research services has concluded, we expect that the contract will be profitable. Accordingly, we have not provided for a loss on this contract and have not included the costs in the above table.

**Table of Contents**

Litrex led a consortium which is developing ink jet printing technology under a project which is funded by the U.S. government. Up until August 2003, when we sold 50% of our equity interest in Litrex, \$1.5 million had been received by Litrex in grant funding for that project, of which \$1.0 million was passed on to other consortium members. Under the terms of this arrangement, should Litrex be sold to a non-U.S. company, previously received grant income may have to be reimbursed. We expect that we will sell our remaining 50% equity interest in Litrex in November 2005 to a non-U.S. company. In the event that Litrex is obligated to repay any or all of the \$1.5 million, we have agreed that we will reimburse the amount which has to be repaid.

In June 2004 we executed a letter of commitment in favor of Litrex under the terms of which we agreed to fund Litrex by up to \$1.25 million, if required by Litrex. We did not provided any funding under the terms of this letter during 2004 but may do so in the future.

We believe that we will have sufficient resources to meet these commitments from our existing capital resources and future revenues.

## **Table of Contents**

### **Factors That May Affect Our Operating Results**

*An investment in our common stock involves a high degree of risk. You should carefully consider the risks described below together with all of the other information included in this Annual Report on Form 10-K before making an investment decision. If any of the following risks actually occurs, our business, financial condition or results of operations could suffer. In that case, the trading price of our common stock could decline, and you may lose all or part of your investment. This Annual Report on Form 10-K also contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those expected in those forward-looking statements as a result of certain factors, including the risks faced by us described below and elsewhere in this Annual Report on Form 10-K.*

### **Risks Relating to Our Business and Industry**

*We have a history of losses, do not expect to be profitable in the foreseeable future and may never be profitable.*

Since inception, we have generated limited revenues while incurring significant losses. We expect to incur losses for the foreseeable future until such time, if ever, as we are able to achieve sufficient levels of revenue from the commercial exploitation of our Polymer Organic Light Emitting Diode, or P-OLED, technology to support our operations. You should note that:

P-OLED technologies may never be broadly commercially adopted;

markets for flat panel displays, or FPDs, using P-OLED technologies may be limited; and

we may never generate sufficient revenues from the commercial exploitation of our P-OLED technology to become profitable.

We license our P-OLED technology to P-OLED materials manufacturers and display manufacturers, which then incorporate our technology into the materials and products they sell. Even if we and our display manufacturer licensees develop commercially viable applications for our P-OLED technologies, we may never recover our research and development expenses. We had net losses of \$31.7 million, \$22.8 million and \$34.8 million for the years ended December 31, 2002, December 31, 2003 and December 31, 2004, respectively, and as of December 31, 2004, we had an accumulated deficit of \$153.9 million. We expect to report net losses in future periods. We cannot predict what impact continued net losses might have on our ability to finance our operations in the future or on the market value of our common stock.

*Because we are at an early stage of development and have a limited operating history, our future results are unpredictable.*

Our future success is uncertain because we have a limited operating history and face many risks and uncertainties. If we are unsuccessful in addressing these risks and uncertainties, we may be unable to generate sufficient revenue growth to support ongoing operations. We were formed in 1992 to research and develop P-OLED technology. We began licensing P-OLED technology to original equipment manufacturers, or OEMs, in 1996, and in 2002 this technology was initially commercialized. Accordingly, there is only a limited amount of past experience upon which to evaluate our business and prospects, and a potential investor should consider the challenges, expenses, delays and other difficulties involved in the development of our business, including the continued development of our P-OLED technology, refinement of processes and

## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

components for commercial products using our P-OLED technology, formation of additional commercial relationships and achievement of market acceptance for products using P-OLED technology.

***If our P-OLED technology is not feasible for broad-based product applications, we may never generate revenues sufficient to support ongoing operations.***

Before display manufacturers will agree to use our P-OLED technology for wide-scale commercial production, they will likely require us to demonstrate to their satisfaction that our P-OLED technology is feasible

## **Table of Contents**

for their particular product applications. This, in turn, would require additional advances in our research and development efforts, as well as those of others, for applications in a number of areas, including:

device reliability;

the development of P-OLED materials with sufficient lifetimes, brightness and color coordinates for full-color P-OLED displays in more demanding applications, such as televisions; and

issues related to scalability and cost-effective fabrication technologies for product applications.

Currently, P-OLED displays are being used or tested for small- to medium-sized product applications such as mobile phones, PDAs, or personal digital assistants, digital cameras and camcorders (including electronic viewfinders), portable DVD players, electric shavers, MP3 players, in-car entertainment and navigation displays and other applications. P-OLED displays have not yet been commercially introduced in larger applications such as laptop computers, desktop computer monitors or televisions other than in prototypes. To date, we have not attained the service lifetimes required by the manufacturers of these more demanding larger applications.

Our research and development efforts remain subject to all of the risks associated with the development of new products based on emerging and innovative technologies, including, for example, unexpected technical problems or the possible insufficiency of funds for completing development of these products. Technical problems may result in delays in the implementation of our technologies in specific applications and cause us to incur additional expenses that would increase our losses. If we cannot complete research and development of our P-OLED technology successfully, or if we experience delays in completing research and development of our P-OLED technology for use in potential commercial applications, particularly after incurring significant expenditures, our business may fail.

*Even if our P-OLED technology is technically feasible, it may not be adopted by display manufacturers.*

The potential size, timing and viability of market opportunities targeted by us through our display manufacturer licensees are uncertain at this time. Market acceptance of our P-OLED technology will depend, in part, upon this technology providing benefits comparable to or greater than those provided by cathode ray tube display and liquid crystal display, or LCD, technology (the current standard display technologies) at an advantageous cost to manufacturers, and the adoption of products incorporating this technology by consumers.

Display manufacturers make the determination during their product development programs whether to incorporate our P-OLED technology or pursue other alternatives, and they may be forced to make significant investments of time and cost well before they introduce their products incorporating our technology to the consumer market and before they can be sure that they will generate any significant sales to recover their investment. Moreover, certain existing licensees and potential licensees of our P-OLED technology currently manufacture FPDs using competing technologies, and they may, therefore, be reluctant to redesign their products or manufacturing processes or invest in new or converted facilities to incorporate our P-OLED technology.

During a display manufacturer licensee's entire product development process, we face the risk that our technology will fail to meet our licensee's technical, performance or cost requirements or will be replaced by a competing product or alternative technology. For example, we are aware that some of our licensees have entered into arrangements with our competitors regarding the development of competing technologies, including the potential production of OLED displays by ink jet printing using phosphorescent materials. Even if we offer technology that is satisfactory to



## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

a display manufacturer licensee, they may choose to delay or terminate their product development efforts for reasons unrelated to our technology. The occurrence of any of these events would adversely affect our royalty revenues and may make it difficult to attract additional licensees.

*There are alternatives to P-OLEDs for FPDs, which may limit our ability to commercialize our P-OLED technology.*

The FPD market is currently, and will likely continue to be for some time, dominated by displays based on LCD technology. Numerous companies have made and are continuing to make substantial investments in, and

## **Table of Contents**

are conducting research to improve the characteristics of LCDs. Several other FPD technologies have been, or are being, developed, including technologies for the production of field emission, inorganic electroluminescence and gas plasma. Advances in LCD technology or any of these other technologies may overcome their current limitations and permit them to remain or become more attractive technologies for FPDs, either of which could limit the potential market for FPDs using our P-OLED technology. This, in turn, would cause display manufacturers to avoid entering into commercial relationships with us, or to renegotiate, terminate or not renew their existing relationships with us, causing our business strategy to fail.

*Other OLED technologies may be more successful than ours which may limit the commercial adoption of our P-OLED technology.*

Other companies have developed OLED technologies that differ from and compete with our P-OLED technology. Certain of these competing OLED technologies entered the marketplace prior to ours and may become entrenched in the flat panel industry before our P-OLED technologies have a chance to become widely adopted. Moreover, competitors may succeed in developing new OLED technologies or new manufacturing techniques that are more cost-effective or have fewer limitations than our P-OLED technology or other existing OLED technologies. If our P-OLED technology is unable to capture a substantial portion of the OLED display market, our business strategy may fail.

*Because we do not manufacture or sell any products to end users, we depend on the manufacturing capabilities of our display manufacturer licensees. Any difficulties or delays affecting their manufacturing processes or any decision to terminate or reduce their display manufacturing businesses could harm our business.*

We license our P-OLED technology to display manufacturers, who then incorporate our technology into the products that they sell. Because we do not manufacture any commercial products, our success depends on the ability and willingness of our licensees to develop, manufacture and sell commercial products integrating our technology. Any significant disruption or increase in cost of the manufacturing processes of our display manufacturer licensees or a decision by any of our display manufacturer licensees to terminate or reduce their efforts to manufacture or sell displays would adversely affect our royalty revenues and thus our business.

We have been notified that Philips is considering strategic options for its P-OLED business, but that no decisions have yet been made. We have received \$543,000 (which includes \$533,000 received by Litrex), \$33,000 and \$70,000 in revenues from Philips in, respectively, fiscal years 2002, 2003 and 2004. We do not expect these actions to have any material impact on our financial results in fiscal year 2005. We can provide no assurances with respect to alternatives Philips may be considering or the effects that any decision by Philips with respect to its P-OLED business may have on our business or future results of operations.

Mass production of P-OLED displays will require the availability of suitable manufacturing equipment, components and materials. Equipment is currently available for many of the required process steps, but the processes and equipment that will be required to deposit P-OLED materials for large-sized, full-color displays are still under development. High precision ink jet printing equipment that could be used to deposit P-OLED materials is being developed by some companies, but, to our knowledge, is only being made available for sale at this time by Litrex Corporation, our 50%-owned former subsidiary. The availability of suitable ink jet printing equipment will be contingent on the continued technical success of and sufficient funding for Litrex's or another manufacturer's development program. In addition, certain of the components, such as low temperature poly silicon backplanes, used in the production of our licensees' display products are available only from a limited number of suppliers.

If display manufacturers are unable to obtain ink jet printing or other suitable P-OLED deposition equipment or are unable to source other key equipment for the manufacture of large panel sizes, or if they experience unexpected difficulties, expenses or delays with respect to additional

required technologies, components or other materials, they may experience increased costs or manufacturing delays and may not be able

## **Table of Contents**

to manufacture larger-sized, full-color P-OLED displays, or may exit the display manufacturing business entirely. This would adversely affect our license fees or royalty payments from them, and we may not be able to increase our revenues and achieve profitability.

*We expect to derive an increasing portion of our revenues from royalties on sales of products commercialized by our licensees that incorporate our technology. Our display manufacturer licensees operate in a highly competitive environment, and they may not be able to achieve and sustain market position. If they fail to compete successfully, our royalties will decrease or be eliminated.*

Because we do not sell any products to end-users, our success depends upon the ability and continuing willingness of our display manufacturer licensees to market commercial products integrating our technology and the widespread acceptance of those products. Any slowdown in the demand for our licensees' products would adversely affect our royalty revenues and thus our business. The markets for our display manufacturer licensees' products are highly competitive, with pressure on prices and profit margins due largely to additional and growing capacity from FPD industry competitors. The principal elements affecting our licensees' competitive performance in the market for end-user products include their abilities to:

access required capital;

conduct research and development;

reduce time-to-market;

reduce production costs;

offer a competitive price;

offer attractive product features and quality;

offer customer service, including product design support; and

provide sufficient quantity of products to fulfill end-user demand.

Success in the market for end-user products that may integrate our P-OLED technology also depends on factors beyond the control of our licensees and us, including the cyclical and seasonal nature of the end-user markets that our licensees serve, as well as industry and general economic conditions. If our licensees fail or otherwise reduce their efforts to commercialize products that incorporate our technology or exit the display manufacturing business entirely, our business strategy may fail.

*Many of our competitors have greater resources, which may make it difficult for us to compete successfully against them.*

## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

The FPD industry is characterized by intense competition. Many of our LCD and OLED competitors have better name recognition and greater financial and personnel resources and technical, marketing and research capabilities than us, and because of these differences, we may never be able to compete successfully in the FPD market.

LCD is currently the dominant technology in the FPD market. Many of the leading LCD panel manufacturers, such as AU Optronics, Chunghwa Picture Tubes, LG.Philips, Samsung Electronics and Sharp, are large, established companies with global marketing capabilities, widespread brand recognition and extensive financial resources.

Eastman Kodak Company, or Kodak, is our principal competitor in the OLED industry, with several licensees already in commercial production of displays incorporating its passive matrix small molecule OLED, or SMOLED, technology. In addition, Kodak manufactures active matrix SMOLED displays under a joint venture with Sanyo Electric.

## **Table of Contents**

The leading LCD panel manufacturers, who use competing technologies but are also potential licensees of our P-OLED technology, are considerably larger and more established companies, with global marketing capabilities and substantially greater financial resources to devote to research and development than we have. If our technology does not compete effectively with these and other display technologies, our business strategy will fail.

*If our materials supplier licensees fail to make advances in their research, or if they exit that business or otherwise terminate or elect not to renew their relationships with us, we might not succeed in commercializing our P-OLED technology.*

Research and development of commercially viable applications for our P-OLED technology depends substantially on the success of work relating to P-OLED materials, including resolution of issues relating to materials lifetimes and efficiencies at the brightness levels required for large panel applications. We cannot be certain that we or our materials supplier licensees will make sufficient additional advances in the research and development of P-OLED materials to satisfy these requirements. Moreover, if our materials supplier licensees are unable to meet the requirements of our display manufacturer licensees, or if they exit the P-OLED materials supply business or otherwise terminate or elect not to renew their relationships with us and no viable successor can be found, our business strategy may fail.

*If we cannot form and maintain lasting business relationships with P-OLED display manufacturers, our business strategy will fail.*

Our business strategy depends upon our development and maintenance of commercial licensing relationships with high-volume manufacturers of P-OLED displays. As of December 31, 2004, we had entered into eight licenses with display manufacturers, and have seven other relationships with manufacturers which are limited to technology development and the evaluation of our P-OLED technology for possible use in commercial production. Any of these relationships may fail to result in the display manufacturers entering into a licensing arrangement or, subsequently, commercial production, as applicable, of devices using our P-OLED technology on a scale sufficient for our business strategy to succeed. Moreover, if a licensee is no longer using our technology, it can generally terminate the license agreement upon notice and without further payment to us.

Under our existing technology development and evaluation agreements, we are working with display manufacturers to incorporate our technology into their products for the commercial production of P-OLED displays. However, these technology development and evaluation agreements typically last for limited periods of time, and these relationships may never lead to development of products and entry into license agreements.

Currently, and for the foreseeable future, a significant portion of our revenues are and will be derived from a concentrated number of licensees. In 2002, 2003 and 2004, nine, 10 and five licensees accounted for, respectively, 70%, 74% and 66% of our revenues. Furthermore, in each of 2002, 2003 and 2004, two, two and four licensees accounted individually for more than 10% of our revenues. Our future success will depend upon our ability to establish and maintain relationships with key licensees and to attract new licensees. If our royalty revenues are derived from a concentrated few licensee relationships, our operating results will be harmed if those licensees experience operating difficulties or curtail or terminate their use of our licensed technology, and we are not able to obtain replacement royalty sources. Replacement royalty sources may be difficult to obtain because of the lengthy periods required to attract and sign-up new licensees and have them enter commercial production.

Our ability to enter into additional commercial licenses, or to maintain our existing technology development and evaluation relationships, may require us to make financial or other commitments. We might not be able, for financial or other reasons, to enter into or continue these relationships on commercially acceptable terms, or at all. Failure to do so would cause our business strategy to fail.

*Conflicts may arise with our licensees or joint development partners, resulting in renegotiation or termination of, or litigation related to, our agreements with them. This would adversely affect our revenues.*

Conflicts could arise between us and our licensees or joint development partners as to royalty rates, milestone payments or other commercial terms. Similarly, the parties may disagree as to which party owns or has

## **Table of Contents**

the right to commercialize intellectual property that is developed during the course of the relationship or as to other non-commercial terms. If such a conflict were to arise, a licensee or joint development partner might attempt to compel renegotiation of certain terms of their agreement or terminate their agreement entirely, and we might lose the royalty revenues and other benefits of the agreement. Either we or the licensee or joint development partner might initiate litigation to determine commercial obligations, establish intellectual property rights or resolve other disputes under the agreement. Such litigation could be costly to us and require substantial attention of management. If we were unsuccessful in such litigation, we could lose the commercial benefits of the agreement, be liable for other financial damages and suffer losses of intellectual property or other rights that are the subject of dispute. Any of these adverse outcomes could cause our business strategy to fail.

*If we do not receive additional financing in the future, we might not be able to continue the research, development and commercialization of our P-OLED technology.*

Our capital requirements have been, and will continue to be, significant. Substantial additional funds will be required in the future to maintain current levels of expenditure for research, development and commercialization of our P-OLED and related technologies, to obtain and maintain patents and other intellectual property, or IP, rights in these technologies, and for working capital and other purposes, the timing and amount of which are difficult to forecast. Our total research and development expenditures were \$16.8 million in 2003 and \$14.2 million in 2004. Our cash on hand will not be sufficient to meet all of our future needs. When we need additional funds, such funds may not be available on commercially reasonable terms, or at all. If we cannot obtain more money when needed, we might be forced to cut back our current activities and our business might fail. In July 2004, we secured a line of credit in a maximum amount of \$15.0 million, of which \$0.5 million may not be borrowed, available for one year and extendible for up to two additional years to meet our short term capital requirements. There are financial costs associated with maintaining and accessing this facility. In addition, any borrowing under this facility is secured by a letter of credit issued by Wells Fargo Bank, which is secured by our IP portfolio and results in the imposition of certain financial and operating restrictions by the lender.

As part of our agreement with Ulvac, Inc., or Ulvac, for the sale to Ulvac of a 50% interest in Litrex, we granted Ulvac a call, and obtained a put, on our remaining 50% interest in Litrex, exercisable in August 2005, with the closing to occur within 90 days of exercise. We expect that the sale of our remaining 50% interest in Litrex to Ulvac will occur in November 2005 and that we will receive a minimum of \$10.0 million from Ulvac. Nevertheless, under certain circumstances such as infringement, impairment or unavailability of intellectual property required for Litrex to operate, or the departure of a group of key employees from Litrex, this sale may not proceed. If the sale does not proceed, we will not receive the expected proceeds from the sale of Litrex stock to Ulvac. In addition, in certain circumstances, we may be required to repurchase Ulvac's 50% interest in Litrex for \$15.1 million, the price Ulvac paid for their 50% interest, plus any additional funding that Ulvac provided to Litrex. If Ulvac were to fail to perform its obligations to continue to support Litrex's development of ink jet printers for the display manufacturer industry, we may exercise our rights under a fallback license to obtain the necessary IP to develop, manufacture and supply ink jet printing equipment for use by manufacturers using our P-OLED technology independent of Litrex. In any such circumstance, we may incur substantial additional costs in order to ensure that ink jet printing equipment is made available for P-OLED display manufacturers. We have provided loans of \$1.3 million to Litrex so far in 2005 and may provide additional loans, or other forms of funding, to Litrex in the future.

If we are unable to meet our currently projected liquidity requirements from our existing resources, we may need to borrow money or issue additional equity or debt securities. We may not be able to borrow money on commercially reasonable terms or at all. If we attempt to raise money in an offering of shares of our common stock, preferred stock, warrants or debt securities, or if we engage in acquisitions involving the issuance of such securities, our then-existing stockholders may be diluted. If we are unable to obtain required financing or reasonable terms, our business may fail.



## **Table of Contents**

*We or our licensees may incur substantial costs or lose important rights as a result of litigation or other proceedings relating to our patent and other intellectual property rights.*

In recent years, there has been significant litigation involving patents and other IP rights in many technology-related industries, including our own. Until recently, many patent applications were retained in secrecy by the United States Patent Office until and unless a patent issued. As a result, there may be United States patent applications pending that may be infringed by the use of our technology or a part thereof, thus substantially interfering with the future conduct of our or our licensees' business. In addition, there may be issued patents in the United States or other countries that are pertinent to our or our licensees' business of which we are not aware. Our licensees could be sued by other parties for patent infringement in the future. Such lawsuits could subject them to liability for damages or require our licensees to obtain additional licenses that could increase the cost of their products, which might have an adverse affect on their sales and thus our royalties or cause them to seek to renegotiate our royalty rates.

In addition, in the future we may assert our IP rights by instituting legal proceedings against others. We cannot assure you that we will be successful in enforcing our patents in any lawsuits we may commence. Defendants in any litigation we may commence to enforce our patents may attempt to establish that our patents are invalid or are unenforceable. Thus, any patent litigation we commence could lead to a determination that one or more of our patents are invalid or unenforceable. If a third party succeeds in invalidating one or more of our patents, that party and others could compete more effectively against us. Our ability to derive licensing revenues from products or technologies covered by these patents could also be adversely affected.

Whether our licensees are defending the assertion of third-party IP rights against their businesses arising as a result of the use of our technology, or we are asserting our own IP rights against others, such litigation can be complex, costly, protracted and highly disruptive to our or our licensees' business operations by diverting the attention and energies of management and key technical personnel. As a result, the pendency or adverse outcome of any IP litigation to which we or our licensees are subject could disrupt business operations, require the incurrence of substantial costs and subject us or our licensees to significant liabilities, each of which could severely harm our business.

Plaintiffs in IP cases often seek injunctive relief. Any IP litigation commenced against our licensees could force them to take actions that could be harmful to their business and thus to our royalties, including the following:

stop selling their products that incorporate or otherwise use technology that contains our allegedly infringing IP;

attempt to obtain a license to the relevant third-party IP, which may not be available on reasonable terms or at all; or

attempt to redesign their products to remove our allegedly infringing IP to avoid infringement of the third-party IP.

If our licensees are forced to take any of the foregoing actions, they may be unable to manufacture and sell their products that incorporate our technology at a profit or at all. Furthermore, the measure of damages in IP litigation can be complex, and is often subjective or uncertain. If our licensees were to be found liable for infringement of proprietary rights of a third party, the amount of damages they might have to pay could be substantial and is difficult to predict. Decreased sales of our licensees' products incorporating our technology would adversely affect our royalty revenues under existing licenses. Any necessity to procure rights to the third-party technology might cause our existing licensees to renegotiate the royalty terms of their license with us to compensate for this increase in their cost of production or, in certain cases, to terminate their license with us entirely. Were this renegotiation to occur, certain of our license agreements that contain most favored nation provisions, requiring that we offer at least as favorable terms to the holder of such a license as we offer to any other licensee, would be affected and we would also receive reduced royalties from those licenses. These developments would also harm our ability to compete for new licensees and would adversely affect

the terms of the royalty arrangements we could enter into with any new licensees.

## **Table of Contents**

As is commonplace in technology companies, we employ individuals who were previously employed at other technology companies. To the extent our employees are involved in research areas that are similar to those areas in which they were involved at their former employers, we may be subject to claims that such employees or we have, inadvertently or otherwise, used or disclosed the alleged trade secrets or other proprietary information of the former employers. Litigation may be necessary to defend against such claims. The costs associated with these actions or the loss of rights critical to our or our licensees' business could negatively impact our revenues or cause our business to fail.

***If we cannot obtain and maintain appropriate patent and other intellectual property rights protection for our P-OLED technology, our business will suffer.***

The value to us of our P-OLED and related technologies is dependent on our ability to secure and maintain appropriate patent and other IP rights protection. Although we own or license many patents covering our technology that have already been issued, there can be no assurance that additional patents applied for will be obtained, or that any of these patents, once issued, will afford commercially significant protection for our technology, or will be found valid if challenged. Moreover, we have not obtained patent protection for some of our technology in all foreign countries in which P-OLED displays or materials might be manufactured or sold. In any event, the patent laws and enforcement regimes of other countries may differ from those of the United States as to the patentability of our P-OLED and related technologies and the degree of protection afforded.

The strength of our current IP position results primarily from the essential nature of our fundamental patents covering the P-OLED device and its manufacturing process and electroluminescent devices containing conjugated polymers. These patents expire in 2010 and 2011. While we hold a wide range of additional patents and patent applications whose expiration dates extend (and in the case of patent applications, will extend) well beyond 2011, many of which are also of key importance in the OLED industry, none are of an equally essential nature as our fundamental patents, and therefore our competitive position after 2011 may be less certain.

We may become engaged in litigation to protect or enforce our patent and other IP rights or in International Trade Commission proceedings to abate the importation of goods that would compete unfairly with those of our licensees. In addition, we may have to participate in interference or reexamination proceedings before the U.S. Patent and Trademark office, or in opposition, nullity or other proceedings before foreign patent offices, with respect to our patents or patent applications. All of these actions would place our patents and other IP rights at risk and may result in substantial costs to us as well as a diversion of management attention. Moreover, if successful, these actions could result in the loss of patent or other IP rights protection for the key P-OLED and related technologies on which our business strategy depends.

In addition, we rely in part on unpatented proprietary technology, and others may independently develop the same or similar technology or otherwise obtain access to our unpatented technology. To protect our trade secrets, know-how and other proprietary information, we require employees, consultants, financial advisors and strategic partners to enter into confidentiality agreements. These agreements may not ultimately provide meaningful protection for our trade secrets, know-how or other proprietary information in the event of any unauthorized use, misappropriation or disclosure of those trade secrets, know-how or other proprietary information. In particular, we may not be able to fully or adequately protect our proprietary information as we conduct discussions with potential strategic partners. If we are unable to protect the proprietary nature of our technology, it will harm our business.

***We are exposed to currency fluctuations, which may have an adverse effect on us.***

A substantial majority of our licensing revenues are denominated in U.S. dollars. These licensing revenues include royalties based on revenues or production costs of our licensees that may be denominated in U.S. dollars or other currencies. Where such revenues or production costs of our

## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

licensees are denominated in other currencies, they are converted to U.S. dollars for the purpose of calculating any licensing royalties due to us. Our licensing royalty revenues may decrease as a result of any appreciation of the U.S. dollar against these other

## **Table of Contents**

currencies. The majority of our current expenditures are incurred in British pounds in order to fund our operations in the United Kingdom. If the U.S. dollar depreciates versus the British pound, additional U.S. dollars will be required to fund our operations in the United Kingdom.

We take out forward currency contracts to cover future projected currency conversions. At present, forward contracts are only committed to when funds are already on hand to settle the forward contracts. Although we do not currently enter into currency option contracts or engage in other hedging activities, we may do so in the future. There can be no assurances that any such hedging activities will be successful in reducing the risks to us of our exposure to foreign currency fluctuations and these fluctuations may adversely affect our results of operations, financial condition or cash flows.

*We are a holding company with no significant independent operations, and we therefore rely on our subsidiaries to make funds available to us.*

We are a holding company with no significant independent operations and no significant assets other than the capital stock of our subsidiaries. We, therefore, will be dependent upon the receipt of dividends or other distributions from our subsidiaries. The declaration of dividends by our subsidiaries will be subject to the discretion of their boards of directors and will depend on a number of factors, including their results of operations, financial condition, liquidity requirements and indebtedness and restrictions imposed by applicable law. Our inability to receive funds from our operating subsidiaries would adversely affect our ability to meet our obligations and to make dividend payments and other distributions, if any, to holders of our common stock.

*Due to our significant level of international operations, we are subject to international operational, financial, legal and political risks which may negatively impact our operations.*

A substantial part of our operations are in the United Kingdom, and many of our licensees have a majority of their operations in countries other than the United States. Risks associated with our doing business outside of the United States include:

compliance with a wide variety of foreign laws and regulations, particularly labor, environmental and other laws and regulations that govern our operations in the United Kingdom;

legal uncertainties regarding taxes, tariffs, quotas, export controls, export licenses and other trade barriers;

economic instability in the countries of our licensees, particularly in the Asia-Pacific region, causing delays or reductions in orders for their products and therefore our royalties;

political instability in the countries in which our licensees operate, particularly in South Korea relating to its disputes with North Korea and in Taiwan relating to its disputes with China;

difficulties in collecting accounts receivable and longer accounts receivable payment cycles; and

## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

potentially adverse tax consequences.

Any of these factors could harm our or our licensees existing international operations and business and impair our or our licensees ability to continue expanding into international markets.

A significant portion of our assets, certain of our directors and most of our executive officers are located outside of and are not residents of the United States. As a result, it may be difficult or impossible for U.S. investors to effect service of process upon such non-resident directors or officers within the United States or to realize against them in the United States upon judgment of courts of the United States predicated upon civil liabilities under the federal securities laws of the United States or the securities or blue sky laws of any state within the United States. In addition, courts of another country may not enforce judgments of United States courts obtained in actions against us, our directors or our officers predicated upon the civil liability provisions of the United States federal securities laws or the securities or blue sky laws of any state within the United States or enforce, in original actions, liabilities against us, our directors or our officers predicated upon the United States federal securities laws or any state securities or blue sky laws.

## **Table of Contents**

***Our agreements with our licensees and joint development partners are subject to regulation by the European Commission, and particularly to antitrust provisions of such regulations, which could result in fines to us or in those agreements being declared void in whole or in part, either of which would negatively impact our revenues.***

Our IP licensing agreements and joint development agreements fall under the antitrust provisions of the Treaty of Rome, and related regulations. While our display license agreements are generally non-exclusive and without geographic restriction, and while our licensing and joint development relationships generally represent lower market shares than would result in the application of the regulations' remedies, any violation of the regulations could result in the anti-competitive provisions or the entire relevant agreement being declared void and unenforceable. In addition, we could be subject to a fine of up to 10% of the income of our worldwide group.

***If we cannot keep our key employees or hire other talented persons as we grow, our business might not succeed.***

Our performance is substantially dependent on the continued services of senior management, particularly our Chief Executive Officer, who has been principally responsible for establishing and maintaining many of our most important commercial relationships, and our Chief Technology Officer, who was one of the inventors of our fundamental P-OLED technology and helps direct our technology development program, and on our ability to offer competitive salaries and benefits to our employees. We do not carry key person life insurance on any of our senior management or other key personnel. If we lose the services of key senior management personnel, we may not be able to find suitable replacements in a timely manner or at all, which would seriously harm our business. Additionally, competition for highly skilled technical, managerial and other personnel is intense. We might not be able to attract, hire, train, retain and motivate the highly skilled managers and employees that we might need to be successful. If we fail to attract and retain the necessary technical and managerial personnel, our business will suffer and might fail. We currently have fewer than 120 employees, and we may encounter increasing difficulty in attracting enough qualified personnel as our operations expand and the demand for their services increases. This difficulty could impede the attainment of our research and development objectives and cause our business strategy to fail.

***Our Technology Development Center and our research and development laboratories are critical to our success.***

Our Technology Development Center in Godmanchester, England and our research and development laboratories are critical to our success. These facilities currently house our principal research, development, engineering and design operations. Our research and development activities involve the controlled use of a small amount of hazardous substances as well as other potentially harmful materials, waste and chemicals, which could cause interruption of our research and development efforts or injury to our employees, resulting in liabilities under federal, state, local or foreign laws or regulations governing the use, storage and disposal of these materials. While to date we have not had any issues relating to the use of hazardous materials, any event that causes a disruption of the operation of these facilities for even a relatively short period of time would adversely affect our ability to conduct research and development operations and to provide technical support for our licensees, which would negatively affect our revenues.

***If we acquire any companies or technologies in the future, they could prove difficult to integrate, disrupt our business, dilute stockholder value or have an adverse effect on our results of operations.***

We intend to expand our business primarily through internal growth, but from time to time we may consider strategic acquisitions. Any future acquisition would involve numerous risks including:

## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

potential disruption of our ongoing business and distraction of management;

difficulty integrating the operations and products of the acquired business;

unexpected expenses related to technology integration;



## **Table of Contents**

exposure to unknown liabilities, including litigation against the companies we may acquire;

additional costs due to differences in culture, geographic locations and duplication of key talent; and

potential loss of key employees or customers of the acquired company.

If we make acquisitions in the future, acquisition-related accounting charges may affect our balance sheet and results of operations. We may not be successful in addressing these risks or any other problems encountered in connection with any acquisitions.

### **Risks Relating to our Financial Results**

*Our operating results may have significant period-to-period fluctuations, which would make it difficult to predict our future performance.*

Due to the current stage of commercialization of our technology and the significant development and manufacturing objectives that we and our licensees must achieve to be successful, our quarterly operating results will be difficult to predict and may vary significantly from quarter to quarter.

We believe that period-to-period comparisons of our operating results are not a reliable indicator of our future performance at this time. Among other factors affecting our period-to-period results, our license fees often consist of large one-time payments in the period during which we enter into a new license, followed by smaller recurring payments in later periods, resulting in significant fluctuations in our revenues. If, in some future period, our operating results or business outlook fall below the expectations of securities analysts or investors, our stock price would be likely to decline and investors in our common stock may not be able to resell their shares at or above the initial public offering price. Broad market, industry and global economic factors may also materially reduce the market price of our common stock, regardless of our operating performance.

*The market price of our common stock may be highly volatile.*

The market price of our common stock has been highly volatile, as has been the case with the securities of many other emerging growth companies. Factors such as the following may have a significant impact on the market price of our common stock in the future:

our operating results and capital resources;

announcements by us or our competitors of technological developments, new product applications or license arrangements; and

other factors affecting the FPD and related industries in general.

In addition, the stock market in general has experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of companies like us.

*A few stockholders own significant amounts of our common stock. If the ownership of our common stock continues to be highly concentrated, it will prevent you and other stockholders from influencing significant corporate decisions.*

Affiliates of Kelso & Company, or Kelso, and affiliates of Hillman Capital Corporation, or Hillman Capital, beneficially own, respectively, approximately 44% and 22% of the outstanding shares of our common stock. They are also represented on our board. As a result, Kelso and Hillman Capital exercise significant control over matters requiring stockholder approval. The concentrated holdings of Kelso and Hillman Capital may result in the delay or deterrence of possible changes in control of our company, which may negatively impact the market price of our common stock. The interests of these and other of our existing stockholders may conflict with the interests of our other stockholders.

## **Table of Contents**

*Because we do not intend to pay dividends, stockholders will benefit from an investment in our common stock only if it appreciates in value.*

We have never declared or paid any cash dividends on our common stock. We currently intend to retain our future earnings, if any, to finance the operation and growth of our business and do not expect to pay any cash dividends in the foreseeable future. As a result, the success of an investment in our common stock will depend upon any future appreciation in its value. There is no guarantee that our common stock will appreciate in value or even maintain the price at which stockholders have purchased their shares.

*Our share price may decline due to the large number of shares eligible for future sale.*

Sales of substantial amounts of common stock, or the possibility of such sales, may adversely affect the price of our common stock and impede our ability to raise capital through the issuance of equity securities.

As of December 31, 2004, there were 19,485,483 shares of common stock outstanding. In addition, we may in the future issue additional shares of our common stock that might become freely salable, including shares that may be issued upon the exercise of warrants and options. The 2,500,000 shares of common stock which were sold in our initial public offering are freely transferable without restriction or further registration under the Securities Act of 1933. Of the remaining 16,985,483 shares of our outstanding common stock 16,630,602 shares, or approximately 98%, are currently restricted as a result of lock-up agreements with the underwriters or pursuant to similar restrictions in our registration rights agreement and option plans. However, the underwriters can release all or any portion of the shares subject to their lock-up agreements and allow stockholders to sell these shares at any time and without prior notice or announcement. Similarly, we can release the restrictions on share sales imposed by our registration rights agreements or our option plans. Immediately after the expiration of the lock-up period in these agreements, 2,459,785 shares will be freely tradeable pursuant to Rule 144(k) under the Securities Act and 16,985,483 shares will be eligible for resale under Rule 144, subject to the volume, manner of sale, holding period and other limitations of Rule 144.

In addition, stockholders currently representing all of the shares of our common stock have certain registration rights. We have filed a registration statement covering shares of our common stock issuable under our incentive plans. Once we register these shares, they can be freely tradeable, subject to the lock-up agreements.

The price of our common stock can be expected to decrease if we issue additional shares of our common stock that might be or become freely salable, including shares that would be issued pursuant to our plans and other agreements, or upon the exercise of warrants or options.

*We can issue shares of preferred stock that may adversely affect your rights as a shareholder of our common stock.*

Our certificate of incorporation authorizes us to issue up to 46,667 shares of preferred stock with designations, rights and preferences determined from time-to-time by our board of directors. Accordingly, our board of directors is empowered, without shareholder approval, to issue preferred stock with dividend, liquidation, conversion, voting or other rights superior to those of stockholders of our common stock. For example, an issuance of shares of preferred stock could:

## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

adversely affect the voting power of the stockholders of our common stock;

make it more difficult for a third party to gain control of us;

discourage bids for our common stock at a premium;

limit or eliminate any payments that the stockholders of our common stock could expect to receive upon our liquidation; or

otherwise adversely affect the market price of our common stock.

We may issue additional shares of authorized preferred stock at any time in the future.

## **Table of Contents**

### ***We are incurring increased costs as a result of being a public company.***

We are facing increased legal, accounting, administrative and other costs and expenses as a public company that we did not incur as a private company. The Sarbanes-Oxley Act of 2002, as well as new rules subsequently implemented by the SEC, the Public Company Accounting Oversight Board and the Nasdaq National Market require changes in the corporate governance practices of public companies. These new rules and regulations are resulting in both a significant initial cost, as we initiate certain internal controls and other procedures designed to comply with the requirements of the Sarbanes-Oxley Act, and in an ongoing increase in our legal, audit and financial compliance costs, which is diverting management attention from operations and strategic opportunities and to making legal, accounting and administrative activities more time-consuming and costly. We are incurring substantially higher costs to maintain directors and officers insurance. We currently expect increased annual costs following our initial public offering and we expect to incur additional costs during 2005 in implementing and verifying internal control procedures as required by section 404 of the Sarbanes-Oxley Act of 2002, and the rules and regulations thereunder, and in connection with preparing our financial statements on a timely basis to meet the SEC's requirements.

In addition, we are required under these new rules and regulations to attract and retain additional independent directors to serve on our board of directors. We may encounter difficulty in attracting qualified independent directors to serve on our board of directors and our audit committee, in particular, within the phase-in periods specified in these rules. If we fail to attract and retain independent directors within these phase-in periods, we may be subject to SEC enforcement proceedings and delisting by the Nasdaq National Market.

### ***Our certificate of incorporation, bylaws and Delaware law may discourage takeovers and business combinations that our stockholders might consider in their best interests.***

Provisions in our certificate of incorporation and by-laws may delay, defer, prevent or render more difficult a takeover attempt that our stockholders might consider in their best interests. These provisions may prevent our stockholders from receiving the benefit from any premium to the market price of our common stock offered by a bidder in a takeover context. Even in the absence of a takeover attempt, the existence of these provisions may adversely affect the prevailing market price of our common stock if they are viewed as discouraging takeover attempts in the future. See "Description of Capital Stock" for additional information on the anti-takeover measures applicable to us.

## **ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

A substantial majority of our licensing revenues are denominated in U.S. dollars. These licensing revenues include royalties based on revenues or production costs of our licensees that may be denominated in U.S. dollars or other currencies. Where such revenues or production costs of our licensees are denominated in other currencies, they are converted to U.S. dollars for the purpose of calculating any licensing royalties due to us. Our licensing royalty revenues may decrease as a result of any appreciation of the U.S. dollar against these other currencies.

The majority of our current expenditures are incurred in British pounds in order to fund our operations in the United Kingdom. If the U.S. dollar depreciates versus the British pound, additional U.S. dollars will be required to fund our operations in the United Kingdom. For example, a change in the U.S. dollar to British pound exchange rate from 1.8 to 1.9 would, at the current rate of expenditure, cost us approximately an additional \$1 million per year.

## **ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA**

## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

Our consolidated financial statements and the relevant notes to those statements are included in this Annual Report on Form 10-K beginning on page F-1.

**Table of Contents**

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

None.

**ITEM 9A. CONTROLS AND PROCEDURES**

(a) *Evaluation of disclosure controls and procedures.* We maintain disclosure controls and procedures, as such term is defined in Rule 13a-15(e) under the Exchange Act that are designed to ensure that information required to be disclosed by us in reports that we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in SEC rules and forms, and that such information is accumulated and communicated to our management, including our chief executive officer and vice-president, finance, as appropriate, to allow timely decisions regarding required disclosure. In designing and evaluating our disclosure controls and procedures, management recognized that disclosure controls and procedures, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the disclosure controls and procedures are met. Our disclosure controls and procedures have been designed to meet, and management believes that they meet, reasonable assurance standards. Additionally, in designing disclosure controls and procedures, our management necessarily was required to apply its judgment in evaluating the cost-benefit relationship of possible disclosure controls and procedures. The design of any disclosure controls and procedures also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions.

Based on their evaluation as of the end of the period covered by this Annual Report on Form 10-K, our chief executive officer and vice-president, finance, have concluded that, subject to the limitations noted above, our disclosure controls and procedures were effective to ensure that material information relating to us, including our consolidated subsidiaries, is made known to them by others within those entities.

(b) *Changes in internal control over financial reporting.* There was no change in our internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act) identified in connection with the evaluation described in Item 14(a) above that occurred during our last fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

**ITEM 9B. OTHER INFORMATION**

Not applicable.

**Table of Contents**

**PART III**

**ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT**

**Directors and Executive Officers**

The information required by this Item regarding our directors and executive officers is incorporated by reference to the information under the captions *Election of Directors* and *Information About Directors and Executive Officers* in our definitive proxy statement that we will file pursuant to Regulation 14A under the Exchange Act in connection with the 2005 annual meeting of our stockholders (the *Proxy Statement*).

**Audit Committee**

The information required by this Item regarding our audit committee and the audit committee financial expert is incorporated by reference to the information contained in the *Proxy Statement*.

**Section 16(a) Beneficial Ownership Reporting Compliance**

The information required by this Item regarding compliance with beneficial ownership reporting under Section 16(a) of the Exchange Act is incorporated by reference to the information under the captions *Section 16(a) Beneficial Ownership Reporting Compliance* in the *Proxy Statement*.

**Code of Ethics**

We have adopted a Code of Ethics that applies to our chief executive officer and senior financial officers, as required by the SEC, and is publicly available on our website at [www.cdtltd.co.uk](http://www.cdtltd.co.uk). If we make any amendments to the Code of Ethics or grant any waiver, including any implicit waiver, from a provision of our Code of Ethics to our chief executive officer and senior financial officers that requires disclosure under applicable SEC rules, we intend to disclose the nature of such amendment or waiver on our website.

**ITEM 11. EXECUTIVE COMPENSATION**

The information required by this item is incorporated by reference from the information under the captions *Election of Directors Compensation of Directors* and *Executive Compensation* and *Election of Directors Compensation of Directors* contained in the *Proxy Statement*.



**ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS**

The information required by this item is incorporated by reference from the information under the caption Security Ownership of Certain Beneficial Owners and Management contained in the Proxy Statement.

Information about securities authorized for issuance under our equity compensation plans appears under the caption Equity Compensation Plan Information in the Proxy Statement. That portion of the Proxy Statement is incorporated by reference into this Annual Report on Form 10-K.

**ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS**

The information required by this Item 13 is incorporated by reference from the information under the caption Certain Relationships and Related Transactions contained in the Proxy Statement.

**ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES**

The information required by this Item 14 is incorporated by reference from the information under the caption Principal Accounting Fees and Services contained in the Proxy Statement.

**Table of Contents****ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES**

(a) **1. Financial Statements.** The Financial statements filed as part of this Annual Report on Form 10-K are identified in the Index to Consolidated Financial Statements on page F-1.

**2. Financial Statements Schedules.** Schedules have been omitted because they are not applicable or required, or the information required to be set forth therein is included in the Consolidated Financial Statements or Notes thereto.

**3. Exhibits.** See Item 15(b) below.

(b) **Exhibits.** The following exhibits are filed herewith or are incorporated by reference to exhibits previously filed with the SEC. The Registrant shall furnish copies of exhibits for a reasonable fee (covering the expense of furnishing copies) upon request.

Exhibit Number	Description of Document
3.1	Second Amended and Restated Certificate of Incorporation of the Registrant (incorporated by reference to Exhibit 3.1 to Amendment No. 2 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
3.3	Amended and Restated By-Laws (incorporated by reference to Exhibit 3.3 to Amendment No. 2 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
4.1	Specimen certificate for common stock of the Registrant (incorporated by reference to Exhibit 4.1 to Amendment No. 5 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
4.2	Warrant, dated as of August 12, 2000, between CDT Acquisition Corp. and Heidrick & Struggles, Inc. (incorporated by reference to Exhibit 4.2 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.1	Letter Agreement, dated July 27, 1999, between Cambridge Display Technology Limited and Kelso & Company, L.P. (incorporated by reference to Exhibit 10.1 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.2	Letter Agreement, dated July 27, 1999, between Cambridge Display Technology Limited and Hillman Capital Corporation (incorporated by reference to Exhibit 10.2 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.3	Transaction Agreement, dated October 23, 2002, among CDT Acquisition Corp., Cambridge Display Technology Limited, Opsys Limited, Opsys UK Limited, the Warrantors, Opsys US Corporation and Opsys 2 Corporation (incorporated by reference to Exhibit 10.3 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.4	Agreement for the Sale and Purchase of Part of the Business of Opsys Limited, dated October 24, 2002, between Opsys UK Limited and Opsys Limited (incorporated by reference to Exhibit 10.4 to Amendment No. 5 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.5	Subscription and Exchange Agreement, dated October 25, 2002, between CDT Acquisition Corp. and Toppan Printing Co., Ltd. (incorporated by reference to Exhibit 10.5 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.6	Share Purchase Agreement, dated August 15, 2003, among CDT Acquisition Corp., Ulvac, Inc., Litrex Corporation and Cambridge Display Technology Limited (incorporated by reference to Exhibit 10.6 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.7	Joint Venture Agreement, dated August 15, 2003, among CDT Acquisition Corp., Ulvac, Inc., Litrex Corporation and Cambridge Display Technology Ltd. (incorporated by reference to Exhibit 10.7 to the Registrant's Registration Statement on

Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

Form S-1 (File No. 333-117824)

**Table of Contents**

<b>Exhibit Number</b>	<b>Description of Document</b>
10.8	Loan Facility Letter, dated July 1, 2004, between Cambridge Display Technology Limited and Lloyds Bank PLC (incorporated by reference to Exhibit 10.8 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.9	Reimbursement Agreement, dated July 1, 2004, between Cambridge Display Technology Limited and IPIFS Guarantee Corp. (incorporated by reference to Exhibit 10.9 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.10	Security Agreement, dated July 1, 2004, among Cambridge Display Technology Limited, CDT Oxford Limited and IPIFS Guarantee Corp. (incorporated by reference to Exhibit 10.10 to Amendment No. 5 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.11	Amended and Restated Registration Rights Agreement, dated December 22, 2004, among the Registrant, Kelso Investment Associates VI, L.P., KEP VI, LLC, Hillman Capital Corporation, Hillman CDT LLC, Hillman CDT 2000 LLC and certain employees minority stockholders of the Registrant and its subsidiaries (incorporated by reference to Exhibit 10.11 to Amendment No. 2 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.12	License Agreement, dated August 1, 1996, between Cambridge Display Technology, Ltd. and Philips Electronics N.V. (incorporated by reference to Exhibit 10.12 to Amendment No. 5 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.13	Cross License Agreement, dated November 25, 1999, between Cambridge Display Technology Limited and Seiko Epson Corporation (incorporated by reference to Exhibit 10.13 to Amendment No. 5 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.14	Side Letter, dated January 24, 2000, between Cambridge Display Technology Ltd. and Seiko Epson Corporation regarding the Cross License Agreement dated November 25, 1999 (incorporated by reference to Exhibit 10.14 to Amendment No. 5 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.14.1	Addendum Agreement, dated November 16, 2004, between Cambridge Display Technology Limited and Seiko Epson Corporation regarding the Cross License Agreement, dated November 25, 1999 (incorporated by reference to Exhibit 10.14.1 to Amendment No. 5 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.15	The New LEP Technology Agreement, dated January 1, 2001, between Cambridge Display Technology Limited and the University of Cambridge (incorporated by reference to Exhibit 10.15 to Amendment No. 5 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.16	Patent License, dated April 27, 2001, between Cambridge Display Technology Limited and OSRAM Opto Semiconductors GmbH & Co. OHG (incorporated by reference to Exhibit 10.16 to Amendment No. 5 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.17	License Agreement, dated August 13, 2001, between Cambridge Display Technology Limited and Sumitomo Chemical Co., Ltd. (incorporated by reference to Exhibit 10.17 to Amendment No. 5 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.18	Patent License of Displays and Display Illumination, dated October 16, 2001, between Cambridge Display Technology Limited, E.I. DuPont de Nemours and Company and Uniax Corporation (incorporated by reference to Exhibit 10.18 to Amendment No. 5 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.18.1	Materials Intellectual Property Agreement, dated November 13, 2001, between Cambridge Display Technology Limited and The Dow Chemical Company (incorporated by reference to Exhibit 10.18.1 to Amendment No. 6 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))

**Table of Contents**

<b>Exhibit Number</b>	<b>Description of Document</b>
10.19	Patent and Know-How License, dated December 14, 2001, between Cambridge Display Technology Limited and Covion Organic Semiconductors GmbH (incorporated by reference to Exhibit 10.19 to Amendment No. 5 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.20	Contract Research Agreement, dated December 14, 2001, between CDT International Limited and Covion Organic Semiconductors GmbH (incorporated by reference to Exhibit 10.20 to Amendment No. 5 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.21	License of Technology, dated January 21, 2002, between Opsys Limited (novated to CDT Oxford Limited by a Novation and Variation Agreement, dated October 22, 2002), University of Oxford, Isis Innovation Limited and University of St. Andrews (incorporated by reference to Exhibit 10.21 to Amendment No. 5 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.22	Option Agreement, dated December 1, 2003, between Cambridge Display Technology Limited, CDT Oxford Ltd. and Sumitomo Chemical Co., Ltd. (incorporated by reference to Exhibit 10.22 to Amendment No. 5 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.23	Patent and Co-Ownership Agreement, dated July 5, 2004, between CDT Oxford Limited and Isis Innovation Limited, The Chancellor, Masters and Scholars of the University of Oxford and the University Court of St. Andrews (incorporated by reference to Exhibit 10.23 to Amendment No. 5 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.24	Lease, dated March 29, 2001, between Scottish Widows PLC and Cambridge Display Technology Limited, of commercial premises at Unit 8 Cardinal Distribution Park, Godmanchester, Cambridge, England (incorporated by reference to Exhibit 10.24 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.25	Lease, dated March 29, 2001, between Scottish Widows PLC and Cambridge Display Technology Limited, of commercial premises at Unit 11 Cardinal Distribution Park, Godmanchester, Cambridge, England (incorporated by reference to Exhibit 10.25 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.26	Lease, dated March 29, 2001, between Scottish Widows PLC and Cambridge Display Technology Limited, of commercial premises at Unit 12 Cardinal Distribution Park, Godmanchester, Cambridge, England (incorporated by reference to Exhibit 10.26 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.27	Lease, dated June 11, 2004, between CGNU Life Assurance Limited and Cambridge Display Technology Limited, of commercial premises at 2020 Cambourne Business Park, Cambridge, England (incorporated by reference to Exhibit 10.27 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.28	Lease, dated June 27, 2000, between the University of Cambridge and Cambridge Display Technology Limited, of commercial premises at Greenwich House, Madingley Rise, Madingley Road, Cambridge, England (incorporated by reference to Exhibit 10.28 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.29(1)	Employment agreement with Dr. Fyfe, dated as of August 12, 2002 (incorporated by reference to Exhibit 10.29 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.29.1(1)	Amendment to employment agreement with Dr. Fyfe, dated as of August 31, 2004 (incorporated by reference to Exhibit 10.29.1 to Amendment No. 3 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.30(1)	Overseas benefit agreement with Dr. Fyfe, dated as of August 12, 2002 (incorporated by reference to Exhibit 10.30 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))

**Table of Contents**

<b>Exhibit Number</b>	<b>Description of Document</b>
10.31(1)	Employment agreement with Mr. Chandler, dated February 18, 2003 (incorporated by reference to Exhibit 10.31 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.32(1)	Employment agreement with Mr. Butcher, dated November 14, 2002 (incorporated by reference to Exhibit 10.32 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.33(1)	Employment agreement with Dr. Brown, dated March 28, 2002 (incorporated by reference to Exhibit 10.33 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.34(1)	Amendment to employment agreement with Dr. Brown, dated October 20, 2003 (incorporated by reference to Exhibit 10.34 to Amendment No. 2 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.35(1)	Employment agreement with Dr. Burroughes, dated July 1, 2004 (incorporated by reference to Exhibit 10.35 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.36(1)	Employment agreement with Dr. Cha, dated June 18, 2002 (incorporated by reference to Exhibit 10.36 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.37(1)	CDT Acquisition Corp. Amended and Restated Stock Incentive Plan (incorporated by reference to Exhibit 10.37 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.38(1)	Amendment to the CDT Acquisition Corp. Stock Incentive Plan, dated as of March 15, 2002 (incorporated by reference to Exhibit 10.38 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.39(1)	Amendment to the CDT Acquisition Corp. Stock Incentive Plan, dated as of October 17, 2002 (incorporated by reference to Exhibit 10.39 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.40(1)	Cambridge Display Technology, Inc. 2004 Stock Incentive Plan (incorporated by reference to Exhibit 10.40 to Amendment No. 5 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.40.1(1)	Cambridge Display Technology, Inc. 2004 Stock Incentive Plan Stock Option Agreement (incorporated by reference to Exhibit 10.40.1 to Amendment No. 5 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.40.2(1)	Cambridge Display Technology, Inc. 2004 Stock Incentive Plan Stock Option Agreement for the Grant of Inland Revenue Approved Options in the UK (incorporated by reference to Exhibit 10.40.2 to Amendment No. 5 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.40.3(1)	Cambridge Display Technology, Inc. 2004 Stock Incentive Plan Stock Option Agreement for the Grant of Unapproved Options in the UK (incorporated by reference to Exhibit 10.40.3 to Amendment No. 5 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.41(1)	Cambridge Display Technology, Inc. Annual Incentive Plan (incorporated by reference to Exhibit 10.41 to Amendment No. 2 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.42(1)	Cambridge Display Technology, Inc. Special Bonus Plan (incorporated by reference to Exhibit 10.42 to Amendment No. 5 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.42.1(1)	Special Bonus Plan Award Agreement with Dr. Fyfe, dated December 10, 2004 (incorporated by reference to Exhibit 10.42.1 to Amendment No. 5 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))

**Table of Contents**

Exhibit Number	Description of Document
10.43(1)	CDT Acquisition Corp. Nonqualified Stock Option Agreement between CDT Acquisition Corp. and the Employee (incorporated by reference to Exhibit 10.42 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.44	Agreement among the Registrant, Kelso Investment Associates VI, L.P., KEP VI, LLC, Hillman Capital Corporation, Hillman CDT LLC and Hillman CDT 2000 LLC relating to certain distributions (incorporated by reference to Exhibit 10.44 to Amendment No. 1 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.45	Amended and Restated Settlement and Amendment Agreement, dated as of December 14, 2004, among the Registrant, Cambridge Display Technology Limited, Opsys Limited, CDT Oxford Limited, Alexis Zervoglos, Michael Holmes, Opsys US Corporation, Opsys 2 Corporation and Opsys Management Limited (incorporated by reference to Exhibit 10.45 to Amendment No. 5 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.46	Amended and Restated Indemnification Agreement with Hermann Hauser, effective as of July 16, 2004 (incorporated by reference to Exhibit 10.46 to Amendment No. 5 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
10.47	Form of Indemnification Agreement for directors and officers of the Registrant (incorporated by reference to Exhibit 10.47 to Amendment No. 3 to the Registrant's Registration Statement on Form S-1 (File No. 333-117824))
21.1	List of Subsidiaries of the Registrant
23.1	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm
23.2	Consent of PricewaterhouseCoopers LLP, Independent Registered Public Accounting Firm
24.1	Powers of Attorney (see page 57 of this Form 10-K)
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. Section 1350)
31.2	Certification of Principal Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. Section 1350)
32.1(2)	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. Section 1350)
32.2(2)	Certification of Principal Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. Section 1350)

- (1) Indicates a management contract or compensatory plan or arrangement.
- (2) In accordance with Item 601(b)(32)(ii) of Regulation S-K and SEC Release Nos. 33-8238 and 34-47986, Final Rule: Management's Reports on Internal Control Over Financial Reporting and Certification of Disclosure in Exchange Act Periodic Reports, the material contained in Exhibit 32.1 and Exhibit 32.2 is furnished and not deemed filed with the SEC and is not to be incorporated by reference into any filing of the Registrant under the Securities Act of 1933 or the Securities Exchange Act of 1934, whether made before or after the date hereof and irrespective of any general incorporation language contained in such filing, except to the extent that the Registrant specifically incorporates it by reference.

(c) **Financial Statement Schedules.** Schedules have been omitted because they are not applicable or required, or the information required to be set forth therein is included in the Consolidated Financial Statements or Notes thereto.

**Table of Contents**

**SIGNATURES**

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

CAMBRIDGE DISPLAY TECHNOLOGY, INC.

By:                                  /s/ DAVID FYFE

**DAVID FYFE**

**Chief Executive Officer**

Date: March 31, 2005

**POWER OF ATTORNEY**

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints David Fyfe, Michael Black and Stephen Chandler and each of them, his true and lawful attorneys-in-fact, each with full power of substitution, for him or her in any and all capacities, to sign any amendments to this report on Form 10-K and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that each of said attorneys-in-fact or their substitute or substitutes may do or cause to be done by virtue hereof.

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

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>                                </u> /s/ DAVID FYFE _____ <b>David Fyfe</b>	Chief Executive Officer (Principal Executive Officer) and Director	March 31, 2005
<u>                                </u> /s/ MICHAEL BLACK _____ <b>Michael Black</b>	Vice-President, Finance (Principal Financial Officer and Principal Accounting Officer)	March 31, 2005
<u>                                </u> /s/ PHILIP BERNEY _____ <b>Philip Berney</b>	Director	March 31, 2005



Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

/s/ FRANK BYNUM	Director	March 31, 2005
<hr/>		
<b>Frank Bynum</b>		
/s/ GERALD HILLMAN	Director	March 31, 2005
<hr/>		
<b>Gerald Hillman</b>		
/s/ JAMES SANDRY	Director	March 31, 2005
<hr/>		
<b>James Sandry</b>		
/s/ JOSEPH CARR	Director	March 31, 2005
<hr/>		
<b>Joseph Carr</b>		

**Table of Contents**

**PART IV**

**INDEX TO CONSOLIDATED FINANCIAL STATEMENTS**

	<b>Page</b>
<b>Cambridge Display Technology, Inc. Consolidated Financial Statements Audited Financial Statements</b>	
<u>Report of Independent Registered Public Accounting Firm</u>	F-2
<u>Consolidated Balance Sheets As of December 31, 2003 and 2004</u>	F-3
<u>Consolidated Statements of Operations For the years ended December 31, 2002, 2003 and 2004</u>	F-4
<u>Consolidated Statements of Changes in Common Shareholders' Equity For the years ended December 31, 2002, 2003 and 2004</u>	F-5
<u>Consolidated Statements of Cash Flows For the years ended December 31, 2002, 2003 and 2004</u>	F-6
<u>Notes to Consolidated Financial Statements</u>	F-7
<b>Litrex Corporation</b>	
<u>Report of Independent Registered Public Accounting Firm</u>	F-31

F-1

**Table of Contents**

**Report of Independent Registered Public Accounting Firm**

Board of Directors and Shareholders

Cambridge Display Technology, Inc.

We have audited the accompanying consolidated balance sheets of Cambridge Display Technology, Inc. as of December 31, 2004 and 2003 and the related consolidated statements of operations, changes in common shareholders' equity and cash flows for each of the three years in the period ended December 31, 2004. 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 did not audit the 2003 financial statements of Litrex Corporation, a 50% joint venture, which statements reflect total assets constituting 4.4% as of December 31, 2003, and total revenues constituting 24% for the year then ended, of the related consolidated totals. Those statements were audited by other auditors whose report has been furnished to us, and our opinion, in so far as it relates to the amounts included for Litrex Corporation is based solely on the report of the other auditors.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. We were not engaged to perform an audit of the Company's internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purposes of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, based on our audits and the report of other auditors, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Cambridge Display Technology, Inc. at December 31, 2004 and 2003 and the consolidated results of their operations and their cash flows for each of the three years in the period ended December 31, 2004 in conformity with U. S. generally accepted accounting principles.

As further discussed in footnote 3, the Company adopted, effective January 1, 2004, FASB Interpretation 46(R) Consolidation of Variable Interest Entities, an interpretation of ARB No. 51 .

/s/ ERNST & YOUNG LLP

New York, NY

March 7, 2005



**Table of Contents****Cambridge Display Technology, Inc.****Consolidated Balance Sheets**

	December 31,	
	2004	2003
	<i>(in thousands, except for share information)</i>	
<b>Assets</b>		
Current assets:		
Cash and cash equivalents	\$ 26,892	\$ 10,400
Marketable securities	1,151	
Accounts receivable	1,458	1,433
Due from affiliates	107	2,603
Taxes receivable	3,984	2,313
Prepaid expenses and other current assets	6,903	2,553
Total current assets	40,495	19,302
Property, equipment and leasehold improvements, net	15,995	19,666
Investment in affiliates	2,574	10,180
Goodwill	65,612	58,735
Other intangible assets, net	4,477	5,987
Total assets	\$ 129,153	\$ 113,870
<b>Liabilities and shareholders equity</b>		
Current liabilities:		
Accounts payable and accrued expenses	\$ 8,604	\$ 4,222
Deferred revenue	6,936	948
Other current liabilities	109	
Total current liabilities	15,649	5,170
Deferred revenue	800	1,431
Deferred proceeds on sale of subsidiary stock	5,785	5,785
Other liabilities	480	229
Commitments and contingencies (Note 12)		
Series A redeemable convertible preferred stock, voting, \$0.01 par value, none and 6,000 authorized, issued and outstanding in 2004 and 2003, respectively		7,897
Series B redeemable convertible preferred stock, voting, \$0.01 par value none and 25,871 authorized, issued and outstanding in 2004 and 2003, respectively		30,590
Common shareholders equity:		
Preferred stock, voting, \$0.01 par value, 46,667 and 14,796 authorized, none and none issued and outstanding in 2004 and 2003, respectively		
Common stock, \$0.01 par value, 100,000,000 shares authorized, 19,485,483 and none issued and outstanding in 2004 and 2003, respectively	195	95

Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

Class A common stock, voting, \$0.01 par value, none and 27,000,000 shares authorized, none and 16,251,346 shares issued and outstanding in 2004 and 2003, respectively		
Class B common stock, nonvoting, \$0.01 par value none and 850,000 shares authorized none and 311,692 shares issued and outstanding in 2004 and 2003, respectively		2
Additional paid-in capital	273,079	185,448
Deferred compensation	(9,266)	(1)
Common stock subscribed	(3,163)	(3,163)
Accumulated other comprehensive loss	(514)	(506)
Accumulated deficit	(153,892)	(119,107)
	<u>          </u>	<u>          </u>
Total common shareholders' equity	106,439	62,768
	<u>          </u>	<u>          </u>
Total liabilities and shareholders' equity	\$ 129,153	\$ 113,870
	<u>          </u>	<u>          </u>

See accompanying notes.

F-3

**Table of Contents****Cambridge Display Technology, Inc.****Consolidated Statements of Operations**

	Year ended December 31		
	2004	2003	2002
	<i>(in thousands, except per share amounts)</i>		
Operating revenues:			
License fees and royalties	\$ 6,791	\$ 4,314	\$ 2,474
Other license related	900		
Technology services and development	4,982	3,758	727
Litrex revenue		2,608	3,852
Equipment and supplies	613		
	<u>13,286</u>	<u>10,680</u>	<u>7,053</u>
Total operating revenues			
Cost of sales:			
License fees and royalties	186	245	
Other license related	9		
Technology services and development	1,481	109	
Litrex revenue		1,173	1,792
Equipment and supplies	318		
	<u>1,994</u>	<u>1,527</u>	<u>1,792</u>
Total cost of sales			
Gross profit	<u>11,292</u>	<u>9,153</u>	<u>5,261</u>
Operating expenses:			
Research and development expenses	14,181	16,841	19,676
Selling, general and administrative expenses	18,751	12,769	16,903
Amortization of intangibles acquired	1,580	1,625	3,660
	<u>34,512</u>	<u>31,235</u>	<u>40,239</u>
Total operating expenses			
Loss from operations	(23,220)	(22,082)	(34,978)
Other income (expense):			
Equity in loss of CDT Oxford		(2,355)	(651)
Equity in loss of Arborescent	(85)		
Equity in loss of Litrex	(2,461)	(1,284)	
Foreign currency transaction gains	1,045	1,603	44
Other income	210		
Interest income	347	415	282
Interest expense	(36)	(6)	(10)
	<u>(980)</u>	<u>(1,627)</u>	<u>(335)</u>
Total other income (expense)			
Loss before benefit for income taxes	(24,200)	(23,709)	(35,313)
(Benefit) for income taxes	(1,615)	(932)	(3,595)

Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

Loss before cumulative effect of accounting change	(22,585)	(22,777)	(31,718)
Cumulative effect of accounting change	(12,200)		
Net loss	(34,785)	(22,777)	(31,718)
Accretion of preferred stock	(38,766)	(6,771)	(301)
Net loss attributable to common shareholders	<u>\$ (73,551)</u>	<u>\$ (29,548)</u>	<u>\$ (32,019)</u>
Net loss per common share attributable to common shareholders before cumulative effect of accounting change, basic and diluted	\$ (6.17)	\$ (3.04)	\$ (3.35)
Net loss per common share attributable to common shareholders, basic and diluted	<u>\$ (7.40)</u>	<u>\$ (3.04)</u>	<u>\$ (3.35)</u>
Weighted average number of common shares outstanding, basic and diluted	<u>9,944</u>	<u>9,705</u>	<u>9,565</u>

See accompanying notes.

F-4



**Table of Contents****Cambridge Display Technology, Inc.****Consolidated Statements of Changes in Common Shareholders Equity**

	Common Stock		Additional Paid-in Capital	Deferred Compensation	Common Stock Subscribed	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Shareholders Equity
	Class A & B							
	Outstanding Shares	Amount						
<i>(in thousands)</i>								
Balances at December 31, 2001	8,805	\$ 88	\$ 168,091	\$ (39)	\$ (3,163)	\$ (506)	\$ (64,612)	\$ 99,859
Issuance of common stock issued for cash (1)	1,160	12	31,703					31,715
Issued in exchange for Litrex stock	59	1	1,629					1,630
Issued in exchange for Opsys stock	109	1	2,999					3,000
Conversion of common into preferred stock	(362)	(4)	(9,996)					(10,000)
Stock options granted			116					116
Amortization of deferred compensation				19				19
Accretion of liquidation preference			(301)					(301)
Net loss and comprehensive loss							(31,718)	(31,718)
Balances at December 31, 2002	9,771	98	194,241	(20)	(3,163)	(506)	(96,330)	94,320
Issuance of common stock			6					6
Conversion of common into preferred stock	(79)	(1)	(2,186)					(2,187)
Stock options granted			158					158
Amortization of deferred compensation				19				19
Accretion of liquidation preference			(6,771)					(6,771)
Net loss and comprehensive loss							(22,777)	(22,777)
Balances at December 31, 2003	9,692	97	185,448	(1)	(3,163)	(506)	(119,107)	62,768
Issuance of common stock in IPO	2,500	25	24,980					25,005
Issuance of common stock in exchange for Opsys Stock	817	8	9,801					9,809
Accretion of liquidation preference			(38,766)					(38,766)
Special bonus plan awards			14,400	(14,400)				
Conversion of Series A and Series B preferred stock into common stock	6,476	65	77,188					77,253
Stock options granted			28					28
Amortization of deferred compensation				1				1
Amortization of special bonus plan				5,134				5,134
Net loss							(34,785)	(34,785)
Other comprehensive loss:								
Unrealized loss on available for sale securities						(8)		(8)
Total comprehensive loss for 2004								\$ (34,793)
Balances at December 31, 2004	19,485	\$ 195	\$ 273,079	(9,266)	(3,163)	(514)	(153,892)	\$ 106,439

## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

---

(1) 31% of common stock issued for cash consideration in 2002 was issued to Kelso, 38% to Hillman Capital and 31% to a third party investor.

See accompanying notes.

F-5

**Table of Contents****Cambridge Display Technology, Inc.****Consolidated Statements of Cash Flows**

	Year ended December 31,		
	2004	2003	2002
	<i>(in thousands)</i>		
<b>Operating activities</b>			
Net loss	\$ (34,785)	\$ (22,777)	\$ (31,718)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization of property, equipment, leasehold improvements and demo machines	6,007	6,334	3,998
Loss on sale of property, equipment and leasehold improvements	132	74	
Amortization of other intangible assets	1,580	1,625	3,660
Acquired in process R&D	12,200		
Amortization of deferred compensation	5,135	19	19
Equity in loss of CDT Oxford		2,355	651
Equity in loss of Arborescent	85		
Equity in loss of Litrex	2,461	1,284	
Stock options granted	28	158	116
Other	(30)		
Write-off of other intangible assets			927
Changes in operating assets and liabilities:			
Accounts and tax receivable	(1,651)	(2,229)	(1,548)
Due from affiliates	21	(2,302)	(292)
Inventories and demo machines		(511)	(2,710)
Prepaid expenses and other current assets	(3,979)	110	(108)
Accounts payable and accrued expenses	2,399	(1,238)	(271)
Deferred revenue	4,014	2,579	68
Other current and non-current liabilities	251	383	(1,625)
<b>Net cash used in operating activities</b>	<b>(6,132)</b>	<b>(14,136)</b>	<b>(28,833)</b>
<b>Investing activities</b>			
Acquisition of property, equipment and leasehold improvements	(2,410)	(3,601)	(4,388)
Disposal of property, equipment and leasehold improvements	13	68	
Acquisition of other intangible assets		(100)	
Costs related to acquisition of CDT Oxford	(334)		
Investment in affiliates	(85)	(128)	(5,038)
Investment in marketable securities	(1,129)		
Disposal of business		12,091	
Cash of consolidated equity CDT Oxford	1,564		
<b>Net cash (used in) provided by investing activities</b>	<b>(2,381)</b>	<b>8,330</b>	<b>(9,426)</b>
<b>Financing activities</b>			
Change in restricted cash		127	136
Repayment of loan payable		(127)	(495)
Issuance of common stock	25,005	6	31,715
Issuance of redeemable convertible preferred stock		4,228	15,000
<b>Net cash provided by financing activities</b>	<b>25,005</b>	<b>4,234</b>	<b>46,356</b>

Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

Net increase (decrease) in cash and cash equivalents	16,492	(1,572)	8,097
Cash and cash equivalents beginning of year	10,400	11,972	3,875
Cash and cash equivalents end of year	\$ 26,892	\$ 10,400	\$ 11,972
<b>Supplemental disclosures of cash flow information</b>			
Interest paid	\$ (36)	\$ 6	\$ 10
Taxes Paid	\$ 18		
<b>Supplemental disclosure of non-cash investing and financing activities</b>			
Issuance of stock for acquisition of Opsys Limited	\$ 9,809	\$	\$

See accompanying notes.

F-6

**Table of Contents**

**Cambridge Display Technology, Inc.**

**Notes to Consolidated Financial Statements**

**All amounts in thousands except for per share amounts.**

**1. Organization and Description of Business**

Cambridge Display Technology, Inc. (the Company), a U.S. based corporation, incorporated in the state of Delaware, was formed in 1999 to acquire all of the common stock of CDT Holdings Plc (Holdings, a company organized under the laws of the United Kingdom) (the acquisition). Holdings in turn, is the parent of Cambridge Display Technology Limited (Limited) and CDT Licensing Limited (Licensing), both United Kingdom companies. This acquisition was accounted for as a purchase. Holdings, Limited and Licensing are hereinafter collectively referred to as the U.K. Subsidiaries. In 2001, the Company formed CDT International Limited (CDT International, a Bermuda based company) to hold certain intellectual property and investments. During 2003, the assets of CDT International were sold to other companies in the group and CDT International was put into solvent liquidation. The liquidation of CDT International was completed in January 2004.

In 2001, CDT International acquired a controlling (86%) interest in Litrex Corporation (Litrex, a California based company). In 2002, the Company acquired the remaining 14% ownership in Litrex. In August 2003, a 50% interest in Litrex was sold, as described in Note 3. In October 2002, the Company acquired a 16% equity interest and full management control of Opsys (UK) Limited, which was subsequently renamed CDT Oxford Limited (CDT Oxford). It acquired 100% of the parent company of CDT Oxford, Opsys Limited, in December 2004.

In July 2004, the Company formally changed its name to Cambridge Display Technology, Inc. from CDT Acquisition Corp.

In December 2004 the Company concluded an initial public offering for its common stock on the Nasdaq National Market.

The Company is principally involved in the development and commercialization of Polymer Organic Light Emitting Diode (P-OLED) intellectual property and technology, an advanced display technology for which it holds worldwide fundamental patents. Litrex is a designer and integrator of ink jet printing solutions for P-OLED printing. CDT Oxford is principally involved in research and development of light emitting dendrimer materials and hybrid P-OLED materials.

**2. Significant Accounting Policies**

*Basis of Presentation*

## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

The accompanying consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries after elimination of all significant intercompany balances and transactions. The results of Litrex are fully consolidated into the Company's financial statements through August 14, 2003. Subsequent to that date, the Company's 50% share of the net earnings of Litrex has been accounted for using the equity method. The Company also held a 16% interest in CDT Oxford until December 2004, but, because it was responsible for funding 100% of the losses of CDT Oxford and had an entitlement to 98% of any profits as a management fee, the Company accounted for 100% of that company's net earnings in a manner similar to the equity method up until December 2003. From January 2004, the company adopted FIN 46(R) and judged that CDT Oxford was a variable interest entity and therefore consolidated it from that date. The Company acquired the remaining 84% equity interest in CDT Oxford in December 2004 as described in Note 3 below.

The Company's operations are subject to certain risks and uncertainties. These risks include, but are not limited to, the Company's ability to meet obligations, continuing losses and negative cash flows and funding expansion of the Company's operations.

F-7

**Table of Contents**

**Cambridge Display Technology, Inc.**

**Notes to Consolidated Financial Statements (Continued)**

**All amounts in thousands except for per share amounts.**

*Reclassifications*

Certain amounts in the 2003 and 2002 statements of operations have been reclassified to conform with the current year presentation.

*Reverse Stock Split*

On December 15, 2004, the Company executed a 0.5851807 for-one reverse stock split in connection with its initial public offering. All share and per-share information included in the accompanying consolidated financial statements and related disclosures for all periods presented have been retroactively adjusted to reflect the stock split.

*Foreign Currencies*

The functional and reporting currency of the Company is the U.S. dollar. The Company routinely enters into transactions denominated in currencies other than its functional currency, primarily the British Pound. Changes in currency exchange rates between the Company's functional currency and the currency in which a transaction is denominated are included in the Company's results of operations as other income (expense) in the period in which the currency exchange rates change.

*Cash and Cash Equivalents*

The Company considers all highly liquid investments purchased with an original maturity at acquisition of three months or less to be cash equivalents. Cash equivalents primarily consist of investment grade commercial paper, which are short term in nature and therefore bear minimal risk.

*Property, Equipment and Leasehold Improvements*

## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

Property, equipment and leasehold improvements which are held for use, are stated at cost. Depreciation is computed using the straight-line method, based on the shorter of the estimated useful lives, generally ranging from three to five years, or the lease term of the respective assets. The Company, fully depreciates any remaining net asset balance at the point it determines that such assets will be of no further use. If the Company determines that the useful life of any asset is less than the remaining depreciable life, it reduces the remaining depreciable life accordingly and accelerates the depreciation of the remaining net asset balance. To date, the Company has not accelerated the depreciation of any asset.

### *Goodwill*

The Company accounts for goodwill in accordance with Statement of Financial Accounting Standards ( SFAS ) No. 142, *Goodwill and Other Intangible Assets*. SFAS No. 142 requires that goodwill acquired in a business combination be capitalized at acquisition cost and requires that goodwill no longer be amortized into earnings. On an annual basis, the Company is required to evaluate the carrying value of goodwill at the reporting unit level for impairment using a two step impairment test. The Company currently has one reporting unit. Prior to August 2003, the Company had two operating units: CDT, which developed, licensed and commercialized P-OLED technology, and Litrex, which developed ink jet printing. After the sale of 50% of Litrex (and considering the Company s planned sale of the remaining 50% in 2005 see Note 3) the Company believes that it has one reporting unit, CDT.

During the fourth quarters of 2004, 2003 and 2002, the Company completed its annual impairment tests of goodwill and determined that its reported goodwill was not impaired. Such impairment tests are based upon



**Table of Contents****Cambridge Display Technology, Inc.****Notes to Consolidated Financial Statements (Continued)****All amounts in thousands except for per share amounts.**

projections of future royalty and license revenue at levels significantly greater than historically achieved. As adoption of the Company's technology is just now beginning to occur in commercial amounts, such projections have a high degree of uncertainty.

<b>Movement in Goodwill</b>	<b>CDT</b>	<b>Litrex</b>	<b>Oxford</b>	<b>Total</b>
Balance at December 31, 2001	\$ 58,735	\$ 9,233	\$	\$ 67,968
Litrex acquisition 14%		1,618		1,618
Balance at December 31, 2002	58,735	10,851		69,586
Litrex 50% sale		(10,851)		(10,851)
Balance at December 31, 2003	58,735			58,735
Consolidation of CDT Oxford effective January 1, 2004			14,092	14,092
Reduction due to final purchase price settlement (see Note 3)			(7,215)	(7,215)
Balance at December 31, 2004	\$ 58,735	\$	\$ 6,877	\$ 65,612

The Company sold 50% of its equity in Litrex in August 2003. As a result, Litrex ceased to be a consolidated subsidiary and, therefore, goodwill related to Litrex was eliminated from the Company's consolidated goodwill. The goodwill was included in the total net book value of Litrex which was removed as a result of the sale and was considered in determining the Company's deferred gain (see Note 3).

*Other Intangible Assets*

Other intangible assets, which primarily relate to intellectual property rights and know-how, are amortized on a straight-line basis over their estimated useful life of five to ten years. The Company has no indefinite lived intangible assets other than goodwill. The Company's management believes the net intangible asset balance is recoverable for all periods presented in the accompanying consolidated financial statements. Amortization expense for the next five years is expected to be as follows:

<b>Year ending December 31:</b>	
2005	\$ 1,580
2006	1,413
2007	580

2008	577
2009	327

*Long Lived Assets*

Long lived assets, including other intangible assets and property, equipment and leasehold improvements are subject to review for impairment in the event that circumstances indicate recorded amounts may not be recoverable. While the Company has reported losses, it expects that its future licensing and royalties will enable recovery of such asset values.

*Revenue Recognition and Deferred Revenue*

The Company's revenues are derived from license fees and royalties due under license agreements, payments due under various technology development agreements, sales of our own equipment and sales of equipment and services by Litrex through August 2003. Non-refundable license fees are recognized when they fall due and when collection can be reasonably assured, providing that the license has been delivered and where we have no ongoing obligations under that license. Once a license has been delivered, royalties are recorded as revenue when they become receivable and collection is reasonably assured. Where an extended obligation does exist, upfront license fees are amortized, generally on a straight-line basis, over the period of that obligation.

**Table of Contents**

**Cambridge Display Technology, Inc.**

**Notes to Consolidated Financial Statements (Continued)**

**All amounts in thousands except for per share amounts.**

Revenues for arrangements that provide for the provision of technology development services are recognized as those services are delivered and revenue for transfers of know-how once the corresponding documentation or electronic records have been delivered. The Company routinely enters into technology services and development contracts which involve multiple elements including (i) the provision of services, (ii) the transfer of know-how or (iii) the supply of equipment. The Company recognizes revenue on a straight line basis over the duration of arrangements that involve the delivery of multiple elements where no individual element qualifies as a separate unit of accounting.

In 2004, the Company reported other license related revenues, which related to the re-sale by the Company to a third party of certain rights to intellectual property that the Company had previously acquired from that third party.

Where revenue arrangements require the Company to provide a specified amount of support after the end of the term of the contract, the fair value of this post-contract support is deferred until either the support is delivered or the obligation to provide the support expires. The Company determines the fair value of such post-contract support based on the rate the Company charges third parties for similar services sold on a stand alone basis.

Under equipment supply contracts, revenue is recognized after customer acceptance has been received, any final payment has been invoiced and collectibility is reasonably assured.

When contracts involve the Company devoting research effort to projects, revenue under these contracts is recognized over the life of the contract on a straight-line basis as the associated costs are relatively consistent from period to period.

Where payments under either licenses or technology services and development contracts fall due prior to revenue being recognized, the Company reports the balance of amounts which have been invoiced but are not recognizable as deferred revenue in the liabilities section of consolidated balance sheet. Deferred revenue is classified as current if is expected to be recognized within one year and non-current if is expected to be recognized after more than one year, or if the timing of recognition is not known.

*Research and Development*

Research and development costs are expensed as incurred.

*Income Taxes*

Taxes are provided using the liability method on all differences between book and tax bases of assets and liabilities calculated at the rate at which it is anticipated that timing differences will reverse. Given the history of losses of the Company, 100% valuation allowances are provided with respect to loss and other carry forwards and no net deferred tax assets have been recognized in the Company's consolidated balance sheets.

*Comprehensive Loss*

Comprehensive income encompasses all changes in shareholders' equity (except those arising from transactions with owners) and includes the Company's net loss, net unrealized gains or losses on available for sale securities.

**Table of Contents****Cambridge Display Technology, Inc.****Notes to Consolidated Financial Statements (Continued)****All amounts in thousands except for per share amounts.***Net Loss Per Common Share*

The Company reports both basic net loss per common share, which is based on the weighted average number of common shares outstanding, excluding contingently issuable shares, and diluted net loss per share, which is based on the weighted average number of common shares outstanding and dilutive potential common shares outstanding. However, since the Company reported losses in each year presented, the effect of including options and other contingently issuable shares would be anti-dilutive. Accordingly, basic and diluted loss per share are the same.

*Business Concentrations*

The Company's customers are located principally in Europe, the United States and Asia. A breakdown of the Company's revenues on a geographic basis is as follows:

<b>Revenues by Geographic Region</b>	<b>2004</b>	<b>2003</b>	<b>2002</b>
United Kingdom	\$ 2,143	\$ 527	\$ 2,673
Other European	2,065	650	1,102
United States	1,626	4,042	2,235
Other North American	500	0	0
Japan	5,196	4,314	616
Other Asia Pacific	1,756	1,147	427
<b>Total revenues</b>	<b>\$ 13,286</b>	<b>\$ 10,680</b>	<b>\$ 7,053</b>

The basis for attributing revenues from external customers to individual countries is the address of the party with whom the Company contracts. All long-lived tangible assets of the company are located in the U.K.

For the year ended December 31, 2004, there were four customers that accounted for 58% of the Company's revenues. For the years ended December 31, 2003 and 2002 there were two customers that accounted for 48% and 40% of the Company's revenues, respectively.

*Stock-Based Compensation*

The Company follows Accounting Principles Board Opinion No. 25, *Accounting for Stock Issued to Employees* ( APB 25 ), and related interpretations in accounting for stock options awarded to employees. Accordingly, other than certain grants at less than fair value, the Company has recognized no compensation expense with respect to options granted to employees. Had compensation cost been determined based upon the fair value at grant date for awards consistent with the methodology prescribed by SFAS No. 123 *Accounting for Stock-Based Compensation*, ( SFAS 123 ) as amended, the Company's net loss for years ended December 31, 2004, 2003 and 2002 would have been the pro forma amounts indicated below:

	<u>2004</u>	<u>2003</u>	<u>2002</u>
Net loss as reported	\$ (34,785)	\$ (22,777)	(31,718)
Less: accretion of preferred stock	(38,766)	(6,771)	(301)
Add back: APB 25 cost	5,135	19	19
Less: total stock-based employee compensation expense under the fair value method	(5,730)	(823)	(1,249)
Net loss attributable to common shareholders pro forma	<u>(74,146)</u>	<u>(30,352)</u>	<u>(33,249)</u>
Net loss per share:			
Basic and diluted as reported	<u>(7.40)</u>	<u>(3.04)</u>	<u>(3.35)</u>
Basic and diluted pro forma	<u>(7.46)</u>	<u>(3.13)</u>	<u>(3.48)</u>

**Table of Contents****Cambridge Display Technology, Inc.****Notes to Consolidated Financial Statements (Continued)****All amounts in thousands except for per share amounts.**

The fair value of these options was estimated at the date of grant using the Black-Scholes option pricing model using assumptions for the risk-free interest rate, volatility factor and expected life as detailed in the table below. The volatility factor for options issued prior to the Company's initial public offering was based on the volatility of the Company stock price as measured using the prices at which stock was bought while the Company remained private. The volatility factor used for options issued on or after the Company's initial public offering was based on fluctuations in the stock price of comparable public companies.

<b>Options Issued in:</b>	<b>2002</b>	<b>2003</b>	<b>2004 (pre-IPO)</b>	<b>2004 (post-IPO)</b>
<b>Black-Scholes Assumptions:</b>				
Risk Free Interest Rate	3.00%	4.25%	4.25%	3.31%
Volatility Factor	17.8%	15.7%	15.3%	74.8%
Expected Life	4 Years	4 Years	4 Years	4 Years
Dividend Yield	Zero	Zero	Zero	Zero

As any options granted in the future will also be subject to the fair value pro forma calculations, the pro forma results for fiscal years 2004, 2003 and 2002 may not be indicative of future years.

The weighted average fair value of options, calculated using the Black-Scholes option pricing model, granted during 2004 with the market price equal to the exercise price, is \$6.19 (\$5.76 in 2003, \$5.43 in 2002). The weighted-average remaining contractual life of all outstanding options is 6.7 years (7.3 years in 2003, 8.1 years in 2002).

The Company expenses, the fair value at the time of issue of the restricted stock units which were issued in December 2004 under the terms of its Special Bonus Plan, over the vesting period of those units on a fixed accounting basis. The Company accrues for the UK national insurance tax liability associated with those restricted stock units over the same vesting period, but adjusts the accrual each quarter to take account of fluctuations in the Company's stock price and any changes in the UK national insurance percentage rate.

*Forward contracts*

We enter into forward foreign currency contracts to purchase and sell U.S., European and Asian currencies to reduce exposures to foreign currency risks. The forward exchange contracts generally have maturities that do not exceed 12 months and require us to exchange at maturity

## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

European or Asian currencies for U.S. dollars and pound sterling, or vice versa, at rates agreed to at the inception of the contracts.

At December 31, 2004 and 2003, we had approximately \$20 million and nil, respectively, of forward exchange contracts outstanding. These foreign exchange contracts outstanding at December 31, 2004 were not designated as hedging instruments. For these derivatives, gains and losses were recognized immediately in earnings during the period of change and a gain of \$210 is included in other income in our consolidated statements of operations for the year ended December 31, 2004.

At December 31, 2004, the fair value of these contracts in gain (i.e.asset) positions was \$210. These fair values were determined based upon current forward rates applicable to the remaining terms of the forward contracts as of December 31, 2004. The fair value of contracts in asset positions is included as a component of Prepaid expenses and other current assets, on our Consolidated Balance Sheet.

F-12



**Table of Contents**

**Cambridge Display Technology, Inc.**

**Notes to Consolidated Financial Statements (Continued)**

**All amounts in thousands except for per share amounts.**

*Marketable Securities*

The Company records its investment in marketable equity securities in accordance with SFAS No. 115, Accounting for Certain Investments in Debt and Equity Securities, and determines the appropriate classification of its securities at the time of purchase. At December 31, 2004, all marketable equity securities are classified as available-for-sale and are carried at fair value, with the unrealized gains reported as a separate component of stockholders' equity. Realized gains and losses are reflected in income. The cost of securities sold is based on the specific-identification method.

*Fair Values of Financial Instruments Other than Derivatives*

The Company's financial instruments consist primarily of cash and cash equivalents, marketable securities, accounts receivable, accounts payable and accrued liabilities. Marketable securities are accounted for at fair value using quoted market prices for those securities. All other financial instruments are accounted for on a historical cost basis, which due to the nature of these instruments approximates fair value at the balance sheet dates.

*Use of Estimates*

The preparation of the consolidated financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Actual results could differ from those estimates.

*Recent Accounting Pronouncements*

In December 2004, the FASB issued SFAS No. 123 (revised 2004), Share-Based Payment (SFAS No. 123R), which replaces SFAS 123, and supercedes APB 25., SFAS No. 123R requires all share-based payments to employees, including grants of employee stock options, to be recognized in the financial statements based on their fair values, beginning with the first interim or annual period after June 15, 2005, with early adoption encouraged. In addition, SFAS No. 123R will cause unrecognized expense (based on the amounts in our pro forma footnote disclosure) related to options vesting after the date of initial adoption to be recognized as a charge to results of operations over the remaining vesting period. The Company is evaluating the requirements of SFAS No. 123R and we have not yet determined the method of adoption or the effect that

## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

adopting SFAS No. 123R will have on our consolidated financial statements. However, the effect of adopting SFAS 123R will be to increase our recorded stock compensation expense.

In December 2004 the FASB issued SFAS 153, Exchanges of Nonmonetary Assets, an amendment of APB Opinion No. 29, Accounting for Nonmonetary Transactions ( SFAS 153 ). The amendments made by SFAS 153 are based on the principle that exchanges of nonmonetary assets should be based on the fair value of the assets exchanged. Further, the amendments eliminate the narrow exception for nonmonetary exchanges of similar productive assets and replace it with a general exception for exchanges of nonmonetary assets that do not have commercial substance. The statement is effective for nonmonetary asset exchanges occurring in fiscal periods beginning after June 15, 2005 with earlier adoption permitted. The provisions of this statement shall be applied prospectively. The Company's adoption of SFAS 153 is not expected to have a material impact on the Company's consolidated results of operations, financial position or cash flows.

F-13

**Table of Contents****Cambridge Display Technology, Inc.****Notes to Consolidated Financial Statements (Continued)****All amounts in thousands except for per share amounts.****3. Acquisitions and Disposals***CDT Oxford*

On October 23, 2002, the Company purchased a 16% interest in Opsys UK Limited ( Opsys UK ) for \$2,500. At the same time, Limited purchased a \$2,000 license from Opsys Limited ( Opsys ), the parent of Opsys UK. As part of the Transaction Agreement, effective from the date of the Agreement, the Company shall on an exclusive and irrevocable basis, manage the assets and business of Opsys UK. Due to this, all of the books and records of Opsys UK are maintained by the Company. The Company is entitled to an annual management fee equal to 98% of all pre-tax profits earned, if any, by Opsys UK. The Company and Limited are responsible for all liabilities arising from the management of Opsys UK, including funding of any losses incurred. Later in 2002, Opsys UK was renamed CDT Oxford Limited ( CDT Oxford ). The Company accounted for CDT Oxford in a manner similar to the equity method.

In December 2003, the FASB issued FIN No. 46(R), *Consolidation of Variable Interest Entities*, which supersedes FIN No. 46 issued in January 2003. FIN No. 46(R) clarifies the certain aspects of consolidation accounting. This Interpretation requires variable interest entities to be consolidated if the equity investment at risk is not sufficient to permit an entity to finance its activities without support from other parties or the equity investors lack specified characteristics. The Company has adopted this interpretation effective January 1, 2004, and, since the equity in CDT Oxford is not sufficient to permit it to finance its activities without outside support, this has resulted in the Company consolidating CDT Oxford. This has had no impact on the net loss within the consolidated statement of operations, since the Company has previously included 100% of the operating loss in its results of operations, but has resulted in the Company's consolidated balance sheet including the assets and liabilities of CDT Oxford. The following represents the amounts consolidated as of January 1, 2004:

Cash and cash equivalents	\$ 1,564
Accounts receivable	485
Equipment and leasehold improvements, net	69
Goodwill	14,092
Accounts payable and accrued expenses	(4,522)
	<hr/>
Net assets	\$ 11,688
	<hr/>

In-process research and development has been accounted for as the cumulative effect of an accounting change upon adoption of FIN 46 (R). In valuing the in-process research and development, an income approach was adopted. The Company measured the present value of future economic benefits over the remaining economic life of the acquired assets and discounted using a risk-adjusted discount rate of 25%. This rate was selected by taking into account time-value of money, inflation, forecast risk and the risk inherent in ownership of the subject assets. The

## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

Company considered the acquired assets to constitute a single research program into dendrimer technology. Since the Company believed that the benefit of acquiring this technology will come from combining it with its existing technology, the Company projected future cash flows for its entire business and made a judgment as to the proportion of such revenues which would be attributable to the acquired technology. The Company projected that materials containing this technology would be initially commercialized in 2007.

For the purpose of consolidation, the original acquisition of CDT Oxford has been accounted for as a purchase, and the purchase price (including the value of the shares to be issued to the former owners) has been allocated to the acquired assets and liabilities as follows:

Net assets at date of acquisition (October 22, 2002)	\$ 602
In-process research and development	12,200
Goodwill	14,092
	<hr/>
Purchase price	\$ 26,894
	<hr/>

F-14

---

**Table of Contents**

**Cambridge Display Technology, Inc.**

**Notes to Consolidated Financial Statements (Continued)**

**All amounts in thousands except for per share amounts.**

As part of the Transaction Agreement, Opsys granted a call option for the Company and the Company granted a put option to Opsys, upon the exercise of which, the Company would purchase and Opsys would sell all of the remaining 840 shares of CDT Oxford outstanding not already owned by the Company. In further consideration for the grant of the call option, the Company paid an option price of \$500 in cash to Opsys. The put option may be exercised by Opsys by 60 days prior written notice to the Company at any time following the completion of the Transaction Agreement. The call option shall be automatically exercised by the Company immediately prior to an Insolvency Event, as defined, of Opsys, or by giving 90 days written notice to Opsys for any of the following circumstances: (a) an initial public offering of the Company, (b) at any time on or after the sixth anniversary of the Transaction Agreement, (c) if there is a Sale, as defined, of the Company, where the consideration on sale payable to Opsys thereunder will be liquid or a sufficient proportion will be liquid to allow Opsys to pay the Section 179 Charge payable, or (d) if the Section 179 Charge becomes payable by CDT Oxford, where the Section 179 Charge is defined as a tax liability arising under Section 179 of the Taxation of Chargeable Gains Act of 1992, a tax provision in the United Kingdom. All options that are exercised were to have been settled with a maximum of 679 shares of Class A Common Stock at a deemed value of \$27.60 per share.

As part of the transaction, the Company granted Opsys a put option, the exercise of which would have required the Company to acquire all of the outstanding stock of Opsys in exchange for the 679 shares of the Company's Class A common stock. Opsys may exercise this option if it can establish that its aggregate liabilities do not exceed \$1.25 million and the shares of Opsys UK comprise the only material assets of Opsys. The shares to be issued in consideration will be reduced on a pro rata basis to the extent that Opsys has liabilities up to \$1.25 million, at a deemed price for the purpose of calculating such reduction of \$27.60 per share.

As part of the Opsys transaction, Toppan Printing Company (Toppan) of Japan, a key partner of Opsys, invested \$5,000 in the Company by purchasing 181 shares of Class A Common Stock. As a condition of this investment, Toppan was also issued an additional 109 shares of Class A Common Stock in exchange for shares held by them in Opsys. Pursuant to the Company's agreement with Opsys, these shares in Opsys were immediately sold to an employee of Opsys for a nominal sum. The Company accounted for the value of the shares issued to Toppan in exchange for the Opsys shares as part of the cost of investment in Opsys and included the \$3,000 value of these shares in the line Investment in affiliates on the balance sheet at December 31, 2003. The Company used the \$5,000 cash received from Toppan to pay for the license (\$2,000), the option (\$500) and the purchase of its 16% interest in Opsys UK stock (\$2,500).

In addition to the costs noted above, in 2002 the Company paid \$900 to Opsys to enable them to settle outstanding liabilities and \$1,138 in transactions costs. In 2003, the Company paid a further \$128 in transaction costs. The transactions described above were all inter-related. The Company included within Investment in Affiliates \$8,038 on its December 31, 2002 balance sheet, comprised of the purchase price of the 16% interest in Opsys UK equity (\$2,500), the option price (\$500), the issuance of stock to Toppan in exchange for Opsys stock (\$3,000), the settlement of Opsys liabilities (\$900) and the transaction costs (\$1,138).

The \$2 million license was acquired in order to secure for the Company the right to use, but not to sub-license, Opsys's patents. This license would have had value in the event that Opsys had failed to obtain consent from certain third parties to transfer rights to those patents, including sub-licensing rights, to Opsys UK, as it was obligated to do under the Transaction Agreement. Opsys did fulfill this obligation as a result of which the Company then deemed that the license no longer had any value and wrote it off in 2002.

## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

The terms of the Transaction Agreement were entered into by the Company so that it could gain control of and economic interest in the UK assets and operations of Opsys (which had been transferred to Opsys UK immediately prior to the transaction) in such a manner to avoid acquiring any interest in any other assets or liabilities of Opsys.

F-15

**Table of Contents****Cambridge Display Technology, Inc.****Notes to Consolidated Financial Statements (Continued)****All amounts in thousands except for per share amounts.**

Subsequent to the Company's original agreement with Opsys in October 2002, certain disputes arose with Opsys which were settled by a Settlement and Amendment Agreement, pursuant to which the Company acquired 100% of the shares of Opsys Limited in December 2004 for the issue of 798 shares of its common stock. At the time of this acquisition, Opsys had liabilities of \$1.6 million which the Company agreed to discharge. 20 shares of common stock were issued to two former directors of Opsys in settlement of \$0.2 million of these liabilities. The remaining \$1.4 million of these liabilities is being discharged by the Company in cash during 2005. The amended and restated Settlement and Amendment Agreement provides for an escrow of approximately 53% of the shares issuable to the Opsys shareholders against certain contingent liabilities and the possibility that other liabilities will emerge.

When the Company issued, in aggregate, 817 shares of common stock in conjunction with the Opsys transaction described above, based on the initial public offering price of \$12.00 per share, the value of that stock was \$9.8 million. The actual total purchase consideration was lower than that amount which had been estimated on January 1<sup>st</sup>, 2004 pursuant to the adoption of FIN 46(R), as described above, by \$7,215. This amount, therefore, recorded as a reduction in goodwill in December 2004.

*Litrex*

On November 20, 2001, the Company acquired an 86% interest in Litrex by purchasing certain notes held by Litrex's parent, Gretag Imaging Trading AG for \$10,000,000 plus costs associated with the transaction. These notes were immediately converted into common stock of Litrex. This acquisition has been accounted for as a purchase. The consolidated results of operations for Litrex subsequent to the acquisition have been included in the Company's consolidated statements of operations. Other intangible assets were amortized on a straight-line basis over five years. Pursuant to SFAS No. 142, as the acquisition occurred subsequent to June 30, 2001, goodwill is not being amortized, but was subject to annual impairment tests. The initial purchase price has been allocated to the acquired assets and liabilities of Litrex as follows:

Net tangible assets	\$ 616
Other intangible assets	500
Goodwill	9,233
	<hr/>
Purchase price	\$ 10,349
	<hr/>

During September 2002, the Company acquired the remaining 14% ownership in Litrex by issuing the shareholders 59 shares of Class A common stock in exchange for their common stock of Litrex, which resulted in an increase in goodwill of \$1,618 to \$10,851. The shares held by the minority shareholders in Litrex were valued at the same price per share as the price at which third-party investors had most recently purchased the Company's stock.

In August 2003, the Company sold 50% of the equity in Litrex to Ulvac Inc, a Japanese company, for \$15,084, of which \$1,388 has been held in an escrow account. Under the terms of the Sale and Purchase Agreement, the Company has made a number of warranties (which are secured by the amount held in escrow) and has other ongoing commitments, notably a Joint Venture Agreement with Ulvac under which the Company appoints three of the six Board members of Litrex. The Joint Venture Agreement contains provisions that the Company and Ulvac would have to work together to restructure Litrex if the level of funding that Ulvac has committed to under the Joint Venture Agreement were to be exceeded in this context, the Company is committed to working with Ulvac to ensure that Litrex is funded for so as long as it retains an equity stake. In addition, the Company and Ulvac have each signed a commitment letter to Litrex under the terms of which, if Litrex requests additional funding in order to maintain its operations, both the Company and Ulvac would



**Table of Contents****Cambridge Display Technology, Inc.****Notes to Consolidated Financial Statements (Continued)****All amounts in thousands except for per share amounts.**

provide such funding up to a maximum of \$1.25 million from each party. In light of the continuing commitments described above, the \$5,785 representing the excess of the cash proceeds over the carrying value of the shares sold has been deferred and is shown as *Deferred proceeds on sale of subsidiary stock* on the consolidated balance sheets. The \$1,388 which is currently held in escrow will be released when the remaining 50% of Litrex is sold and, at that time, an additional escrow amount of 10% of the consideration payable for the remaining 50% of Litrex shall be held in escrow for one year. The amount held in escrow has not been included in this *Deferred proceeds* amount and is not otherwise included in our financial statements. The Company will realize this gain as other income when the sale of the remaining 50% of Litrex is concluded.

The Sale and Purchase Agreement includes provision for Ulvac to purchase the remaining 50% of Litrex in November 2005. Such a purchase could be triggered in August 2005 by either Ulvac exercising a call option or the Company exercising a put option. The purchase will be a minimum of \$10.0 million but may be higher to the extent by which Litrex meets certain cash flow targets, with a maximum consideration of \$14.6 million. Ulvac would be able to reject our put in the event that (i) there were significant problems associated with the ability of Litrex to operate without infringing third-party patents, (ii) the Company is sold to a competitor of Ulvac or Litrex, (iii) the Company goes into liquidation, (iv) Litrex permanently ceases operations due to regulatory or legal action, (v) the Company loses its right to sub-license certain Seiko Epson patent rights related to ink jet printing or (vi) five out of ten named key employees, including the top three such employees, terminate their association with Litrex in any three month period starting prior to November 15, 2004. In the event that Ulvac rejects the Company's put option, or if Ulvac advises the Company that it will not exercise its call option, the Company would then have an option to call back the Litrex shares owned by Ulvac for a consideration of \$13,880,000, plus the aggregate of any equity funding providing by Ulvac to Litrex after August 2003. In addition to the amount to be held in escrow when the second 50% of Litrex is sold, an amount up to \$1,300,000 will be deducted from the purchase price to fund the Company's 50% liability under the Litrex special bonus plan.

In June 2004, the Company agreed to provide up to \$1.25 million of financial support to Litrex if this is necessary to fund Litrex's operations during the following twelve months and has loaned Litrex an additional \$1.3 million in the first quarter of 2005 see also Note 12.

**4. Property, Equipment and Leasehold Improvements**

Property, equipment and leasehold improvements include the following at December 31:

	<u>2004</u>	<u>2003</u>
Machinery and equipment	\$ 22,120	\$ 22,047
Leasehold improvements	9,066	8,409
Furniture and office equipment	3,076	3,107

Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

	34,262	33,563
Less: accumulated depreciation	(18,267)	(13,897)
	<u>          </u>	<u>          </u>
	\$ 15,995	\$ 19,666
	<u>          </u>	<u>          </u>

Deprecation expense for the years ended December 31, 2004, 2003 and 2002 were \$6,007, \$6,334 and \$3,998, respectively.

**Table of Contents****Cambridge Display Technology, Inc.****Notes to Consolidated Financial Statements (Continued)**

**All amounts in thousands except for per share amounts.**

**5. Investments**

Summary financial information for affiliated companies accounted for by the equity method is as follows:

	Arborescent	Litrex	Litrex post Aug. 14, 2003	CDT Oxford	
	2004	2004		2003	2002
Current assets	\$ 110	\$ 7,008	\$ 4,656	\$ 2,049	\$ 196
Non-current assets	2	12,231	12,555	1,968	2,945
Current liabilities	(42)	(9,069)	(5,377)	(4,523)	(1,186)
Non-current liabilities	(101)	(77)	(83)		(106)
Net sales		8,260	2,151	353	
Gross profit		3,197	33	25	
Net loss	(259)	(4,922)	(2,569)	(2,355)	(651)

The Company owns 40% of Arborescent 2 Limited and accounts for it as an affiliate under the equity method. As at December 31, 2004, the carrying value of this investment was zero, since the Company's share of losses exceeded its cash investment. The equity in the underlying net liabilities of Arborescent was approximately (\$13) in 2004. The difference in the investment in Arborescent and the Company's interest in the equity in the underlying net assets is as a result of Arborescent having net liabilities. The difference affecting the determination of the Company's share of earnings or losses of Arborescent will be recognized when Arborescent generates sufficient net income to offset the Company's share of any historical losses or deficits not previously recognized.

The Company owns 50% of Litrex Corporation and accounts for it as an affiliate under the equity method. The equity in the underlying net assets of Litrex was approximately \$2,546 and \$5,007 in 2004 and 2003, respectively. See also Note 13.

The Company owns less than 5% of Plastic Logic Limited and less than 5% of MicroEmissive Displays plc. Plastic Logic is an early stage private company and the Company values this investment at zero. MicroEmissive Displays plc is listed on the Alternative Investment Market of the London Stock Exchange and is held as a current marketable security which is revalued based on the market price of the securities at the end of each period. Marketable equity securities consist of investment in common stock with a market value of \$1.2 million and a cost of \$1.1 million.

**6. Other Intangible Assets**

In October 2001, CDT International for payment of \$5,000 entered into a nonexclusive license agreement with another third party to enable the Company to use certain technology, intellectual property rights and know-how. The license term continues until the last of the patents ceases to be in force, unless it is terminated early under certain circumstances, as defined in the agreement. The agreement allows for sublicenses to be granted by CDT International. This license has now been transferred to the Company and Limited, recorded in other intangible assets, and is being amortized over five years.

The amount of amortization included within other intangible assets on the Company's balance sheets is shown in the table below:

	<u>2004</u>	<u>2003</u>
Gross other intangible assets	\$ 12,700	\$ 12,630
Accumulated amortization	(8,223)	(6,643)
Other intangible assets	<u>\$ 4,477</u>	<u>\$ 5,987</u>

**Table of Contents****Cambridge Display Technology, Inc.****Notes to Consolidated Financial Statements (Continued)**

**All amounts in thousands except for per share amounts.**

**7. Accounts payable and accrued expenses**

Accounts payable and accrued expenses consist of the following:

	<u>2004</u>	<u>2003</u>
Accounts payable	\$ 1,113	\$ 662
Accrued expenses		
Payroll related	1,997	1,384
UK National Insurance payable on stock compensation	623	
Liabilities assumed on acquisition of Opsys Limited	1,370	
Expenses related to initial public offering	394	
Other professional fees	672	266
Payable to universities for research services	648	19
Facilities related costs	705	172
Cost related to the sale of 50% of Litrex equity		565
Capital equipment		226
Other	1,082	928
	<u>\$ 8,604</u>	<u>\$ 4,222</u>

**8. Common Stock**

For consideration of Common Stock purchased by two shareholders in July 1999, the shareholders issued a secured, full recourse promissory note of \$3,163 to the Company. The term of note ends upon the earlier of August 8, 2008 or a Termination Event, as defined in the note. In the event that the shareholders are unable to pay, the note is secured by the shares of Common Stock issued to the two shareholders.

In addition to the common stock which has been sold for cash, the Company issued 59 shares valued at \$27.60 per share to acquire the 14% minority stake in Litrex in 2002 (see Note 3). In addition, also in 2002 the Company issued 109 shares valued at \$27.60 per share to acquire the shares in Opsys Limited as further described in Note 3. Further, as more fully described in Note 9, certain common stock previously issued for cash consideration was converted into preferred stock during 2002 and 2003.

## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

On August 10, 2004, the Company filed an amendment to the Certificate of Designations defining the terms of the Company's Series A and Series B redeemable convertible preferred stock to amend the provisions governing the mandatory conversion of such shares of preferred stock upon consummation of an underwritten initial public offering of the Company's common stock. Under the terms of this amendment, in the event that there were to be an initial public offering prior to December 31, 2004 which did not fall within the previous definition of a Qualifying IPO but under which the pre-money market capitalization of the Company exceeded \$200 million, then all of the series A and series B redeemable convertible preferred stock would mandatorily convert to common stock. The number of shares of common stock to be issued would be such number of shares which, at the IPO price, equalled 2.25 times the amount originally paid for that stock plus, in the case of the Series A an additional \$6 million of stock in relation to the Initial Investor Preference.

Pursuant to this arrangement, immediately prior to the Company's IPO in December 2004, all of the Company's Series A and Series B preferred stock was converted into 6,476 shares of common stock, with an aggregate value of \$77.7 million, or \$77.3 million net of expenses, at the IPO price of \$12.00 per shares.

2,500 shares of common stock were issued to investors in our initial public offering on the Nasdaq national market in December 2004.

817 shares of common stock were issued to parties related to Opsys Limited in December 2004 as described in Note 3 above.

**Table of Contents**

**Cambridge Display Technology, Inc.**

**Notes to Consolidated Financial Statements (Continued)**

**All amounts in thousands except for per share amounts.**

**9. Redeemable Convertible Preferred Stock**

During 2002, the Company authorized issuance of up to 45 shares of \$0.01 par, redeemable convertible preferred stock in two series. Series A Preferred Stock consists of 6 shares and Series B Preferred Stock consists of 39 shares (collectively Preferred Stock). In December 2002, 6 shares of Series A preferred stock and 9 shares of Series B preferred stock were issued for cash consideration of \$6,000 and \$9,000, respectively. At the same time, 10 shares of Series B preferred stock were issued in exchange for 619 shares of Class A common stock. In March 2003, a further 5 shares of Series B preferred stock were issued for cash consideration of \$4,684, and 2 shares of Series B preferred stock were issued in exchange for 135 shares of Class A common stock.

Each share of Preferred Stock was convertible into 36.23 shares of Class A Common Stock at a price equal to \$27.60 per common share (the Conversion Price). The Conversion Price was subject to change in certain circumstances, including stock splits and dividends. There are no separate dividends on the preferred shares, other than sharing in any dividends declared and paid on the Common Stock (including both Class A voting and Class B nonvoting) on an as-converted basis. The Preferred Stock was redeemable by the holders 10 years after issuance. On December 31, 2003, there were 6 shares of Series A convertible preferred stock issued and outstanding, which could convert into 217 shares of common stock, and 26 shares of Series B convertible preferred stock issued and outstanding, which could convert to 937 shares of common stock plus 217 shares of common stock that would be issuable under the Initial Investor Preference provisions described below.

As described in Note 8 above, all of the Company's Series A and Series B preferred stock was converted to common stock in December 2004, immediately prior to the Company's initial public offering.

Pursuant to the Securities and Exchange Commission Accounting Series Release No. 268, the difference between the issue price of the Preferred Stock and the redemption value has been accreted to the carrying value of the Preferred Stock from the subscription date until the Company's IPO in December 2004. Preferred stock accretion amounts have been charged to Paid-in-Capital and credited to Preferred Stock. The Company accreted \$11,603 for the Series A preferred stock and \$27,163 for the Series B preferred stock in 2004, \$1,800 for the Series A preferred stock and \$4,971 for the Series B preferred stock in 2003, and \$97 for the Series A preferred stock and \$204 for the Series B preferred stock in 2002. The amounts accreted in 2002 and 2003 and from January 1, 2004 until the Company's initial public offering were based on a ten-year accretion schedule. The amount accreted in December 2004 was, pursuant to SFAS 84 Induced conversions of Convertible Debt and EITF issue D-42 which applies SFAS 84 to conversions of preferred stock, a beneficial conversion. The accretion immediately prior to the conversion was the difference between the amount paid initially for the Preferred Stock, plus the accretion to date based on a redemption at ten years and the value of the common stock into which the Preferred Stock would convert, at the initial public offering price.

**Table of Contents****Cambridge Display Technology, Inc.****Notes to Consolidated Financial Statements (Continued)**

**All amounts in thousands except for per share amounts.**

The following table summarizes information concerning changes in the Company's preferred stock:

	<u>Series A</u>	<u>Series B</u>
Balance at January 1, 2002	\$	\$
Issued in Exchange for Shares of Class A Common Stock		10,000
Issued in Exchange for Cash	6,000	9,000
Accretion of Liquidation Preference	97	204
	<u>        </u>	<u>        </u>
Balance at December 31, 2002	6,097	19,204
Issued in Exchange for Shares of Class A Common Stock		2,187
Issued in Exchange for Cash		4,684
Accretion of Liquidation Preference	1,800	4,971
Expenses of Issue of Preferred Stock		(456)
	<u>        </u>	<u>        </u>
Balance at December 31, 2003	\$ 7,897	\$ 30,590
Accretion of Liquidation Preference	11,603	27,163
Conversion of Preferred Stock to Common Stock	(19,500)	(57,753)
	<u>        </u>	<u>        </u>
Balance at December 31, 2004	\$	\$
	<u>        </u>	<u>        </u>

**10. Stock-Based Compensation and Warrants**

In April 2000, the Company adopted the CDT Acquisition Corp. Stock Incentive Plan (the Plan). Under the Plan, options may be granted to employees, consultants and directors. Options available for grant under the Plan total 1,170. Under the Plan, employees generally are granted two types of options in one grant: Service Options (one-third of total grant) and Exit Options (two-thirds of total grant). Certain employees of Litrex were only granted Service Options. Service Options granted in 2002 and later were granted at fair market value at date of grant, and generally vest 25% on the six-month anniversary of grant, and 25% on the anniversary date of each grant for each of the next three years. Fair value was determined by reference to equity sold during the relevant period. Service options to Litrex employees were granted at fair market value at date of grant, vest 20% on the six-month anniversary of grant, and 20% on the anniversary date of each grant for each of the next four years. Prior Service Options were generally granted at fair market value at date of grant, vest 25% on the date of grant and 25% per annum thereafter and have lives of no more than 10 years. Exit Options become exercisable, if at all, on the date of the first occurrence of a change in control (a Vesting Event, as defined in the Plan), in which the majority shareholders receive an internal rate of return of at least 30%. If upon the first Vesting Event, the required internal rate of return is not achieved, they shall not become exercisable as a result of a Subsequent Vesting Event, as defined by the Plan. Upon the sale of the 50% interest, all Litrex options were cancelled in August 2003.



## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

In August 2004, the Company adopted a new Stock Incentive Plan. The plan provides for the award of (i) stock options (including incentive stock options), (ii) restricted stock and restricted units, (iii) stock appreciation rights, (iv) incentive stock and incentive units and (v) deferred shares and supplemental units. Awards may be made to directors, officers, employees and consultants. Any options issued will be priced at fair market value and the number of shares subject to such options and awards will be a maximum of 725 of shares of the Company's common stock plus such number of options granted under the existing stock incentive plan as are forfeited under such plan or which otherwise lapse. The Company issued 92 stock options under the terms of this plan in December 2004, such options to vest in three equal annual instalments from the date of grant and with an exercise price of fair market value.

The Company has elected to follow Accounting Principles Board Opinion No. 25, *Accounting for Stock Issued to Employees* ( APB 25 ), and related interpretations in accounting for its employee stock options. Under

F-21

**Table of Contents****Cambridge Display Technology, Inc.****Notes to Consolidated Financial Statements (Continued)****All amounts in thousands except for per share amounts.**

APB 25, because the exercise price of most of the Company's Service Options equals the market price of the underlying stock on the date of grant, no compensation expense is recognized. For Exit Options, if an appropriate Vesting Event becomes probable, compensation expense will have to be recorded for the intrinsic value, which would be the difference between the market value on the date of the Vesting Event and the exercise price. No compensation expense will be recorded prior to the Vesting Event. In the event that the exercise price is below the market price of the Service Options, compensation expense will be recorded on a straight-line basis over the vesting period. For the years ended December 31, 2004, 2003 and 2002, the Company expensed \$1, \$19 and \$19 respectively, related to Service Options granted with an exercise price below the market price.

The following table summarizes information concerning the outstanding and exercisable options:

	Number of Shares (thousands)	Exercise Price Range	Weighted Average Exercise Price
Outstanding, December 31, 2001	885	\$ 17.82 - \$27.60	\$ 19.22
Granted	225	\$27.60	\$ 27.60
Exercised	1	\$ 17.82 - \$24.18	\$ 21.00
Cancelled / buyback	183	\$ 17.82 - \$24.18	\$ 19.72
Outstanding, December 31, 2002	926	\$ 17.82 - \$27.60	\$ 21.17
Granted	134	\$27.60	\$ 27.60
Cancelled	184	\$ 17.82 - \$27.60	\$ 25.09
Outstanding, December 31, 2003	876	\$ 17.82 - \$27.60	\$ 21.67
Granted	161	\$ 11.18 - \$27.60	\$ 18.36
Cancelled	83	\$ 17.82 - \$27.60	\$ 25.47
Outstanding, December 31, 2004	954	\$ 11.18 - \$27.60	\$ 20.50
Exercisable, December 31, 2004	315	\$ 17.82 - \$27.60	\$ 20.73
Exercisable, December 31, 2003	217	\$ 17.82 - \$27.60	\$ 19.79
Exercisable, December 31, 2002	197	\$ 17.82 - \$27.60	\$ 19.40

At December 31, 2004, there remain 940 options available for future grants.

Options Outstanding:

<u>Exercise Price</u>	<u>Weighted Average Remaining Contractual Life (years)</u>	<u>Number Outstanding (thousands)</u>	<u>Number Exercisable (thousands)</u>
\$11.18	10.0	65	
\$12.00	10.0	27	
\$17.82	5.5	499	202
\$24.18	6.5	120	56
\$27.60	8.2	243	57
		<u>954</u>	<u>315</u>

There is one outstanding warrant exercisable for 3,218 shares of the Company's common stock at an exercise price of \$17.82 per share. This warrant was issued in August 2000 and will expire in August 2007.

**Table of Contents**

**Cambridge Display Technology, Inc.**

**Notes to Consolidated Financial Statements (Continued)**

**All amounts in thousands except for per share amounts.**

Prior to the Company's initial public offering, the fair value of common stock options was established contemporaneously with their issuance based upon reference to various common and preference stock rounds concluded by the Company. Such value was \$17.82 per share through November 2000, \$24.18 per share from December 2000 to September 2001 and \$27.60 per share thereafter until the Company's initial public offering in December 2004. The fair value of common stock issued on the date of the offering was set at the offering price of \$12.00 and after the Company stock became publicly quoted is set at the closing price of the stock on the Nasdaq National Market on the day the options are issued. Some options were issued at \$11.18 under this method.

In August 2004, the Company adopted a Special Bonus Plan. Under the plan, the Company awarded special bonuses to its employees out of a bonus pool equal to a percentage of the notional purchase price (as defined in the plan) paid upon a liquidity event. A liquidity event was defined as any transaction or series of transactions involving the disposal of the Company or its assets by Kelso and Hillman Capital or a public offering of the Company's stock. The notional purchase price calculation was based on the market capitalization of the Company's shares outstanding immediately prior to the company's initial public offering, which was in turn based on the initial public offering price of the Company's common stock. The bonus pool was equal to 6% of the notional purchase price up to and including \$100 million, plus 8% of the notional purchase price for amounts from \$100 million up to and including \$200 million, plus 10% of the notional purchase price for amounts from \$200 million up to and including \$300 million, plus 15% of the notional purchase price for amounts above \$300 million. Since the liquidity event was a public offering, awards under the plan were paid in restricted stock units based on shares of the Company's stock which will vest on each of the first three anniversaries of the liquidity event, or earlier in the event that Kelso sells all or a portion of its shares in the Company.

In 2004, the Company allocated awards under its special bonus plan to officers and employees. These awards were made from a bonus pool with a value of \$14.4 million, based on the initial public offering price for our common stock of \$12.00 per share. All awards under this plan made with respect to this offering were made in restricted stock units representing a right to receive, in aggregate, 1,200 shares of our common stock. Except as discussed below, such awards will vest in three equal installments on each of the first three anniversaries of the public offering. However, if Kelso sells, in the aggregate, more than 25% of its shares of our common stock, such awards will vest in full upon such sale. We are expensing the value of these awards over a three-year period commencing December 2004, subject to acceleration in the event of a Kelso sale.

Substantially all awards made under this plan will be subject to U.K. employer's national insurance tax, which is currently 12.8% of the value of the awards and which would be payable by us based on the market value of the stock on the date it becomes available for sale. The award to our chief executive officer, representing 35% of the bonus pool, or restricted stock units with a value of \$5.0 million, will vest whether or not he remains employed by us unless he is terminated for cause (as defined in his employment agreement), if his employment agreement is not extended for cause or if he terminates his employment in circumstances that justify termination for cause. The value of this award, plus the U.K. employer's national insurance tax of 12.8% payable by us, was expensed upon the consummation of our initial public offering. The remaining 65% of the bonus pool is being expensed over the three year vesting period. The accrued charge for the U.K. employer's national insurance tax will depend on the market price of our common stock when it is delivered and will be subject to variability upon fluctuations in our stock price until such time as all shares of our common stock have been delivered to recipients of awards under this plan. The UK National Insurance will have to be paid at the time the stock is issued to the award holders.

## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

In the fourth quarter of 2004 the Company charged \$5.1 million to operating expenses \$5.0 million of which comprised the value of the award made to the Company's chief executive officer which vested upon issuance and \$0.1 million related to two weeks vesting in 2004 of the awards to other bonus holders. These awards are being

F-23

**Table of Contents****Cambridge Display Technology, Inc.****Notes to Consolidated Financial Statements (Continued)**

**All amounts in thousands except for per share amounts.**

charged to expense on a fixed accounting basis over their three year vesting period. \$0.6 million was accrued in relation to the potential UK national insurance liability this accrual will vary depending on the share price at the end of each quarter, the vesting schedule and the current UK national insurance rate.

**11. Income Taxes**

The Company is liable for franchise taxes to Delaware, its state of incorporation. Such taxes have been included in the provision for income taxes for the years ended December 31, 2004, 2003, and 2002. For the years ended December 31, 2004, 2003 and 2002, the Company recorded a tax benefit primarily due to a research and development tax credit from 2004 and prior years. The Company has filed amended tax returns from the prior years to recoup the tax credit. The U.K. Subsidiaries of the Company are eligible to participate in the U.K. s research and development tax credit program. Under this program, small and medium sized enterprises, such as the Company, are permitted a deduction in taxable profits of 150% the amount of certain research and development expenditures (primarily salaries, salary related costs and consumables used in research and development activities). This deduction may be surrendered for a cash payment of 16% of the total deduction for those years during which the Company sustains a loss. Limited and CDT Oxford have both claimed such cash payments for the years ended December 31, 2002 and 2003.

The tax refund in relation to 2003 has not yet been received since the Company s claim is being investigated by the U. K. tax authorities with respect to whether or not it meets the criteria of being a small or medium-sized enterprise. It believes that it does meet those criteria and that it is more likely than not that the refund will be received. In the event the U. K. tax authorities were to rule that the Company did not qualify for any repayment we would have to reverse a tax benefit of \$3.8 million of which \$2.3 million relates to 2003 and \$1.5 million relates to 2004 but we would not be required to repay any tax repayments which have been received in relation to prior years.

The following is a reconciliation of the statutory financial income tax rate and the effective income tax rate application to earnings before income taxes for the year ended December 31:

	<u>2004</u>	<u>2003</u>	<u>2002</u>
Statutory tax rate	35.0%	35.0%	35.0%
Change in valuation allowance	(35.0)%	(35.0)%	(35.0)%
Research and development tax credit	(6.7)%	(3.9)%	(10.2)%
	<u>          </u>	<u>          </u>	<u>          </u>
Effective tax rate	(6.7)%	(3.9)%	(10.2)%
	<u>          </u>	<u>          </u>	<u>          </u>

## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

Deferred income taxes reflect the net tax effects of operating loss and credit carryforwards and temporary differences between the carrying amounts of assets and liabilities for financial reporting and the amount used for income tax purposes. Given the Company's activities and the uncertainty of the future utilization of these carryforwards, the Company has provided valuation allowances for the full amount of the net deferred tax asset.

F-24

**Table of Contents****Cambridge Display Technology, Inc.****Notes to Consolidated Financial Statements (Continued)**

**All amounts in thousands except for per share amounts.**

Significant components of the Company's net deferred tax amounts for federal, state and foreign income taxes are as follows at December 31:

	<u>2004</u>	<u>2003</u>	<u>2002</u>
<b>Deferred tax assets</b>			
Net operating loss carry forwards	\$ 22,940	\$ 18,004	\$ 16,524
Other	2,556	220	516
	<u>25,496</u>	<u>18,224</u>	<u>17,040</u>
<b>Deferred tax liabilities</b>			
Deferred revenue	(38)		(328)
Tax over book depreciation	(4,178)	(4,800)	(6,465)
	<u>21,280</u>	<u>13,424</u>	<u>10,247</u>
Valuation allowance for deferred tax assets	(21,280)	(13,424)	(10,247)
	<u>21,280</u>	<u>13,424</u>	<u>10,247</u>
<b>Net deferred tax asset</b>	<u>21,280</u>	<u>13,424</u>	<u>10,247</u>

The majority of the net operating loss carryforwards is available only to the results of the U.K. Subsidiaries and their respective consolidated entities (\$74 million in 2004, \$60 million in 2003 and \$48 million in 2002). They are not available to offset income, if any, earned by the Company or any non-U.K. operations. Under U.K. tax laws, such loss carryforwards do not expire, and under certain circumstances, can be used by other U.K. controlled group entities.

**12. Employee Pension Plans**

Limited contributes to individual defined contribution pension plans for its employees. For the years ended December 31, 2004, 2003, and 2002, expenses were \$352, \$343, and \$267, respectively. The Company and Litrex administer a contributory savings plan under Section 401(k) of the Internal Revenue Code for eligible employees. Contributions by employees are not taxable until retirement or early withdrawal. The Company's contributions under the Plan, which amounted to 100% of employee contributions to a maximum of 5% of the total eligible compensation, approximated \$13, \$127, and \$166 for the years ended December 31, 2004, 2003, and 2002, respectively.

**13. Commitments and Contingencies**



## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

Included within Other Intangible Assets at December 31, 2004 and 2003 is a license for intellectual property which is valued, net of accumulated amortization, at \$1,833 and \$2,833, respectively. The licensor has advised the company that this license is terminated, on grounds which the Company believes are not well founded. The licensor has been in negotiation with the Company with a view to resolving this dispute such that the Company would retain its rights to this intellectual property and the Company believes that this dispute will be resolved satisfactorily without recourse to legal action. In the event that these discussions are not successful, the Company could incur material expenditures on legal proceedings against the licensor and might have to write off the net value of this asset.

When the Company acquired Opsys Limited in December 2004, there was an arbitration action being conducted in California to settle a claim by a former employee in the amount of \$320. In the event that the Company loses the arbitration or settles this claim, shares currently held in escrow and owned by the former shareholders of Opsys will be forfeited to the value of the award or settlement.

F-25

**Table of Contents****Cambridge Display Technology, Inc.****Notes to Consolidated Financial Statements (Continued)****All amounts in thousands except for per share amounts.**

In January 2005, Sunnyside Development Company ( Sunnyside ) filed a complaint against Opsys Limited ( Opsys ) and a company named by Sunnyside as CDT Limited in California Supreme Court alleging breach of contract and fraud arising out of an alleged property lease agreement between Opsys and Sunnyside. It is assumed that the reference to CDT Limited (which does not exist) is intended to be a reference to Cambridge Display Technology Limited ( CDT ). CDT was not party to the lease. Sunnyside seeks compensatory damages that it claims exceed \$10 million and punitive damages in the amount of \$25 million. In October 2002, Opsys and Sunnyside executed an Assignment of Lease and Consent of Lessor, which included a release of Opsys by Sunnyside. In February 2005, CDT and Opsys removed the action to the United States District Court for the Northern District of California. The Company believes that the claim has no merit and have filed motion to dismiss the case.

Under the terms of a contract between Covion Organic Semiconductors and the Company, the Company is obligated to provide the equivalent of 10 full service equivalent scientists and engineers to work on research and development projects related to P-OLED materials until December 2006. The Company receives royalties from Covion based on the revenues for all Covion's sales of P-OLED materials, whether or not those materials were developed by the project team. Until the end of 2003, the royalties received from Covion were less than the costs of funding the project team and such excess costs have been expensed. Since royalties will continue to be payable after the obligation to provide research services has concluded, the Company anticipates that the contract will be profitable and accordingly has not included a loss provision.

Under the terms of the Sale and Purchase Agreement with Ulvac, the Company is required to fund 50% of the special bonus plan in which all employees of Litrex are eligible to participate. The liability under this plan is related to the cash flow performance of Litrex but will not exceed \$1.3 million. The Company will only become liable for this when it sells the remaining 50% of Litrex equity. This amount will be withheld from the purchase price to be received from Ulvac, in addition to the amount to be held in escrow.

On the basis of facts presently known, the Company is not involved in any other legal proceedings which could have a material adverse effect on the Company's financial condition, liquidity or results of operations.

The Company leases land and buildings under operating leases in which they currently conduct their business. The leases expire between March 2011 and July 2014, and can be renewed by negotiation. Future rental commitments under these leases are as follows:

Year ended December 31:	
2005	\$ 672
2006	672
2007	672
2008	672
2009	672
Thereafter	2,254

\$ 5,614

Rent expense for the years ended December 31, 2004, 2003, and 2002 were \$701, \$896, and \$962, respectively.

At December 31, 2004 and 2003 the Company had contracted for capital expenditures of approximately \$152 and \$1,326, respectively, which are not reflected in the accompanying consolidated financial statements.

F-26

---

**Table of Contents**

**Cambridge Display Technology, Inc.**

**Notes to Consolidated Financial Statements (Continued)**

**All amounts in thousands except for per share amounts.**

Litrex led a consortium developing ink jet printing technology under a project which is funded by the U.S. government. Up until August 2003, when the Company sold 50% of its equity interest in Litrex, \$1.5 million had been received by Litrex in grant funding for that project, of which \$1.0 million was passed on to other consortium members. Under the terms of this arrangement, should Litrex be sold to a non-U.S. company, previously received grant income may have to be reimbursed. The Company anticipates that it will sell its remaining 50% equity interest in Litrex in November 2005 to a non-U.S. company. In the event that Litrex is obligated to repay any or all of the \$1.5 million, the Company has agreed that it will reimburse the amount which has to be repaid.

The Company has a line of credit that was entered into in July 2004 providing for a maximum amount of \$15.0 million, which was not drawn upon at December 31, 2004 and of which \$0.5 million may not be borrowed. This line of credit is available for a minimum of one year, renewable for two further years, and is secured by a letter of credit issued by Wells Fargo Bank, which is secured by the Company's patents, trademarks and copyrights and associated license revenues. In addition to certain fixed fees payable regardless of whether or not the facility is utilized and which amount to approximately 3% of the total amount of the facility per year, the Company will be liable to pay interest and charges of 3.75% above the U.S. dollar London Inter-Bank Offer Rate on any drawing under this facility. Under the terms of this facility, any draw down requires the Company to certify that it continues to satisfy certain financial covenants: specifically its Consolidated Total Net Worth, as defined, must exceed \$75.0 million, and its current assets less current liabilities, but excluding deferred revenue, must not be less than minus \$15.0 million. In addition, the Company is required to report the filing of any new patents, trademarks and copyrights and add those to the existing intellectual property portfolio which has been assigned as security to IPI Financial Services which arranged the letter of credit. The Company is obligated to maintain the validity of all of its patents and only to license such patents to third parties under terms which are within the parameters of its customary licensing practices or to which IPI Financial Services has provided its consent.

**14. Segments**

The Company has adopted the provisions of SFAS No. 131, *Disclosures about Segments of an Enterprise and Related Information*. SFAS No. 131 requires companies to report financial and descriptive information about their reportable operating segments. The Company identifies its operating segments based on how management internally evaluates separate financial information, business activities and management responsibility.

According to these criteria, the Company operated in two segments during 2002 and 2003: CDT Research and Licensing (CDT) and Litrex Ink Jet Equipment (Litrex). CDT Research and Licensing comprises the parent company and U.K. subsidiary operations of the group, whose business is to develop and commercialize intellectual property concerning P-OLED technology. This segment performs research into P-OLEDs and similar devices. It seeks to license the intellectual property which results from this research. The Litrex Ink Jet Equipment segment comprises Litrex Corporation, based in California. Litrex develops and markets ink jet printing systems which can be used to manufacture P-OLED devices as well as for other applications.

## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

For the year ended December 31, 2004, revenues from four external customers in the CDT business segment exceeded 10% of the Company's total revenues. Total revenues from each of these customers were \$2,855, \$1,900, \$1,624 and \$1,360, respectively. The Company has no amounts receivable from these customers as at December 31, 2004. For the year ended December 31, 2003, revenues from two external customers in the CDT business segment exceeded 10% of the Company's total revenues. Total revenues from each of these customers were \$3,179 and \$2,000, respectively. For the year ended December 31, 2002, revenues from two external customers exceeded 10% of the Company's total revenues. Total revenues were \$2,000 from one customer in the CDT business segment and \$817 from one customer in the Litrex business segment.

F-27

**Table of Contents****Cambridge Display Technology, Inc.****Notes to Consolidated Financial Statements (Continued)**

**All amounts in thousands except for per share amounts.**

The Company sold 50% of its equity stake in Litrex on August 14, 2003, and, therefore, the segmental data for 2003 only includes results for the Litrex Ink Jet Equipment segment through this date. After this date, the financial results of Litrex are reported by the Company using the equity method, and, because the Company intends to sell the remaining 50% in November 2005, Litrex Ink Jet Equipment is no longer considered to be a segment. Since August 14, 2003, the Company believes it operates in a single business segment.

	<b>2003</b>			
	<b>CDT</b>	<b>Litrex</b>	<b>Eliminations</b>	<b>Total</b>
Revenues from external customers	\$ 8,072	\$ 2,608	\$	\$ 10,680
Inter-segment revenues		500	(500)	
Interest income	563		(148)	415
Interest payable	(6)	(148)	148	(6)
Depreciation and amortization expenses	7,704	331	(76)	7,959
Equity in net loss of investees	(3,639)			(3,639)
Income tax (benefit)	(929)	(3)		(932)
Segment (loss)	(19,564)	(3,146)	(67)	(22,777)
Segment assets	113,870			113,870
Expenditure for long-lived assets	3,746	98	(143)	3,701
	<b>2002</b>			
	<b>CDT</b>	<b>Litrex</b>	<b>Eliminations</b>	<b>Total</b>
Revenues from external customers	\$ 3,201	\$ 3,852	\$	\$ 7,053
Inter-segment revenues		320	(320)	
Interest income	386		(104)	282
Interest payable	10	104	(104)	10
Depreciation and amortization expenses	7,489	231	(62)	7,658
Equity in net loss of investees	(651)			(651)
Income tax (benefit)	(3,595)			(3,595)
Segment (loss)	(26,221)	(5,374)	(123)	(31,718)
Segment assets	125,395	16,206	(12,479)	129,122
Expenditure for long-lived assets	3,906	667	(185)	4,388

**15. Related Party Transactions**

## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

During the year ended December 31, 2004, Limited purchased ink jet printing systems for \$525 (a deposit of \$262 was paid in 2003) and placed new deposits of \$3,105 with Litrex. Limited also charged \$344 to Litrex for services provided, and Litrex charged the Company and Limited \$132 for services provided and \$102 for smaller capital items. As of December 31, 2004, the amount due from the Company and Limited to Litrex amounted to \$2.

During the year ended December 31, 2003, Limited forwarded cash amounts of \$2,754 to CDT Oxford, incurred net expenses on their behalf of \$165 which were recharged and purchased fixed assets from them for \$517. As of December 31, 2003, there was an amount due to Limited of \$2,576 (2002: \$292) from CDT Oxford.

During the period from August 14, 2003 to December 31, 2003, Limited purchased ink jet printing systems for \$1,050 and placed deposits of \$813 with Litrex. Limited also charged Litrex Corporation \$112 for services provided. As of December 31, 2003, the amount due from Litrex to Limited amounted to \$37.

F-28

---

**Table of Contents**

**Cambridge Display Technology, Inc.**

**Notes to Consolidated Financial Statements (Continued)**

**All amounts in thousands except for per share amounts.**

Dr. David Fyfe, CEO, is employed by the Company but is required to work in the U.K. Under the terms of his employment contract, the Company makes payments to him in order that he can settle his U.K. tax liabilities. A U.S. to U.K. tax equalization payment is made to Dr. Fyfe each year to compensate him for any taxes payable during the previous year which are in excess of what he would have paid had he been working solely in the U.S. Any payments of U.K. taxes made in the prior year are netted off the tax equalization payment. During 2004, amounts of \$148 (2003: \$237, 2002: \$36) were paid to Dr. Fyfe for the settlement of U.K. taxes. There was no liability due to or from him as of December 31, 2004.

Under the terms of Dr. Fyfe's employment contract, he will become entitled to a pension of \$500, payable in five equal installments after his retirement from the company. No payment will be made if he leaves the company prior to the end of his contract without good reason, or if his contract is terminated for cause. Payment of each annual installment will be deferred if in any year the company's EBITDA is negative and there has been no change of control event. The full outstanding sum will become immediately payable to Dr. Fyfe's estate in the event of his death. This liability is being accrued over the period of his employment contract the liability at December 31, 2004 was \$367.

Each of Kelso and Hillman is party to a separate consulting agreement with the Company pursuant to which they agree to provide such specific consulting services as the Company may request and the Company agrees to indemnify them from and against any claims, losses and expenses they may incur in connection with their investment in it or their provision of services to the Company under these agreements or their being a controlling person of the Company, except as may be finally judicially determined to result from gross negligence or intentional misconduct on their part. Under the terms of each of these agreements, if Kelso or Hillman provides consulting services specifically requested by the Company out of the ordinary course of business to it, the Company and Kelso or Hillman, as applicable, will negotiate a mutually acceptable advisory fee. The term of the Company's consulting agreements with Kelso and Hillman end on the date on which, respectively, Kelso (and its affiliates) and Hillman (and its affiliates) cease to own any shares of its common stock. In connection with these agreements, Kelso and Hillman may receive consulting fees from the Company and are entitled to receive reimbursement of certain out-of-pocket fees and expenses incurred in connection with their investments in the Company. No such consulting fees have been paid to Kelso or Hillman. The Company paid Kelso expense reimbursements in the aggregate of \$28, \$67 and \$20 respectively, for 2002, 2003 and 2004. The Company paid Hillman expense reimbursements in the aggregate of \$15, \$34 and nil respectively, for 2002, 2003 and 2004.

**16. Subsequent Events (Unaudited)**

In March 2005 the Company invested \$1.0 million in Add-Vision Inc., a company located in California which researches and develops flexible, low cost, low resolution displays. It also granted Add-Vision Inc. a license to its intellectual property in return for additional equity. As a result of these transactions, it will own an equity interest in Add-Vision Inc of approximately 50%. The Company is currently evaluating whether or not Add Vision falls within the definition of a variable interest entity to be accounted for as a consolidated subsidiary or as an affiliate accounted for under the equity method.



## Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

The Company has loaned Litrex \$1.3 million to Litrex in 2005. The \$1.3 million loan is repayable on January 31, 2006 or when there is a change in Litrex ownership, except that if the Company sells its remaining stake in Litrex to Ulvac and Ulvac agrees to guarantee the loan at that time, the repayment date will remain at January 31, 2006. The loan is interest bearing at a rate of between 5.25% and 5.50% depending on the date of the advance.

F-29

**Table of Contents****Cambridge Display Technology, Inc.****Notes to Consolidated Financial Statements (Continued)**

All amounts in thousands except for per share amounts.

**17. Quarterly Data (Unaudited)**

	Quarter ended March 31, 2004	Quarter Ended June 30, 2004	Quarter ended September 30, 2004	Quarter ended December 31, 2004
Operating revenues	\$ 1,316	\$ 2,558	\$ 1,645	\$ 7,767
Gross profit	1,077	2,293	932	6,990
Loss from operations	(5,890)	(3,987)	(6,868)	(6,475)
Net loss before cumulative effect of accounting change	(5,510)	(3,857)	(7,505)	(5,713)
Net loss	(17,710)	(3,857)	(7,505)	(5,713)
Net loss per common share attributable to common shareholders before cumulative effect of accounting change	\$ (0.75)	\$ (0.57)	\$ (0.56)	\$ (4.29)
Net loss per common share attributable to common shareholders	\$ (1.98)	\$ (0.57)	\$ (0.56)	\$ (4.29)
Weighted average number of common shares outstanding	9,822	9,822	9,822	10,695
	Quarter ended March 31, 2003	Quarter ended June 30, 2003	Quarter Ended September 30, 2003	Quarter ended December 31, 2003
Operating revenues	\$ 516	\$ 3,415	\$ 4,688	\$ 2,061
Gross profit	271	2,776	4,301	1,805
Loss from operations	(9,060)	(5,526)	(3,078)	(2,815)
Net loss	(9,039)	(5,994)	(3,833)	(3,911)
Net loss per common share attributable to common shareholders	\$ (1.08)	\$ (0.80)	\$ (0.58)	\$ (0.56)

Edgar Filing: Cambridge Display Technology, Inc. - Form 10-K

Weighted average number of common shares outstanding	9,743	9,710	9,710	9,710
------------------------------------------------------	-------	-------	-------	-------

F-30

**Table of Contents**

**Cambridge Display Technology, Inc.**

**Notes to Consolidated Financial Statements (continued)**

**All amounts in thousands except for per share amounts.**

**Report of Independent Registered Public Accounting Firm**

To the Board of Directors and Stockholders of Litrex Corporation

In our opinion, the balance sheet as of December 31, 2003 and the related statements of operations, of stockholders' equity and of cash flows for the year ended December 31, 2003 (not presented separately herein) present fairly, in all material respects, the financial position of Litrex Corporation at December 31, 2003, and the results of its operations and its cash flows for the year then ended in conformity with accounting principles generally accepted in the United States of America. 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 audit. We conducted our audit of these statements 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, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

/s/ PRICEWATERHOUSECOOPERS LLP

San Jose, California

July 19, 2004

F-31