

IMAGE SENSING SYSTEMS INC
Form 10-K
March 19, 2012

Table of Contents

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549**

FORM 10-K

(Mark one)

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

For the fiscal year ended December 31, 2011

or

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

For the transition period from _____ to _____

Commission file number: 0-26056

Image Sensing Systems, Inc.

(Exact name of registrant as specified in its charter)

Minnesota

(State or other jurisdiction of incorporation or organization)

41-1519168

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

**500 Spruce Tree Centre, 1600 University Avenue West,
St. Paul, MN**

(Address of principal executive offices)

55104

(Zip Code)

(651) 603-7700

(Registrant's telephone number, including area code)

Not applicable.

(Former name, former address and former fiscal year, if changed since last report)

Edgar Filing: IMAGE SENSING SYSTEMS INC - Form 10-K

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

Title of each class	Name of each exchange on which registered
Common Stock, \$0.01 par value	The NASDAQ Capital Market

Securities registered pursuant to Section 12(g) of the Act: None.

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

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

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 x No o

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes x No o

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See the definitions of large accelerated filer, accelerated filer and smaller reporting company in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer o

Accelerated filer o

Non-accelerated filer o

Smaller reporting company x

(Do not check if a smaller reporting company.)

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

As of June 30, 2011, the aggregate market value of the registrant's common stock held by non-affiliates of the registrant was \$33,848,746 based on the closing sale price as reported on The NASDAQ Capital Market. The number of shares outstanding of the registrant's \$0.01 par value common stock as of February 29, 2012 was 4,910,619 shares.

DOCUMENTS INCORPORATED BY REFERENCE

Document	Parts Into Which Incorporated
Proxy Statement for the 2012 Annual Meeting of Shareholders (Proxy Statement)	Part III

TABLE OF CONTENTS

<u>PART I</u>		1
<u>Item 1.</u>	<u>Business</u>	1
<u>Item 1A.</u>	<u>Risk Factors</u>	8
<u>Item 1B.</u>	<u>Unresolved Staff Comments</u>	15
<u>Item 2.</u>	<u>Properties</u>	15
<u>Item 3.</u>	<u>Legal Proceedings</u>	16
<u>Item 4.</u>	<u>Mine Safety Disclosures</u>	16
<u>PART II</u>		17
<u>Item 5.</u>	<u>Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities</u>	17
<u>Item 6.</u>	<u>Selected Financial Data</u>	19
<u>Item 7.</u>	<u>Management's Discussion and Analysis of Financial Condition and Results of Operations</u>	20
<u>Item 7A.</u>	<u>Quantitative and Qualitative Disclosures About Market Risks</u>	27
<u>Item 8.</u>	<u>Financial Statements and Supplementary Data</u>	28
<u>Item 9.</u>	<u>Changes in and Disagreements with Accountants on Accounting and Financial Disclosure</u>	48
<u>Item 9A.</u>	<u>Controls and Procedures</u>	48
<u>Item 9B.</u>	<u>Other Information</u>	48
<u>PART III</u>		49
<u>Item 10.</u>	<u>Directors, Executive Officers and Corporate Governance</u>	49
<u>Item 11.</u>	<u>Executive Compensation</u>	49
<u>Item 12.</u>	<u>Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters</u>	49
<u>Item 13.</u>	<u>Certain Relationships and Related Transactions, and Director Independence</u>	49
<u>Item 14.</u>	<u>Principal Accounting Fees and Services</u>	49
<u>PART IV</u>		50
<u>Item 15.</u>	<u>Exhibits and Financial Statement Schedules</u>	50
<u>Signatures</u>		53

Table of Contents

PART I

Item 1. Business
Business

Image Sensing Systems, Inc. (referred to in this Annual Report on Form 10-K as we, us, our and the Company) develops and markets video and radar image processing products for use in traffic, security, police and parking applications such as intersection control, highway, bridge and tunnel traffic management, venue security, entry control, license plate recognition and traffic data collection.

We are a leading provider of software-based computer enabled detection (CED) products and solutions for the intelligent transportation systems (ITS) industry and adjacent security and law enforcement markets. Our family of products, which we market as Autoscope®, RTMS® and CitySync, provides end users with the tools needed to optimize traffic flow, enhance driver safety, regulate air quality and address security/surveillance concerns. Our technology analyzes signals from sophisticated sensors and transmits the information to management systems and controllers or directly to users.

CED is a process in which software rather than humans examines outputs from various types of sophisticated sensors to determine what is happening in a field of view. In the ITS industry, CED is a critical component of managing congestion and traffic flow. In many markets, it is not possible to build roads, bridges and highways quickly enough to accommodate increasing automobile ownership. For example, in 2007 there were approximately 3.0 million vehicles in Moscow, and the number of vehicles is expected to increase by 50% to 4.5 million vehicles by 2012. In China, 13.8 million vehicles were introduced in 2010, up from the 9.4 million vehicles introduced in 2008. This is expected to rise to 15.0 million in 2012, when total registered automobiles in China will exceed 100 million. We believe this growing use of vehicles worldwide will make CED-based ITS solutions increasingly necessary to complement existing and new roadway infrastructure to manage traffic flow and optimize throughput.

We believe our CED solutions are technically superior to those of our competitors because they have a higher level of accuracy, limit the occurrence of false detection, are generally easier to install with lower costs of ownership, work effectively in a multitude of light and weather conditions, and provide end users the ability to manage inputs from a variety of sensors for a number of tasks. It is our view that the technical advantages of our products make our solutions well suited for use in ITS as well as adjacent security markets. We believe that the market for CED is increasingly favoring converged solutions that include ITS, security/surveillance and environmental management, which we expect to increase demand for CED products such as ours.

We believe the strength of our distribution channels positions us to increase the penetration of our technology-driven solutions in the marketplace. We market our Autoscope products in North America, the Caribbean and Latin America through exclusive agreements with Econolite Control Products, Inc. (Econolite), which we believe is the leading distributor of ITS intersection control products in North America and the Caribbean. In January 2011, we entered into an agreement granting to Econolite and its affiliate, Econolite Canada, Inc., the exclusive right to distribute our RTMS products in Canada. In December 2011, we modified our agreement with Econolite to grant it the exclusive right to manufacture and distribute our RTMS products in the United States and Mexico.

We market our Autoscope and RTMS products outside of North America, the Caribbean and Latin America and our CitySync products through a combination of distribution and direct sales channels, including our wholly-owned subsidiaries in Hong Kong, Poland and the United Kingdom. Our end users primarily include governmental agencies and municipalities, and, as of December 31, 2011, we had sold over 125,000 units in more than 60 countries.

In June 2010, we purchased all of the outstanding equity of CitySync Limited (CitySync). CitySync was a privately-held, European-based developer and marketer of automatic number plate recognition (ANPR) products and solutions. In December 2007, we completed our purchase of certain assets of EIS Electronic Integrated Systems, Inc. (EIS). EIS was a leading provider of radar-based detection solutions. In addition to the increased scale we gain through these transactions, the addition of EIS and CitySync's products and operations expands our addressable markets and selling presence, enables us to provide a wider array of CED products to our end users, and supports the introduction of hybrid product offerings to help drive market demand.

Industry Overview

The Intelligent Transportation Systems Market. ITS encompasses a broad range of information processing and control electronics technologies that, when integrated into roadway infrastructure, help monitor and manage traffic flow, reduce congestion and enhance driver safety. The ITS market has been built around the detection of conditions that impact the proper operation of roadway infrastructure. ITS applications include a wide array of traffic management systems, such as traffic signal control, tolling and variable messaging signs. ITS technologies include video

Edgar Filing: IMAGE SENSING SYSTEMS INC - Form 10-K

vehicle detection, automatic number plate recognition, inductive loop detection, sensing technologies (such as radars), floating cellular data, computational technologies and wireless communications.

Table of Contents

In traffic management applications, CED products are used for automated vehicle detection and are a primary data source upon which ITS solutions are built. Traditionally, automated vehicle detection is performed using inductive wire loops buried in the pavement. However, in-pavement loop detectors are costly to install, difficult to maintain, expensive to repair and not capable of wide-area vehicle detection without installations of multiple loops or of recognizing license plate numbers.

Above-ground CED solutions for ITS offer several advantages to in-pavement loop detectors. Above-ground CED solutions tend to have lower total cost of ownership than in-pavement loop detectors because above-ground CED solutions are non-destructive to road surfaces, do not require closing roadways to install or repair, and are capable of wide-area vehicle detection with a single device, thus enabling one input device to do the work of many in-pavement loops. Due to their location above-ground, CED solutions have no exposure to the wear and tear associated with expanding and contracting pavement and generally less exposure to the vibration and compaction caused by traffic. Furthermore, in the event of malfunction or product failure, above-ground CED solutions can be serviced and repaired without shutting down the roadway. Each of these factors results in greater up-time and increased reliability of above-ground CED solutions compared to in-pavement loop detectors. Above-ground CED solutions also offer a broader set of detection capabilities and a wider field of view than in-pavement loop detectors. For example, unlike in-pavement loops, above-ground CED solutions can detect smoke and debris. In addition, a single unit video- or radar-based CED system can detect and measure a variety of parameters, including vehicle presence, counts, speed, length, time occupancy, headway and flow rate as well as environmental factors and obstructions to the roadway. An equivalent installation using loops would require many installations per lane.

We believe our Autoscope and RTMS products are competitive with and can take market share from in-pavement loop detectors. Based on our determination, the U.S. ITS above-ground detection market sales in 2011 were approximately \$100 to \$120 million and the worldwide ITS above-ground detection market was approximately \$200 million. We believe that we are the leader in the U.S. above-ground detection market in terms of sales volume, and we estimate that U.S. sales of in-pavement loop detectors that our Autoscope and RTMS products can supplant were approximately \$250 million in 2011.

Our CitySync solutions add further to our offerings in ITS. In many ITS applications, such as tolling or journey time measurement, it is critical to ascertain the identity of the vehicle or to be able to uniquely identify a vehicle at a different time or location. ANPR is among the most widely used methods for these applications.

We believe that several trends are driving the growth in ITS and adjacent market segments:

Proliferation of Traffic. In many countries, there has been a surge in the number of vehicles on roadways. Due to the growth of emerging economies and elevated standards of living, more people desire and are able to afford automobiles. The number of vehicles utilizing the world's roadway infrastructure is growing at a quicker pace than new roads, bridges and highways are being constructed. The population of the United States has grown by about 30%, or 70 million, from 1982 to 2007, while highway miles have increased by approximately 5% in the same period. Between 1970 and 2007, the number of registered highway vehicles in the U.S. increased from 111 million to 255 million. Overall, the growth in roadway infrastructure is failing to match the surge in the number of vehicles using it. CED-based traffic management and control systems address the problem by monitoring high traffic areas and analyzing data that can be used to mitigate traffic problems.

The Demographics of Urbanization. Accelerated worldwide urbanization drives the creation and expansion of middle classes and produces heightened demand for automobiles. Currently, there are at least 400 cities in the world with over 1 million people. Since automobiles can be introduced to a metropolitan area faster than roadway infrastructure can be constructed, the result is continuously worsening traffic. Because expanding the roadway infrastructure is slow and costly to implement, and often environmentally undesirable, government agencies are increasingly turning to technology-based congestion solutions that optimize performance and throughput of existing and new roadway infrastructure. Detection is the requisite common denominator for any technology-based solution.

The Melding of Large City Service Domains. Large cities require a wide range of service domains, including traffic, security/surveillance and environmental protection. These cities are increasingly turning to centralized management of these service domains, employing a command and control model that requires sharing and integrating data across service domains to operate effectively so called Smart Cities initiatives. For example, data collected for the traffic management service domain is relevant to all of the other service domains. This means that each CED sensor can supply information to multiple domain services. In turn, the sharing of detection information across service domains should increase the level of sophistication required to process and interpret that information.

Advances in Wireless Technology Create the Ubiquitous Network. Businesses and government entities, motivated by the need for improved productivity and functionality, are increasingly adopting pervasive, networked information systems. The internet and widely available broadband networks, including recent advances in wireless technologies such as mesh networks, have greatly reduced the deployment costs of adding broadly distributed CED solutions to existing information systems. The lower cost of deployment should increase demand for CED.

Table of Contents

The Ascendancy of CED. Electronics of all sorts are becoming smaller and less costly to manufacture, while becoming more capable of performing certain complicated tasks than humans. CED solutions benefit from these trends. Of particular significance is the hybrid detection in which two or more sensing types such as radar and video are combined in a common CED device in which the weaknesses of each are synergistically offset by the strengths of the other. By leveraging a common digital signal processor and network interface, we believe the incremental cost of a hybrid device will be significantly lower than deploying multiple, single-sensor CED devices. This makes the concepts of rich sensing and instrumenting the city through CED solutions cost effective, which we believe will result in the extensive proliferation of sophisticated sensors and detection devices.

The non- ITS Automatic Number Plate Recognition Market. In addition to ITS, ANPR is widely used for applications in security, police and parking, among others. We believe the sum of these markets is significant and currently is in excess of \$200 million for their ANPR components. We also believe the competitive landscape is fragmented, with no dominant market share for any one competitor.

Security. ANPR is used in security applications world-wide for border crossings, airports and venues such as convention centers and sports arenas. Additionally, private industry uses ANPR to help control entrances at high value locations, such as power plants. Homeland security and counter-terrorism activities benefit from ANPR as part of the solution.

Police. Law enforcement has adopted ANPR for a variety of applications. Police may use ANPR to gather information on a stopped vehicle in a faster, automated fashion. ANPR can scan for vehicles of interest from a fixed position or from a moving police vehicle, looking for stolen cars or for automobiles of individuals with arrest warrants outstanding. Also, ANPR is regularly used as a component of red light, speed and bus lane enforcement systems.

Parking. Both public and private parking facilities have recently undergone a significant period of automation where human attendants have been replaced by machines that control access. ANPR is employed in numerous parking functions, including automatic entrance/exit, open spot locator assistance, lost vehicle location, theft-avoidance and related security aspects.

Solutions for Adjacent Markets. We believe that the adjacent markets of ITS, security/surveillance and environmental management are converging, and that this convergence will accelerate as CED systems become more cost-effective now that a single CED unit can be used for multiple purposes. Because the CED technologies involved are closely related, our CED technology can be adapted to or is already capable of addressing these adjacent markets.

We believe that environmental management systems will become a necessity, especially in large cities where the costs of air pollution are being increasingly borne by city residents. Long traffic delays result in idling vehicles that have adverse effects on urban areas. In conjunction with video detection for ITS, CED products can help governmental agencies reduce air pollution and energy consumption by controlling traffic flow and reducing travel time, accidents and delays. The convergence of traffic, security/surveillance and environmental management should drive significant continued CED demand growth.

Our Competitive Strengths

We are a leading provider of software-based CED products and solutions for the ITS industry and related security and law enforcement markets. We have the following competitive strengths that we expect will continue to enhance our leadership position:

Leading Proprietary Technologies. Over the last two decades, we have developed or acquired a proprietary portfolio of complex software algorithms and applications that we have continuously enhanced and refined. These algorithms, which include our advanced signal processing technologies, allow our video and radar detection products to capture and analyze objects in diverse weather and lighting conditions and to balance the accuracy of positive detection and the avoidance of false detections. Due to the strength of our proprietary technologies, we believe we command premium pricing. CED technologies similar to ours are also difficult to develop and refine in a commercially viable manner. We therefore should be well positioned to quickly introduce next-generation products to market.

Proven Ability to Develop, Enhance and Market New Products. We are continually developing and enhancing our product offerings. Over the last two decades, we have demonstrated our ability to lead the market with new products and product enhancements. For example, the Autoscope Solo system was the first fully integrated color camera, zoom lens and machine vision processor in the above-ground detection market. EIS was one of the first companies to introduce radar-based technology solutions for ITS applications, and it has continued to lead the market with technology enhancements and new products, such as RTMS. Additionally, the CitySync system was the first in the ANPR market to capture multiple license plates in the same lane with a standard configuration. Furthermore, our newly developed hybrid product, Autoscope@Duo, is the first commercial product to combine video and radar capabilities in a single unit to improve accuracy and gives us an entrée to significantly expand our accessible market by continuing to drive the conversion from legacy loop detection to above-ground detection. We have successfully collaborated with our long-term channel partners to market these new products. We believe that developing, enhancing and marketing new products with our partners translates into strong organic revenue growth and high levels of profitability.

Table of Contents

Leading Distribution Channel. We have maintained a relationship with Econolite for the exclusive manufacture and distribution of our Autoscope products in North America and the Caribbean since 1991 and in Latin America since 2002. We have now expanded this relationship to include the manufacture and distribution of our RTMS products in the United States, Canada and Mexico. We believe that Econolite is the leading distributor of ITS control products in North America and the Caribbean. This relationship enhances our ability to commercialize and market new products and allows us to focus more resources on developing advanced signal processing software algorithms.

Broad Product Portfolio. Our product portfolio leverages our core software-based algorithms for CED to enable end users to detect and monitor objects in a designated field of view. We believe that our family of Autoscope, RTMS and CitySync products allows us to offer a broad product portfolio that meets the needs of our end users. Additionally, our intention is to use our broad product portfolio to offer hybrid products that satisfy traffic, security/surveillance and environmental management requirements, such as Autoscope@Duo .

Experienced Management Team and Engineering Staff. Our management team and engineering staff are highly experienced in the ITS and software industries. Additionally, the continuity of our engineering staff should allow us to continuously develop new or improved products.

Our Growth Strategy

As part of our growth strategy, we seek to:

Enhance and Extend Our Technology Leadership in ITS. We believe we have established ourselves as a leading provider of CED in the ITS market segment. We believe that we continue to have an opportunity to accelerate our growth. We plan to do this by improving the accuracy and functionality of our products and opportunistically expanding our product offering into adjacent markets, as well as expanding our portfolio and channels through licensing. Having recently developed and introduced a hybrid CED product, Autoscope@Duo , we expect to take advantage of our technical leadership in ITS and further differentiate us from our competitors.

Expand ANPR Markets. We believe that the ANPR market is poised for growth at a higher rate than the ITS market. Further, we believe that our financial strength, distribution channels and customer base will add to our ability to grow CitySync related revenue. We believe these synergies could lead to above average revenue growth.

Expand into Adjacent Markets. Our core skill is the implementation of software-based CED products and solutions. Over the past two decades, we have been developing and refining our complex signal processing software algorithms. We should be able to effectively utilize our core software skills more broadly as markets, including security/surveillance and environmental management systems, converge. We believe that a driver of this convergence is that CED systems will become more cost-effective when a single CED unit can be used for multiple purposes. As a result, our objective is to become the leading supplier of critical CED components to third party management systems, particularly those that exploit the convergence of traffic, security/surveillance and environmental management systems. To do this, we are integrating this concept into our long-range engineering development road-map and will evaluate the use of technology licensing and channel strategies that support this vision.

Increase the Scope of Our Distribution and Direct Sales. We have made substantial investments in product adjustments to tailor our solutions to the differing needs of our international end users and in new product acquisitions for both domestic and international markets. We have also invested in sales and marketing expansion, with a focus on our European and Asian subsidiaries. The addition of CitySync brought further critical mass to our European organization. Markets in Eastern Europe, the Asia/Pacific region, the Middle East, Africa and South America, which have historically lagged North America and Western Europe in their use of CED, have recently begun to increase the adoption of CED in their traffic, security/surveillance and environmental management systems. We intend to continue to refine our product offerings through engineering development and technology licensing to take advantage of the accelerated pace of the adoption of CED throughout the developing world.

Table of Contents

Our Products and Solutions

Our vehicle and traffic detection products are critical components of many ITS and adjacent security and law enforcement applications. Our Autoscope video systems and RTMS radar systems convert sensory input collected by video cameras and radar units into vehicle detection and traffic data used to operate, monitor and improve the efficiency of roadway infrastructure. Our CitySync systems use video sensors in the visible and infrared spectrums to read license or number plates for tolling, traffic data, security, police and parking applications. At the core of each product line are proprietary digital signal processing algorithms and sophisticated embedded software that analyze sensory input and deliver actionable data to integrated applications. We invested approximately \$4.4 million, \$3.6 million and \$3.3 million on research and development in 2011, 2010 and 2009, respectively, to develop and enhance our product technology. Our digital signal processing software algorithms represent a foundation on which support for additional sensory inputs such as acoustic, chemical, smoke, weather and vibration sensors may be added in the future. A diagram displaying our fundamental product architecture is shown below.

The Image Sensing Product Architecture

Autoscope. Our Autoscope system processes video input from a traffic scene in real time and extracts the required traffic data, including vehicle presence, counts, speed, length, time occupancy (percent of time the detection zone is occupied), average headway (time interval between vehicles) and flow rate (vehicles per hour per lane). Autoscope supports a variety of standard video cameras or can be purchased with an integrated video camera. For intersections, the system communicates with the intersection signal controller, which changes the traffic lights based on the data provided. In highway applications, the system gathers vehicle count and flow rates and detects anomalous incidents, such as stopped or wrong-way vehicles. In tunnel safety applications, Autoscope provides alerts to operators upon detecting stopped, wrong-way or slow moving vehicles and upon detecting pedestrians, debris or smoke. In any application, the data may also be transmitted to a traffic management center via the internet or other standard communication means and processed in real time to assist in traffic management and stored for later analysis for traffic planning purposes.

The Autoscope system comes in two varieties. Autoscope Encore and its predecessor, Solo Terra, are our integrated units with color zoom camera and machine vision processing computer contained in a compact housing that is our leading offering in the North American market. Autoscope RackVision is our card only machine vision processing computer that is located in an intersection signal controller, control hub, incident management center or traffic management center that receives video from a separate camera. The RackVision and its variants are our top selling Autoscope products in international markets. Autoscope products offer digital MPEG-4 video streaming, high speed Ethernet interface, web browser maintenance and data and video over power line communications.

RTMS. Our RTMS systems use radar to measure vehicle presence, volume, occupancy, speed and classification information for roadway monitoring applications. Data is transmitted to a central computer at a traffic management center via standard communication means, including wireless. Data can be processed in real time to assist in traffic management and stored for later analysis for traffic planning purposes.

RTMS is an integrated radar transmitter/receiver and special purpose computer contained in a compact, self-contained unit. The unit is typically situated on roadway poles and side-fired, making it especially well-suited for highway detection applications.

CitySync. Our CitySync systems process video information gathered from the visible and infrared spectrum to perform ANPR for ITS, security, police and parking applications. Data is transmitted to other integrated systems or stored in onboard vehicle systems for later processing. Data can be processed to assist in traffic and parking management, tolling applications, real-time law enforcement and traffic alerts and stored for later analysis for traffic, security and commercial purposes.

Edgar Filing: IMAGE SENSING SYSTEMS INC - Form 10-K

Table of Contents

At the core of each CitySync system is the JetBase software suite which runs the ANPR algorithms and related processes, including communications. JetBase operates with both non-proprietary and proprietary cameras. We offer a range of proprietary analog, high definition and intelligent cameras for both fixed and mobile systems.

Hybrid. Video detection is best suited to applications in which the ability to act on complex and detailed information is desired. However, video can encounter difficulties in poorly-lit environments, in adverse weather conditions (such as fog or driving snow), in situations in which vehicles are obscured (for example, by other vehicles), or in extraordinarily dirty environments in which airborne particulates obscure the view. Also, despite the compensating factors of using high-quality color video, video can be susceptible to false detections due to shadows or reflections. Radar is less able to distinguish fine details than video but is considerably less affected by adverse environmental conditions and, to some degree, can see through certain kinds of obstructions. It also does not recognize shadows or visual reflections.

By combining video and radar sensors and algorithmically comparing their outputs in our new hybrid Autoscope@Duo product, we believe we are able to offer our end users a product that provides superior accuracy. This hybrid CED detector is able to coalesce the strengths of each type of sensor to overcome the other's limitations. The result is improved overall performance in a broader range of circumstances, allowing us access to a larger market.

Distribution, Sales and Marketing

We market and sell our products globally. As of December 31, 2011, we had supplied systems for more than 125,000 units in more than 60 countries. Together with our partners, we offer a combination of high-performance CED technology and experienced local support. Our end users primarily consist of federal, state, city and county departments of transportation, port, highway, tunnel, toll and other transportation authorities, law enforcement agencies and parking facility operators. The decision-makers within these entities typically are traffic planners and engineers, who in turn often rely on consulting firms that perform planning and feasibility studies. Our products sometimes are sold directly to system integrators or other suppliers of systems and services who are operating under subcontracts in connection with major road construction contracts.

Autoscope and RTMS North American, Caribbean and Latin American Sales. We have granted Econolite an exclusive right to manufacture, market and distribute the Autoscope system in North America, the Caribbean and Latin America. In January 2011, we entered into an agreement granting to Econolite and its affiliate, Econolite Canada, Inc., the exclusive right to distribute our RTMS products in Canada. In December 2011, we modified our agreement with Econolite to grant it the exclusive right to manufacture and distribute our RTMS products in the United States and Mexico. The agreements with Econolite grant it a first refusal right that arises when we make a proposal to Econolite to extend the license to additional products in North America, the Caribbean and Latin America and a first negotiation right that arises when we make a proposal to Econolite to include rights corresponding to Econolite's rights under our current agreements in countries not in these territories. Econolite provides the marketing and technical support needed for its sales in these territories. Econolite pays us a royalty on the revenue derived from its sales of the Autoscope system. Beginning in January 2011, Econolite began paying us a royalty on RTMS sales in Canada and, in January 2012, on sales of RTMS products in the United States and Mexico. We cooperate in marketing Autoscope and RTMS products with Econolite for North America, the Caribbean and Latin America and provide second-tier technical support. We have the right to terminate our agreements with Econolite if it does not meet minimum annual sales levels or if Econolite fails to make payments as required by the agreements. In 2008, the term of the original agreement with Econolite, as amended, was extended to 2031. The term of the agreement with Econolite to manufacture and distribute our RTMS products in Canada expires in 2028. The agreements can be terminated by either party upon three years' notice.

CitySync North American, Caribbean and Latin American Sales. We market the CitySync systems to a network of distributors covering countries in North America, the Caribbean and Latin America. On a limited basis, we sell directly to the end user. We provide technical support to these distributors from our various North American locations.

European, Asian and African Sales. We market Autoscope, RTMS and CitySync to a network of distributors covering countries in Europe, the Middle East, Africa and Asia through our wholly-owned subsidiaries that have offices in Hong Kong, Poland and the United Kingdom. On a limited basis, we sell directly to the end user. Technical support to these distributors is provided by our wholly-owned subsidiaries in Europe and Asia, with second-tier support provided by our engineering groups. From time to time, we may grant exclusive rights to Econolite for markets outside of our significant markets for certain jurisdictions or product sales based on facts and circumstances related to the opportunities.

Competition

We compete with companies that develop, manufacture and sell traffic management devices using video and radar sensing technologies as well as other above-ground CED technologies based on laser, infrared and acoustic sensors. For ITS applications, we also compete with providers of in-pavement loop detectors and estimate that more than 70% of the traffic management systems currently in use in the U.S. use in-pavement loop detectors. For competition with other above-ground CED products, we typically compete on performance and functionality, and to a lesser extent on price. When competing against providers of loop detectors, we compete principally on ease of installation and the total cost of

ownership over a multi-year period, and to a lesser extent on functionality.

Table of Contents

Among the companies that provide direct competition to Autoscope worldwide are Traficon N.V., Signal Group Inc. (Semex), Iteris, Inc. and Citilog S.A. Among the companies that provide direct competition to RTMS worldwide are Wavetronix, LLC, MS Sedco Inc. and Xtralis, LLC. Among the companies that provide direct competition to CitySync worldwide are Federal Signal Corporation (PIPS), Perceptics LLC, Genetec Inc. and Elsasg Datamat S.p.a. All of these companies have working installations of their systems in the U.S. and other parts of the world. To our knowledge, Autoscope and RTMS have the largest number of installations as compared to their direct competitors. In addition, there are smaller local companies providing direct competition in specific markets throughout the world. We are aware that these and other companies will continue to develop technologies for use in traffic management, security, police and parking applications. One or more of these technologies could in the future provide increased competition for our systems.

Other potential competitors of which we are aware include Siemens AG, Cognex Corp., Augusta Technologie AG, Matsushita Electric Industrial Co., Ltd. (Panasonic), Sumitomo Corporation, Omron Electronics LLC and 3M Company. These companies have machine vision or radar capabilities and have substantially more financial, technological, marketing, personnel and research and development resources than we have.

Manufacturing

Autoscope products for sale under the Econolite license agreement are manufactured through agreements with Econolite and Wireless Technology, Inc. In January 2011, we entered into an agreement with Econolite to distribute our RTMS products in Canada. In December 2011, our original agreement with Econolite was amended to include the exclusive manufacture and distribution of RTMS products in the United States and Mexico beginning on January 1, 2012. Econolite is responsible for setting warranty terms and must provide all service required under this warranty. In Europe and Asia, we engage contract manufacturers to manufacture the Autoscope family of products.

Until January 2012, we engaged contract manufacturers to produce subassemblies for our RTMS products based on our designs. These subassemblies were then shipped to our facilities in Toronto, where we performed final assembly, testing and calibration and packaging of finished units for shipment. We also performed warranty and post-warranty repairs of RTMS units in Toronto. Beginning in January 2012, Econolite is responsible for setting warranty terms and must provide all service required under this warranty for RTMS products for product sales in North America. For RTMS product sales made before December 31, 2011, we continue to perform warranty and post-warranty repairs of RTMS units in Toronto. For Europe and Asia product sales, we engage contract manufacturers to manufacture the RTMS family of products and perform warranty and post-warranty repairs.

CitySync products are manufactured through contract manufacturers in the United Kingdom and the United States.

We typically provide a two-year warranty on our products.

Most of the hardware components used to manufacture our products are standard electronics components that are available from multiple sources. Although some of the components used in our products are obtained from single-source suppliers, we believe other component vendors are available should the necessity arise. The European Parliament has enacted a directive for the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS). To our knowledge, our contract manufacturing and component vendors in Europe and Asia comply with the European directive on RoHS.

Intellectual Property

To protect our rights to our proprietary know-how, technology and other intellectual property, it is our policy to require all employees and consultants to sign confidentiality agreements that prohibit the disclosure of confidential information to any third parties. These agreements also require disclosure and assignment to us of any discoveries and inventions made by employees and consultants while they are devoted to our business activities. We also rely on trade secret, copyright and trademark laws to protect our intellectual property. We have also entered into exclusive and non-exclusive license and confidentiality agreements relating to its own and third-party technologies. We aggressively protect our processes, products, and strategies as proprietary trade secrets. Our efforts to protect intellectual property and avoid disputes over proprietary rights include ongoing review of third-party patents and patent applications.

Environmental Matters

We believe our operations are in compliance with all applicable environmental regulations within the jurisdictions in which it operates.

Table of Contents

Employees

As of December 31, 2011, we had 131 employees, consisting of 75 employees in North America, 44 employees in Europe and 12 employees in Asia. None of our employees is represented by a union.

Item 1A. Risk Factors
Information Regarding Forward-Looking Statements

This Annual Report on Form 10-K contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Forward-looking statements represent our expectations or beliefs concerning future events and can be identified by the use of forward-looking words such as believes, may, will, should, intends, plans, or anticipates or other comparable terminology. Forward-looking statements are subject to risks and uncertainties that may cause our actual results to differ materially from the results discussed in the forward-looking statements. Some factors that might cause these differences include the factors listed below. Although we have attempted to list these factors comprehensively, we wish to caution investors that other factors may prove to be important in the future and may affect our operating results. New factors may emerge from time to time, and it is not possible to predict all of these factors, nor can we assess the effect each factor or combination of factors may have on our business.

We further caution you not to unduly rely on any forward-looking statements, because they reflect our views only as of the date the statements were made. We undertake no obligation to publicly update or revise any forward-looking statements whether as a result of new information, future events or otherwise.

If governmental entities elect not to use our products due to budgetary constraints, project delays or other reasons, our revenue may fluctuate severely or be substantially diminished.

Our products are sold primarily to governmental entities. We expect that we will continue to rely substantially on revenue and royalties from sales of our systems to governmental entities. In addition to normal business risks, it often takes considerable time before governmental initiated projects are developed to the point at which a purchase of our systems would be made, and a purchase of our products also may be subject to a time-consuming approval process. Additionally, governmental budgets and plans may change without warning. Other risks of selling to governmental entities include dependence on appropriations and administrative allocation of funds, changes in governmental procurement legislation and regulations and other policies that may reflect political developments, significant changes in contract scheduling, competitive bidding and qualification requirements, performance bond requirements, intense competition for government business and termination of purchase decisions for the convenience of the governmental entity. Substantial delays in purchase decisions by governmental entities, or governmental budgetary constraints, could cause our revenue and income to drop substantially or to fluctuate significantly between fiscal periods.

A majority of our gross profit has been generated from sales of our Autoscope family of products, and if we do not maintain the market for these products, our business will be harmed.

Historically, a majority of our gross profit has been generated from sales of, or royalties from the sales of, Autoscope products. Gross profit from Autoscope sales accounted for approximately 71% of our gross profit in 2011, 63% in 2010 and 73% in 2009. We anticipate that gross profit from the sale of Autoscope systems will continue to account for a substantial portion of our gross profit for the foreseeable future. As such, any significant decline in sales of our Autoscope system would have a material adverse impact on our business, financial condition and results of operations.

If Econolite's sales volume decreases or if it fails to pay royalties to us in a timely manner or at all, our financial results will suffer.

We have agreements with Econolite under which Econolite is the exclusive distributor of the Autoscope system in North America, the Caribbean and Latin America and the RTMS products in the United States, Canada and Mexico. The agreements grant Econolite a first refusal right that arises when we make a proposal to Econolite to extend the license to additional products in North America, the Caribbean and Latin America. In addition, the agreements grant Econolite a first negotiation right that arises when we make a proposal to Econolite to include rights corresponding to Econolite's rights under our current agreements in countries not in these territories. In exchange for its rights under the agreements, Econolite pays us royalties for sales of the Autoscope system and the RTMS products. Since 2002, a substantial portion of our revenue has consisted of royalties resulting from sales made by Econolite, including 43% in 2011, 40% in 2010 and 49% in 2009. Econolite's account receivable represented 42% of our accounts receivable at December 31, 2011 and 25% of our accounts receivable at December 31, 2010. We expect that Econolite will continue to account for a significant portion of our revenue for the foreseeable future. Any decrease in Econolite's sales volume could significantly reduce our royalty revenue and adversely impact earnings. A failure by Econolite to make royalty

Edgar Filing: IMAGE SENSING SYSTEMS INC - Form 10-K

payments to us in a timely manner or at all will harm our financial condition. In addition, we believe sales of our products are a material part of Econolite's business, and any significant decrease in Econolite's sales of the other products it sells could harm Econolite, which could have a material adverse effect on our business and prospects.

Table of Contents

The features and functions in our products have not been as widely utilized as traditional products offered by our competitors, and the failure of our end users to accept the features and functions in our products could adversely affect our business and growth prospects.

Video and radar technologies have not been utilized in the traffic management industry as extensively as other more traditional technologies, mainly in-pavement loop detectors. Our financial success and growth prospects depend on the continued development of the market for advanced technology solutions for traffic detection and management and the acceptance of our current Autoscope, RTMS and CitySync systems and also future systems we may develop as reliable, cost-effective alternatives to traditional vehicle detection systems. We cannot assure you that we will be able to utilize our technology profitably in other products or markets. If our end users do not continue to increase their acceptance of the features and functions provided by our current systems or other systems we may develop in the future, our business and growth prospects could be adversely affected.

Existing and future laws, regulations and constitutional provisions protecting privacy rights could delay the acceptance and sale of our video and ANPR products and systems and have a negative effect on our financial condition and results of operations.

The use of video and ANPR products and systems has been challenged and limited under existing laws, regulations and constitutional provisions protecting privacy rights. For example, both Maine and New Hampshire have laws limiting the use of ANPR systems. In addition, laws, regulations and constitutional provisions may be adopted in the future to limit the use of video and ANPR products and systems. These existing and new laws, regulations and constitutional provisions could negatively affect the acceptance and sale of our video and ANPR products and systems and thus have a negative effect on our financial condition and results of operations.

Our operating costs tend to be fixed, while our revenue tends to be seasonal, thereby resulting in operating results that fluctuate from quarter to quarter.

Our expense levels are based in part on our product development efforts and our expectations regarding future revenues and, in the short-term, are generally fixed. Our quarterly revenues, however, have varied significantly in the past, with our first quarter historically being the weakest due to weather conditions in parts of North America, Europe and Asia that make roadway construction more difficult. Additionally, our international revenues have a significant large project component, resulting in a varying revenue stream. We expect the seasonality of our revenue and the fixed nature of our operating costs to continue in the foreseeable future. Therefore, we may be unable to adjust our spending in a timely manner to compensate for any unexpected revenue shortfall. As a result, if anticipated revenues in any quarter do not occur or are delayed, our operating results for the quarter would be disproportionately affected. Operating results also may fluctuate due to factors such as the demand for our products; product life cycle; the development, introduction and acceptance of new products and product enhancements by us or our competitors; changes in the mix of distribution channels through which our products are offered; changes in the level of operating expenses; end user order deferrals in anticipation of new products; competitive conditions in the industry; and economic conditions generally. No assurance can be given that we will be able to achieve or maintain profitability on a quarterly or annual basis in the future.

Increased competition may make it difficult for us to acquire and retain end users. If we are unsuccessful in developing new applications and product enhancements, our products may become noncompetitive or obsolete.

Competition in the areas of ITS, security and parking management is continuing to grow. Some of the companies that may compete with us in the business of developing and implementing traffic control and related security systems have substantially more financial, technological, marketing, personnel and research and development resources than we have. Therefore, they may be able to respond more quickly than we can to new or changing opportunities, technologies, standards or end user requirements. If we are unable to compete successfully with these companies, the market share for our products will decrease, and competitive pressures may seriously harm our business.

Additionally, the market for vehicle detection and ANPR is continuously seeking more advanced technological solutions to problems. Technologies such as embedded loop detectors, pressure plates, pneumatic tubes, radars, lasers, magnetometers, acoustics and microwaves that have been used as traffic sensing devices in the past are being enhanced for use in the traffic management industry, and new technologies may be developed. We are aware of several companies that are developing traffic management devices using machine vision technology or other advanced technology. Floating vehicle and/or radio frequency identification (RFID) tagged license plate initiatives are under consideration and may be implemented. We expect to face increasingly competitive product developments, applications and enhancements. New technologies or applications in traffic control systems from other companies may provide our end users with alternatives to our products and could render our solutions noncompetitive or obsolete. If we are unable to increase the number of our applications and develop and commercialize product enhancements and applications in a timely manner that respond to changing technology and satisfy the needs of our end users, our business and financial results will suffer.

Edgar Filing: IMAGE SENSING SYSTEMS INC - Form 10-K

Table of Contents

We may not achieve our growth plans for the expansion of our business.

In addition to market penetration, our long-term success depends on our ability to expand our business through new product development, mergers and acquisitions, and/or geographic expansion.

New product development requires that we maintain our ability to improve existing products, continue to bring innovative products to market in a timely fashion, and adapt products to the needs and standards of current and potential customers. Our products and services may become less competitive or eclipsed by technologies to which we do not have access or which render our solutions obsolete.

Geographic expansion will be primarily outside of the U.S., and hence will be disproportionately subject to the risks of international operations discussed in this Annual Report on Form 10-K.

Mergers and acquisitions will be accompanied by risks which may include:

- difficulties identifying suitable acquisition candidates at acceptable costs;
- unavailability of capital to conduct acquisitions;
- failure to achieve the financial and strategic goals for the acquired and combined businesses;
- difficulty assimilating the operations and personnel of the acquired businesses;
- disruption of ongoing business and distraction of management from the ongoing business;
- dilution of existing shareholders and earnings per share;
- unanticipated, undisclosed or inaccurately assessed liabilities, legal risks and costs; and
- difficulties retaining our key vendors, customers or employees or those of the acquired business.

In addition, acquisitions of businesses having a significant presence outside the U.S. will increase our exposure to the risks of international operations discussed in this Annual Report on Form 10-K.

Our dependence on third parties for manufacturing and marketing our products may prevent us from meeting customers' needs in a timely manner.

We do not have, and do not intend to develop in the near future, internal capabilities to manufacture our products. We have entered into agreements with Econolite and Wireless Technology, Inc. ("WTI") to manufacture the Autoscope system, the RTMS products and related products for sales in North America, the Caribbean and Latin America. We have entered into agreements with Hansatech EMS Limited ("Hansatech") to manufacture the ANPR systems. We work with suppliers, most of whom are overseas, to manufacture the rest of our products. We also need to comply with the European Union's regulatory RoHS directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment. If Econolite, WTI, Hansatech or our other suppliers are unable to manufacture our products in the future, we may be unable to identify other manufacturers able to meet product and quality demands in a timely manner or at all. Our inability to find suitable manufacturers for our products could result in delays or reductions in product shipments, which in turn may harm our business reputation and results of operations. In addition, we have granted Econolite the exclusive right to market the Autoscope system and related products in North America, the Caribbean and Latin America and the RTMS products in the United States, Canada and Mexico. Consequently, our revenue depends to a significant extent on Econolite's marketing efforts. Econolite's inability to effectively market the Autoscope system or the RTMS products, or the disruption or termination of that relationship, could result in reduced revenue and market share for our products.

We and our third party manufacturers obtain some of the components of our products from a single source, and an interruption in the supply of those components may prevent us from meeting customers' needs in a timely manner and could therefore reduce our sales.

Although substantially all of the hardware components incorporated into our products are standard electronics components that are available from multiple sources, we and our third party manufacturers obtain some of the components from a single source. The loss or interruption of any of these supply sources could force us or our manufacturers to identify new suppliers, which could increase our costs, reduce our sales and profitability, or harm our customer relations by delaying product deliveries.

New regulations related to the use of conflict-free minerals may increase our costs and cause us to incur additional expenses.

Edgar Filing: IMAGE SENSING SYSTEMS INC - Form 10-K

The Dodd-Frank Wall Street Reform and Consumer Protection Act contains provisions to improve the transparency and accountability of the use by public companies in their products of minerals mined in the Democratic Republic of Congo and adjoining countries and to prevent the sourcing of such conflict minerals. As a result, the Securities and Exchange Commission has proposed new annual disclosure and reporting requirements for public companies who use these minerals in their products, which may apply to us. The final rules are expected to be adopted in the first half of 2012, and they will take effect after our first full year following their adoption. Under the final rules, we may have to conduct due diligence to determine the source of any conflict minerals used in our products. Because our supply chain is broad-based and complex, we may not be able to easily verify the origins for all minerals used in our products, and the due diligence costs could be significant. In addition, the new rules could reduce the number of suppliers who provide components and products containing conflict-free minerals and thus could increase the cost of the components used in manufacturing our products and the costs of our products to us. Any increased costs and expenses could have a material adverse impact on our financial condition and results of operations.

Table of Contents

Some of our products are covered by our warranties, and, if the cost of fulfilling these warranties exceeds our warranty allowance, it could adversely affect our financial condition and results of operations.

Unanticipated warranty and other costs for defective products could adversely affect our financial condition and results of operations and our reputation. We generally provide a two-year warranty on our product sales. These warranties require us to repair or replace faulty products, among other customary warranty provisions. Although we monitor our warranty claims and provide an allowance for estimated warranty costs, unanticipated claims in excess of the allowance could have a material adverse impact on our financial condition and results of operations. In addition, the need to repair or replace products with design or manufacturing defects could adversely affect our reputation.

We may face increased competition if we fail to adequately protect our intellectual property rights, and any efforts to protect our intellectual property rights may result in costly litigation.

Our success depends in large measure on the protection of our proprietary technology rights. We rely on trade secret, copyright and trademark laws, confidentiality agreements with employees and third parties, and patents, all of which offer only limited protection. We cannot assure you that the scope of these protective measures will exclude competitors or provide a competitive advantages to us. We also cannot assure you that we will become aware of all instances in which others develop similar products, duplicate any of our products, or reverse engineer or misappropriate our proprietary technology. If our proprietary technology is misappropriated, our business and financial results could be adversely affected. Litigation may be necessary in the future to enforce our intellectual property rights, to protect our trade secrets or to determine the validity and scope of the proprietary rights of others. In addition, we may be the subject of lawsuits by others who claim we violate their intellectual property rights.

Intellectual property litigation is very costly and could result in substantial expense and diversions of our resources, either of which could adversely affect our business and financial condition and results of operations. In addition, there may be no effective legal recourse against infringement of our intellectual property by third parties, whether due to limitations on enforcement of rights in foreign jurisdictions or as a result of other factors.

We have not applied for patent protection in all countries in which we market and sell our products. Consequently, our proprietary rights in the technology underlying our systems in countries other than the U.S. will be protected only to the extent that trade secret, copyright or other non-patent protection is available and to the extent we are able to enforce our rights. The laws of other countries in which we market our products may afford little or no effective protection of our proprietary technology, which could harm our business.

We plan to continue introducing new products and technologies and may not realize the degree or timing of benefits we initially anticipated, which could adversely affect our business and results of operations.

We regularly invest substantial amounts in research and development efforts that pursue advancements in a range of technologies, products and services. Our ability to realize the anticipated benefits of these advancements depends on a variety of factors, including meeting development, production, certification and regulatory approval schedules; the execution of internal and external performance plans; the availability of supplier-produced parts and materials; the performance of suppliers and vendors; achieving cost efficiencies; the validation of innovative technologies; and the level of end user interest in new technologies and products. These factors involve significant risks and uncertainties. We may encounter difficulties in developing and producing these new products and may not realize the degree or timing of benefits initially anticipated. In particular, we cannot predict with certainty whether, when or in what quantities our current or potential end users will have a demand for products currently in development or pending release. Moreover, as new products are announced, sales of current products may decrease as end users delay making purchases until such new products are available. Any of the foregoing could adversely affect our business and results of operations.

Our business could be adversely affected by product liability and commercial litigation.

Our products or services may be claimed to cause or contribute to personal injury or property damage to our customers' employees or facilities. Additionally, we are, at times, involved in commercial disputes with third parties, such as customers, vendors and others. The ensuing claims may arise singularly, in groups of related claims, or in class actions involving multiple claimants. Such claims and litigation are frequently expensive and time-consuming to resolve and may result in substantial liability to us, which liability and related costs and expenses may not be recoverable through insurance or any other forms of reimbursement.

Table of Contents

We price certain of our products at a premium compared to other technologies. As such, we may not be able to quickly respond to emerging low-cost competitors, and our inability to do so could adversely affect revenue and profitability.

We price certain of our products at a premium as compared to products using less sophisticated technologies. As the technological sophistication of our competitors and the size of the market increase, competing low-cost developers of machine vision products for traffic are likely to emerge and grow stronger. If end users prefer low-cost alternatives over our products, our revenue and profitability could be adversely affected.

Our revenue could be adversely affected by the emergence of local competitors and local biases in international markets.

Our experience indicates that local officials that purchase traffic management products in the international markets we serve favor products that are developed and manufactured locally. As local competitors to our products emerge, local biases could erode our revenue in Europe and Asia and adversely affect our sales and revenue in those markets.

Our failure to predict technological convergence could harm our business and could reduce our sales.

Within our product families, we currently utilize only certain detection technologies available in the ITS field. If we fail to predict convergence of technology preferences in the market for ITS, or fail to identify and acquire complementary businesses or products that broaden our current product offerings, we may not capture certain segments of the market, which could harm our business and reduce our sales.

We sell our products internationally and are subject to various risks relating to such international activities, which could harm our international sales and profitability.

Sales outside of the United States, including export sales from our U.S. business locations, accounted for approximately 35% of our total revenue in 2011. By doing business in international markets, we are exposed to risks separate and distinct from those we face in our U.S. operations. Our international business may be adversely affected by changing political and economic conditions in foreign countries. Additionally fluctuations in currency exchange rates could affect demand for our products or otherwise negatively affect profitability. Engaging in international business inherently involves a number of other difficulties and risks, including:

export restrictions and controls relating to technology;

pricing pressure that we may experience internationally;

exposure to the risk of currency value fluctuations, where payment for products is denominated in a currency other than U.S. dollars;

variability in the U.S. dollar value of foreign currency-denominated assets, earnings and cash flows;

required compliance with existing and new foreign regulatory requirements and laws;

laws and business practices favoring local companies;

longer payment cycles;

difficulty of enforcing agreements, including patent and trademarks, and collecting receivables through foreign legal systems;

political and economic instability, including recent volatility in the economic environment of the European Union caused by the ongoing sovereign debt crisis in Europe;

tax rates in certain foreign countries that exceed those in the U.S. and the imposition of withholding requirements on foreign earnings;

higher danger of terrorist activity, war or civil unrest, compared to domestic operations;

difficulties and costs of staffing and managing foreign operations; and

difficulties in enforcing intellectual property rights.

Table of Contents

Our exposure to each of these risks may increase our costs, lengthen our sales cycle and require significant management attention. One or more of these factors may harm our business.

Our inability to comply with European and Asian regulatory restrictions over hazardous substances and electronic waste could restrict product sales in those markets and reduce profitability in the future.

The European Union's Waste Electrical and Electronic Equipment (WEEE) directive makes producers of electrical goods financially responsible for specified collection, recycling, treatment and disposal of past and future covered products. This directive must be enacted and implemented by individual European Union governments, and certain producers will be financially responsible under the WEEE legislation. This may impose requirements on us, which, if we are unable to meet them, could adversely affect our ability to market our products in European Union countries, and sales revenues and profitability would suffer as a consequence. In addition, the European Parliament has enacted a directive for the restriction of the use of certain hazardous substances in electrical and electronic equipment. This RoHS legislation restricts the use of such substances as mercury, lead, cadmium and hexavalent cadmium. If we are unable to have our products manufactured in compliance with the RoHS directive, we would be unable to market our products in European Union countries, and our revenues and profitability would suffer. In addition, various Asian governments could adopt their own versions of environment-friendly electronic regulations similar to the European directives, RoHS and WEEE. This could require new and unanticipated manufacturing changes, product testing and certification requirements, thereby increasing cost, delaying sales and lowering revenue and profitability.

Our inability to manage growth effectively could seriously harm our business.

Growth and expansion of our business could significantly strain our capital resources as well as the time and abilities of our management personnel. Our ability to manage growth effectively will require continued improvement of our operational, financial and management systems and the successful training, motivation and management of our employees. If we are unable to manage growth successfully, our business and operating results will suffer.

Our business operations will be severely disrupted if we lose key personnel or if we fail to attract and retain qualified personnel.

Our technology depends upon the knowledge, experience and skills of our key management and scientific and technical personnel. Additionally, our ability to continue technological developments and to market our products, and thereby develop a competitive edge in the marketplace, depends in large part on our ability to attract and retain qualified scientific and technical personnel. Competition for qualified personnel is intense, and we cannot assure you that we will be able to attract and retain the individuals we need, especially if our business expands and requires us to employ additional personnel. In addition, the loss of personnel or our failure to hire additional personnel could materially and adversely affect our business, operating results and ability to expand. The loss of key personnel, including Kenneth R. Aubrey, our President and Chief Executive Officer, or our inability to hire and retain qualified personnel, would harm our business.

We may not be successful in integrating acquired companies into our business, which could materially and adversely affect our financial condition and operating results.

Part of our business strategy has been to acquire or invest in companies, products or technologies that complement our current products, enhance our market coverage or technical capabilities or offer growth opportunities. As part of this strategy, in December 2007, we completed the EIS asset purchase, and in June 2010, we acquired CitySync Limited. For any acquisition, a significant amount of management's time and financial resources may be required to complete the acquisition and integrate the acquired business into our existing operations. Even with this investment of management time and financial resources, an acquisition may not produce the revenue, earnings or business synergies anticipated. Acquisitions involve numerous other risks, including the assumption of unanticipated operating problems or legal liabilities; problems integrating the purchased operations, technologies or products; the diversion of management's attention from our core businesses; restrictions on the manner in which we may use purchased companies or assets imposed by acquisition agreements; adverse effects on existing business relationships with suppliers and customers; incorrect estimates made in the accounting for acquisitions and amortization of acquired intangible assets that would reduce future reported earnings (such as goodwill impairments); ensuring acquired companies' compliance with the requirements of the U.S. federal securities laws and accounting rules; and the potential loss of customers or key employees of acquired businesses. We cannot assure you that any acquisitions, investments, strategic alliances or joint ventures will be completed or integrated in a timely manner or achieve anticipated synergies, will be structured or financed in a way that will enhance our business or creditworthiness, or will meet our strategic objectives or otherwise be successful.

We may be required to recognize impairment charges for long-lived assets.

As of December 31, 2011, the net carrying value of long-lived assets (property, plant and equipment, deferred tax assets, goodwill and other intangible assets) totaled approximately \$15.6 million. In accordance with generally accepted accounting principles, we periodically assess these assets to determine if they are impaired. Significant negative industry or economic trends, significant and sustained decline in our stock price,

disruptions to our businesses, significant unexpected or planned changes in our use of assets, divestitures and market capitalization declines may result in impairments to our goodwill and other long-lived assets. Future impairment charges could significantly affect our results of operations in the periods recognized.

Table of Contents

Our stock is thinly traded and our stock price is volatile.

Our common stock is thinly traded, with 3,260,951 shares of our 4,910,619 outstanding shares held by non-affiliates as of February 29, 2012. Based on the trading history of our common stock and the nature of the market for publicly traded securities of companies in evolving high-tech industries, we believe there are several factors that have caused and are likely to continue to cause the market price of our common stock to fluctuate substantially. The fluctuations may occur on a day-to-day basis or over a longer period of time. Factors that may cause fluctuations in our stock price include announcements of large orders obtained by us or our competitors, substantial cutbacks in government funding of highway projects or of the potential availability of alternative technologies for use in traffic control and safety, quarterly fluctuations in our financial results or the financial results of our competitors, consolidation among our competitors, fluctuations in stock market prices and volumes, and the volatility of the stock market.

Difficult and volatile conditions in the capital, credit and commodities markets and in the overall economy could continue to adversely affect our financial position, results of operations and cash flows, and we do not know if these conditions will improve in the near future.

Our financial position, results of operations and cash flows could continue to be adversely affected by difficult conditions and significant volatility in the capital, credit and commodities markets and in the overall worldwide economy. These factors, combined with declining business and consumer confidence and increased unemployment, have precipitated a worldwide economic slowdown and recession in the United States and other parts of the world. Although certain economic conditions in the United States have shown signs of improvement, economic growth has been slow and uneven as consumers continue to be affected by high unemployment rates and depressed housing values. In addition, recent concerns and events such as U.S. debt and budget matters; the sovereign debt crisis in Europe, including its expected continuing negative impact on European economic growth; and disruptions to the credit and financial markets in Europe and the U.S. may continue to adversely impact economic recovery. The continuing impact that these factors might have on us and our business is uncertain and cannot be estimated at this time. Current economic conditions have accentuated each of these risks and magnified their potential effect on us and our business. The difficult conditions in these markets and the overall economy affect our business in a number of ways. For example:

Although we believe we have sufficient liquidity under our financing arrangements to run our business, under extreme market conditions, there can be no assurance that such funds would be available or sufficient, and, in such a case, we may not be able to successfully obtain additional financing on favorable terms, or at all.

Recent market volatility has exerted downward pressure on our stock price, which could cause us to record goodwill impairment charges and may make it more difficult or unfavorable for us to raise additional capital in the future.

Economic conditions, including the European debt crisis, could result in customers in our markets continuing to experience financial difficulties, including limited liquidity and their inability to obtain financing or electing to limit spending because of the economy which may result, for example, in customers' inability to pay us at all or on a timely basis and in declining tax revenue for our customers that are governmental entities, which in turn could result in decreased sales and earnings for us.

We do not know if market conditions or the state of the overall economy will improve in the near future, when improvement will occur or if any improvement will benefit our market segment.

Our directors and executive officers have substantial influence over us and could limit the ability of our other shareholders to affect the outcome of key transactions, including changes of control.

Our executive officers and directors and entities affiliated with them, in the aggregate, beneficially owned 12% of our outstanding common stock as of February 29, 2012, assuming the exercise by them of all of their options that were currently exercisable or that vest within 60 days of February 29, 2012. Our executive officers and directors and their affiliated entities, if acting together, thus are able to influence significantly all matters requiring approval by our shareholders, including the election of directors and the approval of mergers or other significant corporate transactions. These shareholders may have interests that differ from other shareholders, and they may vote in a way with which other shareholders disagree and that may be adverse to other shareholders' interests. The concentration of ownership of our common stock may have the effect of delaying, preventing or deterring a change of control of our company, could deprive our shareholders of an opportunity to receive a premium for their common stock as part of a sale of our company, and may affect the market price of our common stock. This concentration of ownership of our common stock may also have the effect of influencing the completion of a change in control that may not necessarily be in the best interests of all of our shareholders.

Table of Contents

Our articles of incorporation and bylaws and Minnesota law may inhibit a takeover that shareholders consider favorable.

Provisions of our articles of incorporation and bylaws and applicable provisions of Minnesota law may delay or discourage transactions involving an actual or potential change in our control or change in our management, including transactions in which shareholders might otherwise receive a premium for their shares or transactions that our shareholders might otherwise deem to be in their best interests. These provisions:

permit our board of directors to issue up to 5,000,000 shares of preferred stock with any rights, preferences and privileges as it may designate, including the right to approve an acquisition or other change in our control;

provide that the authorized number of directors may be increased by resolution of the board of directors;

provide that all vacancies, including newly-created directorships, may, except as otherwise required by law, be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum; and

eliminate cumulative voting rights, therefore allowing the holders of a majority of the shares of common stock entitled to vote in any election of directors to elect all of the directors standing for election, if they should so choose.

In addition, Section 302A.671 of the Minnesota Business Corporation Act (MBCA) generally limits the voting rights of a shareholder acquiring a substantial percentage of our voting shares in an attempted takeover or otherwise becoming a substantial shareholder of our company unless holders of a majority of the voting power of the disinterested shares approve full voting rights for the substantial shareholder. Section 302A.673 of the MBCA generally limits our ability to engage in any business combination with certain persons who own 10% or more of our outstanding voting stock or any of our associates or affiliates who at any time in the past four years have owned 10% or more of our outstanding voting stock. These provisions of the MBCA may have the effect of entrenching our management team and may deprive shareholders of the opportunity to sell their shares to potential acquirers at a premium over prevailing prices. This potential inability to obtain a control premium could reduce the price of our common stock.

We can issue shares of preferred stock without shareholder approval, which could adversely affect the rights of common shareholders.

Our articles of incorporation permit our board of directors to establish the rights, privileges, preferences and restrictions, including voting rights, of future series of our preferred stock and to issue such stock without approval from our shareholders. The rights of holders of our common stock may suffer as a result of the rights granted to holders of preferred stock that may be issued in the future. In addition, we could issue preferred stock to prevent a change in control of our company, depriving common shareholders of an opportunity to sell their stock at a price in excess of the prevailing market price.

We do not intend to declare dividends on our stock in the foreseeable future.

We currently intend to retain all future earnings for the operation and expansion of our business and, therefore, do not anticipate declaring or paying cash dividends on our common stock in the foreseeable future. Any payment of cash dividends on our common stock will be at the discretion of our board of directors and will depend upon our operating results, earnings, current and anticipated cash needs, capital requirements, financial condition, future prospects, any contractual restrictions and any other factors deemed relevant by our board of directors. Therefore, shareholders should not expect to receive dividend income from shares of our common stock.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

We currently lease and occupy approximately 20,000 square feet in St. Paul, Minnesota for our headquarters. This lease expires in May 2014, and we have the right to renew the lease for two additional three-year terms. Our office in suburban north London, United Kingdom consists of 17,000 square feet of space, and our lease for this space expires at our option in January 2015. We also lease smaller facilities in Canada, Hong Kong, China and Poland.

We believe that our current space is generally adequate to meet our current expected needs and we do not intend to lease significantly more space in 2012.

Table of Contents

Item 3. Legal Proceedings

We are involved in legal actions and claims relating to various matters. Although we are unable to predict the ultimate outcome of these legal actions and claims, it is the opinion of management that the disposition of these matters, taken as a whole, will not have a material adverse effect on our Consolidated Financial Statements.

Item 4. Mine Safety Disclosures

Not applicable.

Table of Contents**PART II****Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities***Market Information*

Our common stock is traded on The NASDAQ Capital Market under the symbol ISNS. The quarterly high and low sales prices for our common stock for our last two fiscal years are set forth below.

Quarter	2011		2010	
	High	Low	High	Low
First	\$ 14.34	\$ 12.58	\$ 15.53	\$ 11.50
Second	13.94	9.85	14.47	12.20
Third	11.29	5.76	13.50	10.10
Fourth	7.16	4.91	13.50	11.10

Shareholders

As of February 29, 2012, there were 23 holders of record of our common stock. The number of holders of record is based upon the actual number of holders registered at such date and does not include holders of shares in street names or persons, partnerships, associates, corporations, or other entities identified in security position listings maintained by depositories.

Dividends

We have never declared or paid a cash dividend on our common stock. We currently intend to retain earnings for use in the operation and expansion of our business, and, consequently, we do not anticipate paying any dividends in the foreseeable future.

Debt Covenants

Our credit agreement includes certain financial covenants, including minimum debt service ratios, minimum cash flow coverage ratios, and other financial measures. These financial covenants may restrict our ability to pay dividends and purchase outstanding shares of common stock. At December 31, 2011 and December 31, 2010, we were in compliance with these financial covenants. Information on our debt agreements is included in Item 7 of this Annual Report on Form 10-K.

Comparative Stock Performance Graph

The graph below compares the five-year cumulative total shareholder return on our common stock with the cumulative total shareholder return of (i) the Dow Jones Wilshire 5000 Index and (ii) the Dow Jones Wilshire Electronic Equipment Index, assuming an investment of \$100 on December 31, 2006, including reinvestment of dividends.

Notwithstanding anything to the contrary set forth in any of our previous or future filings under the Securities Act of 1933 or the Securities Exchange Act of 1934 that might incorporate future filings by reference, including this Annual Report on Form 10-K, in whole or in part, the following performance graph and accompanying data shall not be deemed to be incorporated by reference into any such filings and shall not otherwise be deemed filed under such Acts.

Table of Contents

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN*
Among Image Sensing Systems, Inc, the Wilshire 5000 Index, and the Dow Jones US
Electrical Components & Equipment TSM Index

	12/06	12/07	12/08	12/09	12/10	12/11
Image Sensing Systems, Inc.	\$ 100.00	\$ 121.37	\$ 44.48	\$ 79.61	\$ 90.85	\$ 45.50
Wilshire 5000	\$ 100.00	\$ 105.62	\$ 66.29	\$ 85.05	\$ 99.65	\$ 100.62
Dow Jones US Electrical Components & Equipment TSM	\$ 100.00	\$ 119.21	\$ 63.54	\$ 97.79	\$ 122.41	\$ 106.73

18

Table of Contents**Item 6. Selected Financial Data**

The following table sets forth selected consolidated financial data for each of the five fiscal years ended December 31, 2011. The statement of income and balance sheet data for the years ended and as of December 31, 2011, 2010, 2009, 2008 and 2007 are derived from our audited Consolidated Financial Statements. The following information should be read in conjunction with Management's Discussion and Analysis of Financial Condition and Results of Operations and with our Consolidated Financial Statements and the related notes thereto included elsewhere in this Annual Report on Form 10-K.

	Fiscal Years Ended December 31,				
	2011	2010	2009	2008	2007
	(in thousands, except per share data)				
Consolidated Statement of Operations Data:					
Revenue:					
Product sales	\$ 17,475	\$ 19,162	\$ 12,483	\$ 13,144	\$ 4,336
Royalties	13,046	12,519	12,110	13,321	10,747
Total revenue	30,521	31,681	24,593	26,465	15,083
Cost of revenue (exclusive of amortization shown below):					
Product sales	8,769	7,799	4,297	4,912	1,987
Restructuring	448				
Total cost of revenue	9,217	7,799	4,297	4,912	1,987
Gross profit	21,304	23,882	20,296	21,553	13,096
Operating expenses:					
Selling, marketing and product support	10,609	9,807	7,201	6,680	3,463
General and administrative	6,315	4,372	3,779	4,069	2,653
Research and development	4,424	3,630	3,336	2,908	2,299
Amortization of intangible assets	1,650	1,218	768	768	51
Restructuring	287				
Goodwill impairment	11,685				
Acquisition related expenses (income)	(618)	817			
In-process research and development					4,500
	34,352	19,844	15,084	14,425	12,966
Income (loss) from operations	(13,048)	4,038	5,212	7,128	130
Other income (expense), net	9	(123)	7	43	543
Income (loss) before income taxes	(13,039)	3,915	5,219	7,171	673
Income tax expense (benefit)	(3,022)	910	1,354	2,207	(199)
Net income (loss)	\$ (10,017)	\$ 3,005	\$ 3,865	\$ 4,964	\$ 872
Net income (loss) per share:					
Basic	\$ (2.07)	\$ 0.66	\$ 0.97	\$ 1.26	\$ 0.23
Diluted	(2.07)	0.64	0.95	1.24	0.22

Weighted average number of common shares outstanding:

Edgar Filing: IMAGE SENSING SYSTEMS INC - Form 10-K

Basic	4,834	4,555	3,985	3,943	3,789
Diluted	4,834	4,667	4,081	4,001	3,881

At December 31,

	2011	2010	2009	2008	2007
(in thousands)					
Consolidated Balance Sheet Data:					
Total assets	\$ 41,254	\$ 54,356	\$ 41,150	\$ 36,108	\$ 30,388
Bank debt			4,000	3,750	5,000
Total shareholders' equity	36,326	46,021	32,713	28,530	13,225

19

Table of Contents

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with the Selected Financial Data and our financial statements and the accompanying notes included elsewhere in this Annual Report on Form 10-K. Our actual results could differ materially from those anticipated in the forward-looking statements included in this discussion as a result of certain factors, including, but not limited to, those discussed in Risk Factors and Information Regarding Forward-Looking Statements included elsewhere in this Annual Report on Form 10-K.

General. We provide software based computer enabled detection (CED) products and solutions that use advanced signal processing software algorithms to detect and monitor objects in a designated field of view. Our technology analyzes signals from a sophisticated sensor and passes the information along to management systems, controllers or directly to users. Our core products, the Autoscope® Video Vehicle Detection System, RTMS® Radar Detection System and CitySync Automatic Number Plate Recognition (ANPR) System, operate using our proprietary application software in conjunction with video cameras or radar and commonly available electronic components. Our systems are used by traffic managers primarily to improve the flow of vehicle traffic and to enhance safety at intersections, main thoroughfares, freeways and tunnels and by parking and toll managers and law enforcement officials to read license plates for various safety, security, access and enforcement ANPR applications.

Autoscope systems are sold to distributors and end users of traffic management products in North America, the Caribbean and Latin America by Econolite Control Products, Inc. (Econolite), our exclusive licensee in these regions. We sell CitySync systems to distributors and end users in North America. As described below, we announced a change to our RTMS selling model in December 2011. We sell all of our systems to distributors and end users in Europe and Asia through our European and Hong Kong subsidiaries, respectively. The majority of our sales are to end users that are funded by government agencies responsible for traffic management or traffic law enforcement.

CitySync Acquisition. In June 2010, we purchased all of the outstanding equity of CitySync Limited through which we own its principal product line, the CitySync ANPR system. We believe the CitySync acquisition expands our addressable market, strengthens our selling presence in Europe and extends our opportunities for hybrid product developments. In its fiscal year ended January 31, 2010, CitySync had revenue of \$7.4 million, substantially all of which related to ANPR system sales.

RTMS Business Model Change and Restructuring. In December 2011, we announced certain changes to our RTMS business model. Beginning in 2012, we gave an exclusive license to manufacture and distribute RTMS products in North America to Econolite under terms substantially the same as our Autoscope royalty arrangement. In conjunction with this agreement, certain of our sales and marketing employees dedicated to RTMS are now employed directly by Econolite. As a result, in 2012, revenue earned from sales of RTMS in North America will be in the form of a royalty rather than a sale directly to the purchaser, and there will be no cost of revenue, as Econolite will now be responsible for manufacturing and post-sales support. Additionally, our sales and marketing expense related to our RTMS business in North America will be significantly decreased due to the transition of the former headcount.

Simultaneously with the RTMS changes, we put a plan in place for restructuring aspects of our North American RTMS and CitySync businesses. Most significantly, the assembly of our RTMS product is being moved from our Toronto facility to a third party, and our production and administrative support headcount will be reduced early in 2012.

Trends and Challenges in Our Business

We believe the growth in our business can be attributed primarily to the following global trends:

worsening traffic caused by increased numbers of vehicles in metropolitan areas without corresponding expansions of road infrastructure and the need to automate safety, security and access applications for automobiles and trucks, which has increased demand for our products;

advances in information technology, which have made our products easier to market and implement;

the continued funding allocations for centralized traffic management services and automated enforcement schemes, which has increased the ability of our primary end users to implement our products; and

general increases in the cost-effectiveness of electronics, which make our products more affordable for end users.

Table of Contents

We believe our continued growth primarily depends upon:

continued adoption and governmental funding of intelligent transportation systems (ITS) and other automated applications for traffic control, safety and enforcement in developed countries;

a propensity by traffic engineers to implement lower cost technology-based solutions rather than civil engineering solutions such as widening roadways;

countries in the developing world adopting above-ground detection technology, such as video or radar, instead of in-pavement loop technology to manage traffic;

the use of CED to provide solutions to security/surveillance and environmental issues associated with increasing automobile use in metropolitan areas; and

our ability to develop new products, such as hybrid CED devices incorporating, for example, radar and video technologies, that provide increasingly accurate information and enhance the end users' ability to cost-effectively manage traffic, security/surveillance and environmental issues.

Because the majority of our end users are governmental entities, we are faced with challenges related to potential delays in purchase decisions by those entities and changes in budgetary constraints. These contingencies could result in significant fluctuations in our revenue between periods. The current European sovereign debt crisis is further adding to the unpredictability of purchase decisions, creating more delays than usual and decreasing governmental budgets, and it is likely to continue to negatively affect our revenue.

Key Financial Terms and Metrics

Revenue. We derive revenue from two sources: (1) royalties received from Econolite for sales of the Autoscope system in North America, the Caribbean and Latin America and (2) revenue received from the direct sales of our RTMS and CitySync systems in North America, the Caribbean and Latin America and all of our systems in Europe and Asia. As described above, beginning in 2012, RTMS sales in North America will become royalty based. We calculate the royalties using a profit sharing model where the gross profit on sales of Autoscope product made through Econolite are shared equally with Econolite. This royalty arrangement has the benefit of decreasing our cost of revenues and our selling, marketing and product support expenses because these costs and expenses are borne primarily by Econolite. Although this royalty model has a positive impact on our gross margin, it also negatively impacts our total revenue, which would be higher if all the sales made by Econolite were made directly by us. The royalty arrangement is exclusive under a long-term agreement.

Cost of Revenue. There is no cost of revenue related to royalties, as virtually all manufacturing, warranty and related costs are incurred by Econolite. Cost of revenue related to product sales consists primarily of the amount charged by our third party contractors to manufacture hardware platforms, which is influenced mainly by the cost of electronic components. The cost of revenue also includes logistics costs, estimated expenses for product warranties, restructuring costs and inventory reserves. The key metric that we follow is achieving certain gross margin percentages by geographic region and to a lesser extent by product line.

Operating Expenses. Our operating expenses fall into three categories: (1) selling, marketing and product support; (2) general and administrative; and (3) research and development. Selling, marketing and product support expenses consist of various costs related to sales and support of our products, including salaries, benefits and commissions paid to our personnel; commissions paid to third parties; travel, trade show and advertising costs; second-tier technical support for Econolite; and general product support, where applicable. General and administrative expenses consist of certain corporate and administrative functions that support the development and sales of our products and provide an infrastructure to support future growth. General and administrative expenses reflect management, supervisory and staff salaries and benefits, legal and auditing fees, travel, rent and costs associated with being a public company, such as board of director fees, listing fees and annual reporting expenses. Research and development expenses consist mainly of salaries and benefits for our engineers and third party costs for consulting and prototyping. We measure all operating expenses against our annually approved budget, which is developed with achieving a certain operating margin as a key focus. Also included in operating expenses are acquisition related expenses, income related to the earn-out reversal, impairment charges, restructuring costs and non-cash expense for intangible asset amortization.

Non-GAAP Operating Measure. We use non-GAAP net income to analyze our business. Non-GAAP net income excludes the impact, net of tax, of restructuring charges, amortizing the intangible assets and expenses related to acquisitions, including earn-out adjustments. Non-GAAP net income also excludes the impact, net of tax, of restructuring and goodwill impairment charges. Management believes that this non-GAAP operating measure, when shown in conjunction with GAAP measures, facilitates the comparison of our current operating results to historical

Edgar Filing: IMAGE SENSING SYSTEMS INC - Form 10-K

operating results. We use this non-GAAP information to evaluate short-term and long-term operating trends in our core operations. Further, we believe that this non-GAAP measure improves management's and investors' ability to compare our financial performance with other companies in the technology industry. Non-GAAP information is not prepared in accordance with GAAP and should not be considered a substitute for or an alternative to GAAP financial measures and may not be computed the same as similarly titled measures used by other companies.

Edgar Filing: IMAGE SENSING SYSTEMS INC - Form 10-K

Table of Contents

Reconciliations of GAAP net income to non-GAAP net income are as follows (dollars in thousands, except per share amounts):

	Years ended December 31		
	2011	2010	2009
GAAP net income (loss)	\$ (10,017)	\$ 3,005	\$ 3,865
Adjustments to reconcile to non-GAAP net income:			
Amortization of intangible assets	1,650	1,218	768
Goodwill impairment	11,685		
Acquisition related expenses (income)	(618)	817	
Restructuring	735		
Non-recurring foreign tax benefit			(236)
Impact on income tax expense/benefit of excluded items	(3,074)	(414)	(261)
Non-GAAP net income	\$ 361	\$ 4,626	\$ 4,136
GAAP diluted earnings (loss) per share	\$ (2.07)	\$ 0.64	\$ 0.95
Non-GAAP diluted earnings per share	0.07	0.99	1.01

Seasonality. Our quarterly revenues and operating results have varied significantly in the past due to the seasonality of our business. Our first quarter generally is the weakest due to weather conditions that make roadway construction more difficult in parts of North America, Europe and northern Asia. We expect such seasonality to continue for the foreseeable future. Additionally, our international revenues have a significant large project component, resulting in a varying revenue stream. Accordingly, we believe that quarter-to-quarter comparisons of our financial results should not be relied upon as an indication of our future performance. No assurance can be given that we will be able to achieve or maintain profitability on a quarterly or annual basis in the future.

Segments. We currently operate in three reportable segments: Autoscope, RTMS and CitySync. Autoscope is our machine-vision product line, and revenue consists of royalties (all of which are received from Econolite), as well as a portion of international sales. RTMS is our radar product line acquired in the EIS asset purchase in December 2007. CitySync is our ANPR product line acquired in the CitySync purchase in June 2010. All segment revenues are derived from external customers.

As a result of business model changes and modifications in how we manage our business, we may reevaluate our segment definitions in the future.

The following tables set forth selected unaudited financial information for each of our reportable segments (in thousands):

	For the year ended December 31, 2011			
	Autoscope	RTMS	CitySync	Total
Revenue	\$ 17,445	\$ 7,366	\$ 5,710	\$ 30,521
Gross profit	15,096	3,512	2,696	21,304
Goodwill impairment	525	7,392	3,768	11,685
Amortization of intangible assets		768	882	1,650
Intangible assets and goodwill		3,551	7,457	11,008

	For the year ended December 31, 2010			
	Autoscope	RTMS	CitySync	Total
Revenue	\$ 16,659	\$ 9,819	\$ 5,203	\$ 31,681
Gross profit	15,054	6,104	2,724	23,882
Amortization of intangible assets		768	450	1,218

Intangible assets and goodwill	525	11,710	11,991	24,226
	22			

Edgar Filing: IMAGE SENSING SYSTEMS INC - Form 10-K

Table of Contents

For the year ended December 31, 2009

	Autoscope	RTMS	CitySync	Total
Revenue	\$ 16,240	\$ 8,353	\$	\$ 24,593
Gross profit	14,773	5,523		20,296
Amortization of intangible assets		768		768
Intangible assets and goodwill	525	10,813		11,338

Results of Operations

The following table sets forth, for the periods indicated, certain statements of income data as a percent of total revenue and gross margin on international sales and royalties as a percentage of international sales and royalties, respectively.

Year Ended December 31,

	2011	2010	2009
Product sales	57.3%	60.5%	50.8%
Royalties	42.7	39.5	49.2
Total revenue	100.0	100.0	100.0
Gross margin product sales	47.3	59.3	65.6
Gross margin royalties	100.0	100.0	100.0
Selling, marketing and product support	34.8	31.0	29.3
General and administrative	20.7	13.8	15.4
Research and development	14.5	11.5	13.6
Acquisition related expenses (income)	(2.0)	2.6	
Goodwill impairment	38.3		
Amortization of intangibles	5.4	3.8	3.1
Restructuring charges	0.9		
Income (loss) from operations	(42.8)	12.7	21.2
Income tax expense (benefit)	(9.9)	2.9	5.5
Net income (loss)	(32.8)	9.5	15.7

Year Ended December 31, 2011 Compared to Year Ended December 31, 2010. Total revenue decreased to \$30.5 million in 2011 from \$31.7 million in 2010, a decrease of 3.7%. Royalty income increased to \$13.0 million in 2011 from \$12.5 million in 2010, an increase of 4.2%. Product sales decreased to \$17.5 million in 2011 from \$19.2 million in 2010, a decrease of 8.8%. The decrease in product sales was mainly due to lower sales volume in Asia resulting, in part, from increased price and product competition and slower than planned management transitions. Revenue for the Autoscope segment increased to \$17.4 million in 2011 from \$16.7 million in 2010, an increase of 4.7%. Revenue for the RTMS segment decreased to \$7.4 million in 2011 from \$9.8 million in 2010, a decrease of 25.0%. The increase in Autoscope was due to higher volume mainly driven by two large project sales late in 2011. The decrease in RTMS was due mainly to lower sales volume in Asia and to a lesser extent in North America. Although the CitySync segment increased in 2011 over 2010, an annualized pro-forma comparison shows a decline. This is due to lower sales volume in 2011 and is reflective of a difficult environment for selling security applications to government customers in Europe and the United States that we believe was caused by constrained government budgets. As CitySync revenues were below the threshold required to achieve a second earn-out payment, in the 2011 fourth quarter, we took into income, as a reduction of overall operating expenses, \$618,000 that was estimated and recorded as of the acquisition date.

Gross margins for product sales decreased to 47.3% in 2011 from 59.3% in 2010. Gross margins for the CitySync product line have historically been lower than gross margins for the Autoscope and RTMS product lines and therefore the mix of the product lines in any given period can result in varying margins. Generally, lower sales volumes of RTMS or CitySync products will reduce gross margins because of fixed manufacturing costs for these products. Additionally, gross margins were lower as a result of \$448,000 in restructuring charges related to the RTMS business model change. Without this charge, product sale gross margins would have been 49.8%. The decrease in gross margins for 2011 compared to 2010 is reflective of lower sales volumes and unfavorable mix towards lower margin third party equipment. Gross margins on

Edgar Filing: IMAGE SENSING SYSTEMS INC - Form 10-K

royalty income remained consistent at 100.0% in each of 2011 and 2010. We anticipate that gross margins for our product sales will be higher in 2012 as compared to 2011, while we expect royalty gross margins will be 100% in 2012.

Selling, marketing and product support expense increased to \$10.6 million or 34.8% of total revenue in 2011 from \$9.8 million or 31.0% of total revenue in 2010. Our selling, marketing and product support expense increased mainly due to the addition of CitySync operations for a full year but also reflected investments in market expansion activities in Europe and Asia. We anticipate that selling, marketing and product support expense will decrease both in terms of dollar amount and as a percentage of revenue in 2012, as compared to 2011, as we realize the impact of restructuring initiatives and the RTMS business model change.

Edgar Filing: IMAGE SENSING SYSTEMS INC - Form 10-K

Table of Contents

General and administrative expense increased to \$6.3 million or 20.7% of total revenue in 2011, from \$4.4 million or 13.8% of total revenue in 2010. General and administrative expenses increased in 2011 mainly as a result of the addition of the CitySync organization and to a lesser extent due to increased foreign currency exchange losses and bad debt reserves. We anticipate that general and administrative expense will decrease both in terms of dollar amount and as a percentage of revenue in 2012, as compared to 2011, as we realize the impact of restructuring initiatives and the RTMS business model change.

Research and development expense increased to \$4.4 million or 14.5% of total revenue in 2011, up from \$3.6 million or 11.5% of total revenue in 2010. The increase was mainly related to the addition of the CitySync engineering organization and increased expenditures on our hybrid product development. We anticipate that research and development expense will remain similar or decrease slightly in terms of dollar amount in 2012 as compared to 2011.

We recognized a goodwill impairment in 2011 of \$11.7 million that was triggered by a significant decline in our market capitalization. If our stock price were to experience a significant and sustained decline, we would expect to recognize a further goodwill impairment charge.

As discussed above, in December 2011, we announced a change to our North American business model for the RTMS product line and certain restructuring initiatives. As a result, we recognized restructuring expense of \$448,000 related to reserves for inventory and \$287,000 related mainly to employee severance.

Amortization of intangibles expense was \$1.7 million in 2011 compared to \$1.2 million in 2010 and reflects the amortization of intangible assets acquired in acquisitions. Assuming there are no changes to our intangible assets, we anticipate amortization expense will be approximately \$1.6 million in 2012.

Other income (expense), net was an income of \$9,000 in 2011, primarily consisting of interest income, as opposed to expense of \$123,000 in 2010 mainly due to higher debt balances in 2010, including a portion related to CitySync.

Income tax benefit of \$3.0 million, or 23.2% of our pretax loss, was recorded for the year ended December 31, 2011, compared to income tax expense of \$0.9 million, or 23.2% of pretax income, for the year ended December 31, 2010. We expect the effective rate in 2012 to be below 30%.

Year Ended December 31, 2010 Compared to Year Ended December 31, 2009. Total revenue increased to \$31.7 million in 2010 from \$24.6 million in 2009, an increase of 28.8%. Royalty income increased to \$12.5 million in 2010 from \$12.1 million in 2009, an increase of 3.4%. Product sales increased to \$19.2 million in 2010 from \$12.5 million in 2009, an increase of 53.6%. The increase in product sales was mainly due to the addition of the CitySync product line in June 2010 and to a lesser extent due to improved sales of RTMS in international markets. Revenue for the Autoscope segment increased to \$16.7 million in 2010 from \$16.2 million in 2009, an increase of 2.6%. Revenue for the RTMS segment increased to \$9.8 million in 2010 from \$8.4 million in 2009, an increase of 17.6%. The increase resulted mainly as a result of improved sales in international markets.

Gross margins for product sales decreased to 59.3% in 2010 from 65.6% in 2009. The decrease resulted mainly from the addition of the CitySync product line, which currently earns lower margins than Autoscope or RTMS, and increased warranty expense for RTMS, and to a lesser extent from increased pricing competition for Autoscope internationally. Gross margins on royalty income remained consistent at 100% in 2010 and 2009.

Selling, marketing and product support expense increased to \$9.8 million or 31.0% of total revenue in 2010 from \$7.2 million or 29.3% of total revenue in 2009. Our selling, marketing and product support expense increased in 2010 mostly as a result of the addition of the CitySync organization. Additionally, we invested in market expansion activities in Europe and Asia, including adding senior management.

General and administrative expense increased to \$4.4 million or 13.8% of total revenue in 2010, from \$3.8 million or 15.4% of total revenue in 2009. The general and administrative expenses increased in 2010 mainly as a result of the addition of the CitySync organization and to a lesser extent due to increased compensation and benefits.

Research and development expense increased to \$3.6 million or 11.5% of total revenue in 2010, up from \$3.3 million or 13.6% of total revenue in 2009. The increase was mainly related to the addition of the CitySync engineering organization.

Amortization of intangibles expense was \$1.2 million in 2010 and reflects the amortization of intangible assets acquired in both the EIS asset purchase and the CitySync acquisition.

Edgar Filing: IMAGE SENSING SYSTEMS INC - Form 10-K

Other income (expense) was an expense of \$123,000 in 2010, primarily consisting of interest expense, as opposed to income of \$7,000 in 2009 mainly due to higher debt balances in 2010, including a portion related to CitySync.

Table of Contents

Our income tax effective rate was 23.2% in 2010 compared to 25.9% in 2009. The 2010 effective rate was positively impacted by increased tax credits for research and development activities.

Liquidity and Capital Resources

At December 31, 2011, we had \$5.2 million in cash and cash equivalents and \$2.1 million in short-term investments, compared to \$8.0 million in cash and cash equivalents and \$4.0 million in short-term investments at December 31, 2010. Our investment objectives are to preserve principal, maintain liquidity, and achieve the best available return consistent with its primary objectives of safety and liquidity.

Net cash used in operating activities was \$1.3 million in 2011, compared to cash provided by operating activities of \$33,000 and \$5.4 million in 2010 and 2009, respectively. The primary reason for the cash used in 2011 was increased inventory balances caused in part by lower than anticipated sales volume. The primary reason for the 2010 change compared to 2009 was increased accounts and other receivables outstanding, the majority of which related to CitySync activity. We anticipate that average receivable collection days in 2012 will be similar to 2011 and that it will not have a material impact on our liquidity.

Net cash used in investing activities was \$1.4 million in 2011, compared to cash used in investing activities of \$10.3 million and \$1.8 million in 2010 and 2009, respectively. In 2011, investment balances decreased to partially fund earn-out payments paid at the beginning of the year. Our planned additions of property and equipment are discretionary, and we do not expect them to exceed historical levels in 2012. We used \$8.3 million of cash in 2010 to acquire CitySync, including repaying seller loans.

Net cash provided by financing activities was \$105,000 in 2011, compared to cash provided by financing activities of \$4.4 million in 2010 and used in financing activities of \$251,000 in 2009. During 2010, we raised \$8.8 million in cash, net of offering expenses, through our 2010 secondary offering, which was used to fund the purchase of CitySync.

In December 2009, we entered into a term loan agreement for \$4.0 million with Associated Bank, National Association (Associated Bank), which we fully repaid in September 2010.

We also have a revolving line of credit agreement with Associated Bank. The revolving line of credit provides for up to \$5.0 million at an annual interest rate equal to the greater of 4.5% or LIBOR plus 2.75%, as reset from time to time by the bank. Advances on the line of credit cannot exceed a borrowing base determined under a formula, which is a percentage of the amounts of eligible receivables. The line of credit currently has no borrowings outstanding and matures on May 1, 2013. We believe that on an ongoing basis, we will have regular availability to draw a minimum of \$3.0 million on our line of credit based on our qualifying assets.

We believe that cash and cash equivalents on hand at December 31, 2011, along with the availability of funds under our \$5.0 million revolving line of credit and cash provided by operating activities, will satisfy our projected working capital needs, investing activities, and other cash requirements for the foreseeable future.

Off-Balance Sheet Arrangements

We do not participate in transactions or have relationships or other arrangements with an unconsolidated entity, including special purpose and similar entities or other off-balance sheet arrangements.

Critical Accounting Policies

Our Consolidated Financial Statements included elsewhere in this Annual Report on Form 10-K are prepared in accordance with U.S. generally accepted accounting principles (GAAP), which require us to make estimates and assumptions in certain circumstances that affect amounts reported. In preparing these financial statements, management has made its best estimates and judgments of certain amounts, giving due consideration to materiality. We believe that of our significant accounting policies, the following are particularly important to the portrayal of our results of operations and financial position, may require the application of a higher level of judgment by our management, and as a result, are subject to an inherent degree of uncertainty. For further information see Summary of Significant Accounting Policies under Note 1 to the Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K.

Goodwill. We test goodwill at least annually for impairment. Goodwill is also tested for impairment as changes in circumstances occur indicating that the carrying value may not be recoverable. Goodwill impairment testing first requires a comparison of the fair value of each reporting unit to the carrying value. If the carrying value of the reporting unit exceeds fair value, goodwill is considered impaired.

Table of Contents

We have three discrete reporting units, two of which were assigned goodwill as of December 31, 2011. The fair value of a reporting unit is estimated using a discounted cash flow model that requires input of certain estimates and assumptions requiring management judgment, including projections of economic conditions and customer demand, revenue and margins, changes in competition, operating costs, and new product introductions. While we believe the estimates and assumptions used in determining the fair value of our reporting units are reasonable, significant changes in our stock price, market capitalization or estimates of future cash flows, such as those caused by unforeseen events or changes in market conditions, could materially impact the fair value of a reporting unit, which could result in the recognition of a goodwill impairment charge.

Impairment of Long-Lived Assets. We review the carrying value of long-lived assets or asset groups, such as property and equipment and intangibles subject to amortization, when events or changes in circumstances such as asset utilization, physical change, legal factors, or other matters indicate that the carrying value may not be recoverable. When this review indicates the carrying value of an asset or asset group exceeds the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the asset or asset group, we recognize an asset impairment charge against operations. The amount of the impairment loss recorded is the amount by which the carrying value of the impaired asset or asset group exceeds its fair value.

Our impairment loss calculations contain uncertainties because they require management to make assumptions and to apply judgment to identify events or changes in circumstances indicating the carrying value of assets may not be recoverable, estimate future cash flows, estimate asset fair values, and select a discount rate that reflects the risk inherent in future cash flows. Expected cash flows may not be realized, which could cause long-lived assets to become impaired in future periods and could have a material adverse effect on future results of operations.

Revenue Recognition and Allowance for Doubtful Accounts. Royalty income is recognized based upon a monthly royalty report provided to us by Econolite. This report is prepared by Econolite based on its sales of products we developed and is based on sales shipped or delivered to its customers. Revenue is recognized when both product ownership and the risk of loss have transferred to the customer and we have no remaining obligations. Allowances for doubtful accounts are estimated by management based on evaluation of potential losses related to customer receivable balances. We determine the allowance based on historical write-off experience in the industry, regional economic data, and evaluation of specific customer accounts for risk of loss. We review our allowance for doubtful accounts monthly. Account balances are charged off against the allowance when we believe it is probable the receivable will not be recovered. We do not have any off-balance sheet credit exposure related to our customers. The establishment of this reserve requires the use of judgment and assumptions regarding the potential for losses on receivable balances. Although management considers these balances adequate and proper, changes in economic conditions in specific markets in which we operate could have an effect on reserve balances required.

Income Taxes. We record a tax provision for the anticipated tax consequences of the reported results of operations. Deferred tax assets and liabilities are measured using the currently enacted tax rates that apply to taxable income in effect for the years in which those deferred tax assets and liabilities are expected to be realized or settled. We record a valuation allowance to reduce deferred tax assets to the amount that is believed more likely than not to be realized. We believe it is more likely than not that forecasted income, including income that may be generated as a result of certain tax planning strategies, together with the tax effects of the deferred tax liabilities, will be sufficient to fully recover the remaining net realizable value of our deferred tax assets. In the event that all or part of the net deferred tax assets are determined not to be realizable in the future, an adjustment to the valuation allowance would be charged to earnings in the period such determination is made. In addition, the calculation of tax liabilities involves significant judgment in estimating the impact of uncertainties in the application of complex tax laws. Resolution of these uncertainties in a manner inconsistent with management's expectations could have a material impact on our financial condition and operating results.

Inventories. We maintain a material amount of inventory to support our engineering and manufacturing operations. This inventory is stated at the lower of cost or market. On a regular basis, we review our inventory and identify that which is excess, slow moving, and obsolete by considering factors such as inventory levels, expected product life, and forecasted sales demand. Any identified excess, slow moving, and obsolete inventory is written down to its market value through a charge to income from operations. It is possible that additional inventory write-down charges may be required in the future if there is a significant decline in demand for our products.

Warranty Liabilities. The estimated cost to service warranty and customer service claims is included in cost of sales. This estimate is based on historical trends of warranty claims. We regularly assess and adjust the estimate of accrued warranty claims by updating claims rates for actual trends and projected claim costs. Our warranty liability contains uncertainties because our warranty obligations cover an extended period of time. A revision of estimated claim rates or the projected cost of materials and freight associated with sending replacement parts to customers could have a material adverse effect on future results of operations.

Table of Contents

New and Recently Adopted Accounting Pronouncements

In October 2009, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2009-13, *Multiple-Deliverable Revenue Arrangements*. ASU 2009-13 amends the criteria established in Accounting Standards Codification (ASC) 605-25, *Revenue Recognition Multiple Element Arrangements*, for separating consideration in multiple-deliverable arrangements. This guidance establishes a selling price hierarchy for determining the selling price of a deliverable. Specifically, the selling price used for each deliverable is based on: (a) vendor-specific objective evidence if available; (b) third-party evidence if vendor-specific objective evidence is not available; or (c) estimated selling price if neither vendor-specific objective evidence nor third-party evidence is available. In addition, ASU 2009-13 eliminates the residual method of allocation and requires that arrangement consideration be allocated at the inception of the arrangement to all deliverables using the relative selling price method. Also, ASU 2009-13 expands required disclosures related to a vendor's multiple-deliverable revenue arrangements. The provisions of ASU 2009-13 were effective prospectively for revenue arrangements entered into or materially modified by us as of the beginning of the current year. Our adoption of the provisions of ASU 2009-13 did not have a material impact on its Consolidated Financial Statements. We incorporated the appropriate disclosure provisions of ASU 2009-13 upon adoption.

In May 2011, the FASB issued ASU 2011-04, *Amendments to Achieve Common Fair Value Measurement and Disclosure Requirements in U.S. GAAP and IFRS*, which also amends ASC 820. The purpose of this guidance is to achieve commonality between US GAAP and IFRS pertaining to fair value measurement and disclosure requirements. It changes certain fair value measurement principles and enhances the disclosure requirements particularly for Level 3 fair value measurements. The amendment becomes effective for annual periods beginning after December 15, 2011. We do not believe the adoption of this guidance will have a material impact on our Consolidated Financial Statements.

In June 2011, the FASB issued ASU 2011-05, *Presentation of Comprehensive Income*, which provides an entity the option to present the total of comprehensive income, the components of net income, and the components of other comprehensive income either in a single continuous statement of comprehensive income or in two separate but consecutive statements. In both choices, an entity is required to present each component of net income along with total net income, each component of other comprehensive income along with a total for other comprehensive income, and a total amount for comprehensive income. This eliminates the option to present the components of other comprehensive income as part of the statement of changes in shareholders' equity. The amendments do not change the items that must be reported in other comprehensive income or when an item of other comprehensive income must be reclassified to net income. Additionally, in December 2011, the FASB issued ASU 2011-12, *Deferral of the Effective Date for Amendments to the Presentation of Reclassifications of Items Out of Accumulated Other Comprehensive Income in Accounting Standards Update No. 2011-05*, which indefinitely defers the requirement in ASU 2011-05 to present reclassification adjustments out of accumulated other comprehensive income by component in both the statement in which net income is presented and the statement in which other comprehensive income is presented. During the deferral period, the existing requirements in U.S. GAAP for the presentation of reclassification adjustments must continue to be followed. The amendments are effective for fiscal years, and for interim periods within those fiscal years, beginning after December 15, 2011. The amendments are to be applied retrospectively, with early adoption permitted. We do not believe the adoption of this guidance will have a material impact on our Consolidated Financial Statements.

In September 2011, the FASB issued ASU 2011-08, *Testing Goodwill for Impairment (Topic 350)*. ASU 2011-08 simplifies how an entity is required to test goodwill for impairment by allowing the entity to first assess qualitative factors to determine whether it is necessary to perform the two-step quantitative goodwill impairment test. Previous guidance under Topic 350 required an entity to test goodwill for impairment, on at least an annual basis, by comparing the fair value of a reporting unit with its carrying amount, including goodwill. Under the provisions of ASU 2011-08, an entity is no longer required to calculate the fair value of a reporting unit unless the entity determines, based on a qualitative assessment, that it is more likely than not that its fair value is less than its carrying amount. ASU 2011-08 is effective for annual and interim goodwill impairment tests performed for fiscal years beginning after December 15, 2011 which, for us, will be the beginning of fiscal year 2012. We do not believe the adoption of this guidance will have a material impact on our Consolidated Financial Statements.

Item 7A. Quantitative and Qualitative Disclosures About Market Risks

Foreign Currency Exchange Risk

Approximately 30% of our revenue has historically been derived from shipments to customers outside of the United States, and a large portion of this revenue is denominated in currencies other than the U.S. dollar. Our international subsidiaries have functional currencies other than our U.S. dollar reporting currency and, occasionally, transact business in currencies other than their functional currencies. These non-functional currency transactions expose us to market risk on assets, liabilities and cash flows recognized on these transactions.

The strengthening of the U.S. dollar relative to foreign currencies decreases the value of foreign currency-denominated revenue and earnings when translated into U.S. dollars. Conversely, a weakening of the U.S. dollar increases the value of foreign currency-denominated revenue and earnings. A 10% adverse change in foreign currency rates, if we have not properly hedged, could have a material effect on our results of operations or financial position.

Table of Contents

Item 8. Financial Statements and Supplementary Data
IMAGE SENSING SYSTEMS, INC.
CONSOLIDATED BALANCE SHEETS
(in thousands, except share data)

	December 31	
	2011	2010
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 5,224	\$ 8,021
Marketable securities	2,093	3,954
Accounts receivable, net of allowance for doubtful accounts of \$677 and \$328, respectively	10,148	10,137
Inventories	6,142	4,649
Prepaid expenses and other receivables	1,644	2,017
Deferred income taxes	429	230
Total current assets	25,680	29,008
Property and equipment:		
Furniture and fixtures	444	380
Leasehold improvements	363	158
Equipment	3,364	2,714
	4,171	3,252
Accumulated depreciation	2,736	2,130
	1,435	1,122
Deferred income taxes	3,131	
Intangible assets	7,888	9,513
Goodwill	3,120	14,713
TOTAL ASSETS	\$ 41,254	\$ 54,356
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 1,998	\$ 2,094
Accrued compensation	1,013	1,364
Accrued warranty and other	1,534	1,467
Earn-outs payable		2,928
Income taxes payable	67	17
Total current liabilities	4,612	7,870
Deferred income taxes		290
Income taxes payable	316	175
Shareholders' equity:		
Preferred stock, \$.01 par value; 5,000,000 shares authorized, none issued or outstanding	49	49

Edgar Filing: IMAGE SENSING SYSTEMS INC - Form 10-K

Common stock, \$.01 par value; 20,000,000 shares authorized, 4,910,619 and 4,878,519 issued and outstanding, respectively		
Additional paid-in capital	22,619	22,065
Accumulated other comprehensive income (loss)	(180)	52
Retained earnings	13,838	23,855
	<u> </u>	<u> </u>
Total shareholders' equity	36,326	46,021
	<u> </u>	<u> </u>
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	\$ 41,254	\$ 54,356
	<u> </u>	<u> </u>

See accompanying notes to the consolidated financial statements.

Table of Contents

IMAGE SENSING SYSTEMS, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except share data)

	Years ended December 31		
	2011	2010	2009
Revenue:			
Product sales	\$ 17,475	\$ 19,162	\$ 12,483
Royalties	13,046	12,519	12,110
	30,521	31,681	24,593
Cost of revenue (exclusive of amortization shown below):			
Product sales	8,769	7,799	4,297
Restructuring	448		
	9,217	7,799	4,297
Gross profit	21,304	23,882	20,296
Operating expenses:			
Selling, marketing and product support	10,609	9,807	7,201
General and administrative	6,315	4,372	3,779
Research and development	4,424	3,630	3,336
Amortization of intangible assets	1,650	1,218	768
Restructuring	287		
Goodwill impairment	11,685		
Acquisition related expenses (income)	(618)	817	
	34,352	19,844	15,084
Income (loss) from operations	(13,048)	4,038	5,212
Other income (expense), net	9	(123)	7
Income (loss) before income taxes	(13,039)	3,915	5,219
Income tax expense (benefit)	(3,022)	910	1,354
Net income (loss)	\$ (10,017)	\$ 3,005	\$ 3,865
Net income (loss) per share:			
Basic	\$ (2.07)	\$ 0.66	\$ 0.97
Diluted	(2.07)	0.64	0.95
Weighted average number of common shares outstanding:			
Basic	4,834	4,555	3,985
Diluted	4,834	4,667	4,081

See accompanying notes to the consolidated financial statements.

Table of Contents

IMAGE SENSING SYSTEMS, INC.
CONSOLIDATED STATEMENTS OF CASH FLOW
(in thousands)

	Years ended December 31		
	2011	2010	2009
Operating activities:			
Net income (loss)	\$ (10,017)	\$ 3,005	\$ 3,865
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:			
Depreciation	548	498	424
Amortization	1,650	1,218	768
Tax benefit from disqualifying dispositions	37	72	
Stock-based compensation	412	342	341
Goodwill impairment	11,685		
Earn-out income	(618)		
Deferred income tax expense (benefit)	(3,620)	174	138
Changes in operating assets and liabilities, net of acquisition:			
Accounts receivable, net	(11)	(3,711)	960
Inventories	(1,493)	(1,309)	(1,126)
Prepaid expenses and other receivables	281	(1,229)	(212)
Accounts payable	(96)	391	702
Accrued liabilities	(284)	832	(384)
Income taxes payable	215	(250)	(87)
Net cash provided by (used in) operating activities	(1,311)	33	5,389
Investing activities:			
Payments for acquisition		(8,316)	
Payment of earn-outs	(2,361)	(1,541)	(1,192)
Purchases of marketable securities	(7,340)	(8,882)	(6,640)
Sales and maturities of marketable securities	9,201	8,863	6,705
Purchases of property and equipment	(859)	(380)	(694)
Net cash used in investing activities	(1,359)	(10,256)	(1,821)
Financing activities:			
Net proceeds from common stock offering		8,818	
Proceeds from exercise of stock options	105	121	1
Proceeds from bank debt			4,000
Repayment of bank debt		(4,556)	(3,750)
Net cash provided by financing activities	105	4,383	251
Effect of exchange rate changes on cash	(232)	(223)	(24)
Increase (decrease) in cash and cash equivalents	(2,797)	(6,063)	3,795
Cash and cash equivalents at beginning of year	8,021	14,084	10,289
Cash and cash equivalents at end of year	\$ 5,224	\$ 8,021	\$ 14,084

Supplemental disclosure:

Edgar Filing: IMAGE SENSING SYSTEMS INC - Form 10-K

Income taxes paid, net of refunds	\$	57	\$	1,571	\$	1,488
Interest paid	\$	6	\$	155	\$	33

Supplemental non-cash disclosure:

Common stock issued in connection with CitySync acquisition	\$		\$	727	\$	
EIS earn-out payable recorded as additional goodwill	\$		\$	1,665	\$	1,541

See accompanying notes to the consolidated financial statements.

Table of Contents

IMAGE SENSING SYSTEMS, INC.
CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY AND COMPREHENSIVE INCOME (LOSS)
(in thousands, except share data)

	Shares Issued	Common Stock	Additional Paid-In Capital	Accumulated Other Comprehensive Income (Loss)	Retained Earnings	Total
Balance at December 31, 2008	3,985,219	\$ 40	\$ 11,652	\$ (147)	\$ 16,985	\$ 28,530
Common stock issued for options exercised	600		1			1
Stock-based compensation			341			341
Comprehensive income (loss):						
Foreign currency translation adjustment				(24)		(24)
Net income					3,865	3,865
Total comprehensive income						3,841
Balance at December 31, 2009	3,985,819	40	11,994	(171)	20,850	32,713
Tax benefit from disqualifying disposition			72			72
Common stock issued for options exercised	37,700		121			121
Common stock issued in secondary offering, net	798,000	8	8,810			8,818
Common stock issued in CitySync acquisition	57,000	1	726			727
Stock-based compensation			342			342
Comprehensive income (loss):						
Foreign currency translation adjustment				223		223
Net income					3,005	3,005
Total comprehensive income						3,228
Balance at December 31, 2010	4,878,519	49	22,065	52	23,855	46,021
Tax benefit from disqualifying disposition			37			37
Common stock issued for options exercised	32,100		105			105
Stock-based compensation			412			412
Comprehensive income (loss):						
Foreign currency translation adjustment				(232)		(232)
Net loss					(10,017)	(10,017)
Total comprehensive loss						(10,249)
Balance at December 31, 2011	4,910,619	\$ 49	\$ 22,619	\$ (180)	\$ 13,838	\$ 36,326

See accompanying notes to the consolidated financial statements.

Table of Contents

Notes to Consolidated Financial Statements

December 31, 2011

1. DESCRIPTION OF BUSINESS AND SIGNIFICANT ACCOUNTING POLICIES

DESCRIPTION OF BUSINESS

Image Sensing Systems, Inc. (referred to herein as we, the Company, us and our) develops and markets software-based computer enabled detection products for use in traffic, security, police and parking applications. We sell our products primarily to distributors and also receive royalties under a license agreement with a manufacturer/distributor for certain of our products. Our products are used primarily by governmental entities.

PRINCIPLES OF CONSOLIDATION

The Consolidated Financial Statements include the accounts of Image Sensing Systems, Inc. and its wholly-owned subsidiaries: Flow Traffic Ltd. (Flow Traffic) located in Hong Kong; Image Sensing Systems Holdings Limited (ISS/Holdings) and Image Sensing Systems Europe Ltd. (ISS/Europe), both located in the United Kingdom; Image Sensing Systems Europe Limited SP.Z.O.O. (ISS/Poland), located in Poland; ISS Image Sensing Systems Canada Ltd (ISS/Canada) and ISS Canada Sales Corp. (Canada Sales Corp.), both located in Ontario, Canada; and CitySync Limited (CitySync), located in the United Kingdom. All significant inter-company transactions and balances have been eliminated in consolidation.

REVENUE RECOGNITION

We recognize revenue on a sales arrangement when it is realized or realizable and earned, which occurs when all of the following criteria have been met: persuasive evidence of an arrangement exists; delivery and title transfer has occurred or services have been rendered; the sales price is fixed and determinable; collectability is reasonably assured; and all significant obligations to the customer have been fulfilled.

Certain sales may contain multiple elements for revenue recognition purposes. We consider each deliverable that provides value to the customer on a standalone basis as a separable element. Separable elements in these arrangements may include the hardware, software, installation services, training and support. We initially allocate consideration to each separable element using the relative selling price method. Selling prices are determined by us based on either vendor-specific objective evidence (VSOE) (the actual selling prices of similar products and services sold on a standalone basis) or, in the absence of VSOE, our best estimate of the selling price. Factors considered by us in determining estimated selling prices for applicable elements generally include overall economic conditions, customer demand, costs incurred by us to provide the deliverable, as well as our historical pricing practices. Under these arrangements, revenue associated with each delivered element is recognized in an amount equal to the lesser of the consideration initially allocated to the delivered element or the amount for which payment is not deemed contingent upon future delivery of other elements in the arrangement. Under arrangements where special acceptance protocols exist, installation services and training may not be considered separable. Under those circumstances, revenue for the entire arrangement is recognized upon the completion of installation, training and fulfillment of any other significant obligations specific to the terms of the arrangement. Arrangements that do not contain any separable elements are typically recognized when the products are shipped and title has transferred to the customer.

Revenue from arrangements for services such as maintenance, repair, consulting and technical support are recognized either as the service is performed or ratably over the defined contractual period for service maintenance contracts.

Econolite Control Products, Inc. (Econolite) is a licensee that sells certain of our products in North America, the Caribbean and Latin America. The royalty of approximately 50% of the gross profit on licensed products is recognized when the products are shipped or delivered by Econolite to its customers.

We record provisions against sales revenue for estimated returns and allowances in the period when the related revenue is recorded based on historical sales returns and changes in end user demand.

Revenue is recorded net of taxes collected from customers that are remitted to governmental authorities, with the collected taxes recorded as current liabilities until remitted to the relevant government authority.

Table of Contents

SHIPPING AND HANDLING

Freight revenue billed to customers is reported within revenue on the Consolidated Statements of Operations, and expenses incurred for shipping products to customers are reported within cost of revenue on the Consolidated Statements of Operations.

CASH AND CASH EQUIVALENTS

We consider all highly liquid investments with an original maturity of three months or less to be cash equivalents. Cash equivalents, both inside and outside the United States, are invested in money market funds and bank deposits in local currency denominations. Cash located in foreign banks was \$2.4 million and \$3.3 million at December 31, 2011 and 2010, respectively. We hold our cash and cash equivalents with financial institutions and, at times, the amounts of our balances may be in excess of insurance limits.

MARKETABLE SECURITIES

Our investment portfolio is currently comprised of high-grade municipal bonds, U.S. government securities and commercial paper. We classify marketable debt securities as available-for-sale investments and these securities are stated at their estimated fair value. The value of these securities is subject to market and credit volatility during the period these investments are held.

ACCOUNTS RECEIVABLE

We grant credit to customers in the normal course of business and generally do not require collateral. Management performs on-going credit evaluations of customers. The allowance for doubtful accounts is based on management's assessment of the collectability of specific customer accounts and includes consideration of the credit worthiness and financial condition of those specific customers. We record an allowance to reduce receivables to the amount that is reasonably believed to be collectible and considers factors such as the financial condition of the customer and the aging of the receivables. If there is a deterioration of a customer's financial condition, if we become aware of additional information related to the credit worthiness of a customer, or if future actual default rates on trade receivables in general differ from those currently anticipated, we may have to adjust our allowance for doubtful accounts, which would affect earnings in the period the adjustments were made.

INVENTORIES

Inventories are primarily electronic components and finished goods and are valued at the lower of cost or market on the first-in, first-out accounting method.

PROPERTY AND EQUIPMENT

Property and equipment are carried at cost. Additions, replacements, and improvements are capitalized at cost, while maintenance and repairs are charged to operations as incurred. Depreciation is recorded using the straight-line method over the estimated useful lives of the assets. Leasehold improvements are depreciated over the shorter of the estimated useful lives of the assets or the contractual term of the lease, with consideration of lease renewal options if renewal appears probable. Depreciation is recorded over a three- to seven-year period for financial reporting purposes and by accelerated methods for income tax purposes.

INCOME TAXES

We record a tax provision for the anticipated tax consequences of the reported results of operations. Deferred tax assets and liabilities are measured using the currently enacted tax rates that apply to taxable income in effect for the years in which those deferred tax assets and liabilities are expected to be realized or settled. We record a valuation allowance to reduce deferred tax assets to the amount that is believed more likely than not to be realized. We believe it is more likely than not that forecasted income, including income that may be generated as a result of certain tax planning strategies, together with the tax effects of the deferred tax liabilities, will be sufficient to fully recover the remaining net realizable value of its deferred tax assets. In the event that all or part of the net deferred tax assets are determined not to be realizable in the future, an adjustment to the valuation allowance would be charged to earnings in the period such determination is made. In addition, the calculation of tax liabilities involves significant judgment in estimating the impact of uncertainties in the application of complex tax laws. Resolution of these uncertainties in a manner inconsistent with management's expectations could have a material impact on the our financial condition and operating results. We recognize penalties and interest expense related to unrecognized tax benefits in income tax expense.

GOODWILL AND INTANGIBLE ASSETS

Edgar Filing: IMAGE SENSING SYSTEMS INC - Form 10-K

Goodwill represents the excess of acquisition costs over the fair value of the net assets of businesses acquired. Goodwill is not amortized, but instead tested at least annually for impairment. Goodwill is also tested for impairment as changes in circumstances occur indicating that the carrying value may not be recoverable. EIS asset purchase related goodwill is tested on October 1 of each year. CitySync goodwill is tested on April 1 of each year.

Table of Contents

Goodwill impairment testing first requires a comparison of the fair value of each reporting unit to the carrying value. If the carrying value of the reporting unit exceeds fair value, goodwill is considered impaired. Impairment testing for indefinite-lived intangible assets requires a comparison between the fair value and the carrying value of the asset. If the carrying value of the asset exceeds its fair value, the asset is reduced to fair value. See Note 5 to the Consolidated Financial Statements for additional information on goodwill.

Intangible assets with finite lives are amortized on a straight-line basis over the expected period to be benefited by future cash flows and reviewed for impairment. Fair values of goodwill and intangible assets are primarily determined using discounted cash flow analyses. At both December 31, 2011 and 2010, we determined there was no impairment of intangible assets. At both December 31, 2011 and 2010, there were no indefinite-lived intangible assets.

IMPAIRMENT OF LONG-LIVED ASSETS

We review the carrying value of long-lived assets or asset groups, such as property and equipment and intangibles subject to amortization, when events or changes in circumstances such as asset utilization, physical change, legal factors, or other matters indicate that the carrying value may not be recoverable. When this review indicates the carrying value of an asset or asset group exceeds the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the asset or asset group, we recognize an asset impairment charge against operations. The amount of the impairment loss recorded is the amount by which the carrying value of the impaired asset or asset group exceeds its fair value. No such impairment losses were recorded during the years ended December 31, 2011, 2010 or 2009.

USE OF ESTIMATES

Preparing financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the Consolidated Financial Statements and reported amounts of revenues and expenses during the reporting periods. Actual results could differ from the estimates.

RESEARCH AND DEVELOPMENT

Research and development costs are charged to operations in the period incurred.

WARRANTIES

We generally provide a standard two-year warranty on product sales. Reserves to honor warranty claims are estimated and recorded at the time of sale based on historical claim information and are analyzed and adjusted periodically based on claim trends.

ADVERTISING

Advertising costs are charged to operations in the period incurred and totaled \$157,000, \$153,000 and \$151,000 for the years ended December 31, 2011, 2010 and 2009, respectively.

FOREIGN CURRENCY

The financial position and results of operations of our foreign subsidiaries are measured using local currency as the functional currency. Assets and liabilities are translated using fiscal period-end exchange rates, and statements of operations are translated using average exchange rates applicable to each period, with the resulting translation adjustments recorded as a separate component of shareholders' equity under Accumulated other comprehensive income (loss). Gains and losses from foreign currency transactions are recognized in the Consolidated Statements of Operations.

NET INCOME (LOSS) PER SHARE

Basic income (loss) per share excludes dilution and is computed by dividing net income (loss) attributable to common shareholders by the weighted-average number of common shares outstanding during the period. Diluted income (loss) per share includes potentially dilutive common shares consisting of stock options, restricted stock and warrants using the treasury stock method. Under the treasury stock method, shares associated with certain stock options have been excluded from the diluted weighted average shares outstanding calculation because the exercise of those options would lead to a net reduction in common shares outstanding. As a result, stock options to acquire 477,000, 133,000 and 36,000 weighted common shares have been excluded from the diluted weighted shares outstanding calculation for the years ended December 31, 2011, 2010 and 2009, respectively, because the exercises prices were greater than the average market price of the common shares during the

period and were excluded from the calculation of diluted net income per share.

Table of Contents

For the years ended December 31, 2010 and 2009, respectively, 112,000 and 96,000 common share equivalents were included in the computation of diluted net income per share.

USE OF ESTIMATES

The preparation of financial statements in accordance with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities as of the date of the financial statements, and reported amounts of revenue and expense during the reporting period. Predicting future events is inherently an imprecise activity and, as such, requires the use of judgment. Ultimate results could differ from those estimates. Changes in these estimates will be reflected in the financial statements in future periods.

STOCK-BASED COMPENSATION

We measure the cost of employee services received in exchange for the award of equity instruments based on the fair value of the award at the date of grant and recognize the cost over the period during which an employee is required to provide services in exchange for the award. Stock options are granted at exercise prices equal to the closing market price of our stock on the date of grant.

For purposes of determining estimated fair value of stock-based payment awards, we utilize a Black-Scholes option pricing model, which requires the input of certain assumptions requiring management judgment. Because our employee stock option awards have characteristics significantly different from those of traded options, and because changes in the input assumptions can materially affect fair value estimates, existing models may not provide a reliable single measure of the fair value of employee stock options. Management will continue to assess the assumptions and methodologies used to calculate estimated fair value of stock-based compensation. Circumstances may change and additional data may become available over time that could result in changes to these assumptions and methodologies and thereby materially impact the fair value determination of future grants of stock-based payment awards. If factors change and we employ different assumptions in future periods, the compensation expense recorded may differ significantly from the stock-based compensation expense recorded in the current period.

SUBSEQUENT EVENTS

Events that have occurred subsequent to December 31, 2011 have been evaluated through the date the Consolidated Financial Statements were issued. There have been no subsequent events that occurred during such period that would require recognition or disclosure in the Consolidated Financial Statements as of or for the fiscal year ended December 31, 2011.

NEW ACCOUNTING PRONOUNCEMENTS

In October 2009, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2009-13, *Multiple-Deliverable Revenue Arrangements*. ASU 2009-13 amends the criteria established in Accounting Standards Codification (ASC) 605-25, *Revenue Recognition - Multiple Element Arrangements*, for separating consideration in multiple-deliverable arrangements. This guidance establishes a selling price hierarchy for determining the selling price of a deliverable. Specifically, the selling price used for each deliverable is based on: (a) vendor-specific objective evidence if available; (b) third-party evidence if vendor-specific objective evidence is not available; or (c) estimated selling price if neither vendor-specific objective evidence nor third-party evidence is available. In addition, ASU 2009-13 eliminates the residual method of allocation and requires that arrangement consideration be allocated at the inception of the arrangement to all deliverables using the relative selling price method. Also, ASU 2009-13 expands required disclosures related to a vendor's multiple-deliverable revenue arrangements. The provisions of ASU 2009-13 were effective prospectively for revenue arrangements entered into or materially modified by us as of the beginning of the current year. Our adoption of the provisions of ASU 2009-13 did not have a material impact on its Consolidated Financial Statements. We incorporated the appropriate disclosure provisions of ASU 2009-13 upon adoption.

In May 2011, the FASB issued ASU 2011-04, *Amendments to Achieve Common Fair Value Measurement and Disclosure Requirements in U.S. GAAP and IFRS*, which also amends ASC 820. The purpose of this guidance is to achieve commonality between US GAAP and IFRS pertaining to fair value measurement and disclosure requirements. It changes certain fair value measurement principles and enhances the disclosure requirements particularly for Level 3 fair value measurements. The amendment becomes effective for annual periods beginning after December 15, 2011. We do not believe the adoption of this guidance will have a material impact on our Consolidated Financial Statements.

Table of Contents

In June 2011, the FASB issued ASU 2011-05, *Presentation of Comprehensive Income*, which provides an entity the option to present the total of comprehensive income, the components of net income, and the components of other comprehensive income either in a single continuous statement of comprehensive income or in two separate but consecutive statements. In both choices, an entity is required to present each component of net income along with total net income, each component of other comprehensive income along with a total for other comprehensive income, and a total amount for comprehensive income. This eliminates the option to present the components of other comprehensive income as part of the statement of changes in shareholders' equity. The amendments do not change the items that must be reported in other comprehensive income or when an item of other comprehensive income must be reclassified to net income. Additionally, in December 2011, the FASB issued ASU 2011-12, *Deferral of the Effective Date for Amendments to the Presentation of Reclassifications of Items Out of Accumulated Other Comprehensive Income in Accounting Standards Update No. 2011-05*, which indefinitely defers the requirement in ASU 2011-05 to present reclassification adjustments out of accumulated other comprehensive income by component in both the statement in which net income is presented and the statement in which other comprehensive income is presented. During the deferral period, the existing requirements in U.S. GAAP for the presentation of reclassification adjustments must continue to be followed. The amendments are effective for fiscal years, and for interim periods within those fiscal years, beginning after December 15, 2011. The amendments are to be applied retrospectively, with early adoption permitted. We do not believe the adoption of this guidance will have a material impact on our Consolidated Financial Statements.

In September 2011, the FASB issued ASU 2011-08, *Testing Goodwill for Impairment (Topic 350)*. ASU 2011-08 simplifies how an entity is required to test goodwill for impairment by allowing the entity to first assess qualitative factors to determine whether it is necessary to perform the two-step quantitative goodwill impairment test. Previous guidance under Topic 350 required an entity to test goodwill for impairment, on at least an annual basis, by comparing the fair value of a reporting unit with its carrying amount, including goodwill. Under the provisions of ASU 2011-08, an entity is no longer required to calculate the fair value of a reporting unit unless the entity determines, based on a qualitative assessment, that it is more likely than not that its fair value is less than its carrying amount. ASU 2011-08 is effective for annual and interim goodwill impairment tests performed for fiscal years beginning after December 15, 2011 which, for us, will be the beginning of fiscal year 2012. We do not believe the adoption of this guidance will have a material impact on our Consolidated Financial Statements.

2. FAIR VALUE MEASUREMENTS AND MARKETABLE SECURITIES

The guidance for fair value measurements establishes the authoritative definition of fair value, sets out a framework for measuring fair value and outlines the required disclosures regarding fair value measurements. Fair value is the price that would be received to sell an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants at the measurement date. We use a three-tier fair value hierarchy based upon observable and non-observable inputs as follows:

- Level 1 observable inputs such as quoted prices in active markets;
- Level 2 inputs, other than the quoted prices in active markets, that are observable either directly or indirectly; and
- Level 3 unobservable inputs in which there is little or no market data, which require the reporting entity to develop its own assumptions.

Assets and Liabilities that are Measured at Fair Value on a Recurring Basis

The fair value hierarchy requires the use of observable market data when available. In instances in which the inputs used to measure fair value fall into different levels of the fair value hierarchy, the fair value measurement has been determined based on the lowest level input that is significant to the fair value measurement in its entirety. Our assessment of the significance of a particular item to the fair value measurement in its entirety requires judgment, including the consideration of inputs specific to the asset or liability.

Investments are comprised of high-grade municipal bonds, U.S. government securities and commercial paper and are classified as Level 1, as they trade with sufficient frequency and volume to enable us to obtain pricing information on an ongoing basis.

The amortized cost and market value of our available-for-sale securities by major security type were as follows (in thousands):

	December 31,	
	2011	2010
U.S. government obligations	\$ 422	\$ 422
State and municipal bonds	866	2,217
Corporate obligations	1,227	1,315

\$ 2,093 \$ 3,954

Table of Contents

We evaluate impairment at each reporting period for securities where the fair value of the investment is less than its cost. Unrealized gains and losses on available-for-sale investments were immaterial as of December 31, 2011 and 2010.

Classification of available-for-sale investments as current or noncurrent is dependent upon our intended holding period, the security's maturity date, or both. Contractual maturities were less than one year for all available-for-sale investments as of December 31, 2011. There were no available-for-sale investments with gross unrealized losses that have been in a continuous unrealized loss position for more than 12 months as of December 31, 2011 and 2010.

Proceeds from maturities or sales of available-for-sale securities were \$9.2 million, \$8.9 million and \$6.7 million during the years ended December 31, 2011, 2010 and 2009, respectively. Realized gains and losses are determined on the specific identification method. Realized gains and losses related to sales of available-for-sale securities during the years ended December 31, 2011, 2010 and 2009 were immaterial and included in other income (expense).

Nonfinancial Assets Measured at Fair Value on a Nonrecurring Basis

Our goodwill, intangible assets and other long-lived assets are nonfinancial assets that were acquired either as part of a business combination, individually or with a group of other assets. These nonfinancial assets were initially, and have historically been, measured and recognized at amounts equal to the fair value determined as of the date of acquisition.

Periodically, these nonfinancial assets are tested for impairment by comparing their respective carrying values to the estimated fair value of the reporting unit or asset group in which they reside. In the quarter ended September 30, 2011, certain of these nonfinancial assets were deemed to be impaired (see Note 5), and we recognized an impairment loss equal to the amount by which the carrying value of each reporting unit exceeded their estimated fair value. Fair value measurements of the reporting units were estimated using certain Level 3 inputs requiring management judgment, including projections of economic conditions and customer demand, revenue and margins, changes in competition, operating costs, working capital requirements, and new product introductions.

Financial Instruments not Measured at Fair Value

Certain of our financial instruments are not measured at fair value and are recorded at carrying amounts approximating fair value, based on their short-term nature. These financial instruments include cash and cash equivalents, accounts receivable and accounts payable.

3. INVENTORIES

Inventories consisted of the following (in thousands):

	December 31,	
	2011	2010
Electronic components	\$ 2,924	\$ 2,114
Finished goods	3,218	2,535
Total	\$ 6,142	\$ 4,649

4. ACQUISITION

On June 21, 2010, we purchased all of the outstanding equity of CitySync Limited (CitySync), a privately-held developer and marketer of automatic number plate recognition (ANPR) products. We believe the CitySync acquisition expands our addressable market, strengthens our selling presence in Europe and extends the opportunities for hybrid product developments. The total purchase price was \$9.6 million comprised of \$7.9 million in cash plus 57,000 shares of our common stock. Following the acquisition, CitySync became a wholly-owned subsidiary of ISS/Europe.

Edgar Filing: IMAGE SENSING SYSTEMS INC - Form 10-K

Table of Contents

The purchase price was allocated based on the fair values of assets acquired and liabilities assumed. The following table summarizes the allocation of the CitySync purchase price, including acquisition costs, to the fair values of the assets acquired and liabilities assumed at the date of acquisition (in thousands):

Consideration transferred:	
Cash	\$ 7,871
Fair value of common stock	727
Estimated fair value of earn-out	1,010
	<hr/>
	9,608
Allocation:	
Accounts receivable, inventories and other current assets	\$ (1,684)
Property and equipment	(242)
Current liabilities assumed	2,450
Deferred income taxes	1,876
Developed technology	(3,300)
Trade names	(1,900)
Other intangibles	(1,500)
	<hr/>
Goodwill	\$ 5,308
	<hr/>

The results of CitySync operations are included in the accompanying Consolidated Financial Statements since the date of the acquisition and are reported in the CitySync segment. The following pro forma summary presents the results of operations as if the acquisition had occurred on January 1, 2009. The table below includes our results for the periods as shown and for CitySync based on a January fiscal year. The pro forma results are not necessarily indicative of the results that would have been achieved had the CitySync acquisition taken place on that date (in thousands, except per share amounts):

	Year Ended December 31,		
	2011	2010	2009
	(Actual)	(Pro Forma)	(Pro Forma)
Total revenue	\$ 30,521	\$ 34,088	\$ 32,034
Net income (loss)	(10,017)	2,508	2,937
Net income (loss) per share:			
Basic	\$ (2.07)	\$ 0.55	\$ 0.73
Diluted	\$ (2.07)	\$ 0.53	\$ 0.71

5. GOODWILL AND INTANGIBLE ASSETS

Goodwill

Because the goodwill and intangible assets related to the CitySync acquisition are accounted for in Great Britain Pounds, they are impacted by period-end rates of exchange to United States Dollars and therefore may vary in different reporting periods.

Goodwill consisted of the following reporting units (dollars in thousands):

Edgar Filing: IMAGE SENSING SYSTEMS INC - Form 10-K

	December 31, 2010	Additions	Impairments	Foreign Currency	December 31, 2011
Flow Traffic:					
Flow Traffic goodwill	\$ 1,050	\$	\$	\$	\$ 1,050
Accumulated impairment losses			(1,050)		(1,050)
Flow Traffic goodwill	1,050		(1,050)		
EIS:					
EIS goodwill	8,239				8,239
Accumulated impairment losses			(6,867)		(6,867)
EIS goodwill	8,239		(6,867)		1,372
CitySync:					
CitySync goodwill	5,424			92	5,516
Accumulated impairment losses			(3,768)		(3,768)
CitySync goodwill	5,424		(3,768)	92	1,748
Total goodwill	\$ 14,713	\$	\$ (11,685)	\$ 92	\$ 3,120

Edgar Filing: IMAGE SENSING SYSTEMS INC - Form 10-K

Table of Contents

	December 31, 2009	Additions	Impairments	Foreign Currency	December 31, 2010
Flow Traffic:					
Flow Traffic goodwill	\$ 1,050	\$	\$	\$	\$ 1,050
Accumulated impairment losses					
Flow Traffic goodwill	1,050				1,050
EIS:					
EIS goodwill	6,574	1,665			8,239
Accumulated impairment losses					
EIS goodwill	6,574	1,665			8,239
CitySync:					
CitySync goodwill		5,308		116	5,424
Accumulated impairment losses					
CitySync goodwill		5,308		116	5,424
Total goodwill	\$ 7,624	\$ 6,973	\$	\$ 116	\$ 14,713

We apply a fair value based impairment test to the carrying value of goodwill for each reporting unit on an annual basis and on an interim basis if certain events or circumstances indicate that an impairment loss may have occurred. In the third quarter of 2011 the we experienced a significant and sustained decline in its stock price. The decline resulted in our market capitalization falling significantly below the recorded value of its consolidated net assets. As a result, we concluded a triggering event had occurred and performed an impairment test of goodwill for each reporting unit as of the end of the third quarter of 2011.

Based on the results of our initial assessment of impairment of its goodwill (step 1), we determined that the carrying value of each reporting unit exceeded its estimated fair value. Therefore, we performed the second step of the impairment assessment to determine the implied fair value of goodwill. In performing the goodwill assessment, we used current market capitalization, discounted cash flows and other factors as the best evidence of fair value.

We recorded goodwill impairment charges in the third quarter of 2011 of \$1.1 million, \$3.7 million, and \$6.9 million for the Flow Traffic Ltd., CitySync and RTMS reporting units, respectively.

Intangible Assets

Intangible assets consisted of the following (dollars in thousands):

	December 31, 2011			
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Value	Weighted Average Useful Life (in Years)
Developed technology	\$ 7,352	\$ (2,570)	\$ 4,782	5.5
Trade names	3,188	(1,356)	1,832	3.7
Other intangible assets	1,769	(495)	1,274	4.9
Total	\$ 12,309	\$ (4,421)	\$ 7,888	4.9

December 31, 2010

	Gross Carrying Amount	Accumulated Amortization	Net Carrying Value	Weighted Average Useful Life (in Years)
Developed technology	\$ 7,364	\$ (1,705)	\$ 5,659	6.5
Trade names	3,193	(870)	2,323	4.7
Other intangible assets	1,774	(243)	1,531	5.9
Total	\$ 12,331	\$ (2,818)	\$ 9,513	5.9

Table of Contents

The estimated future amortization expense related to other intangible assets for the next five fiscal years is as follows (dollars in thousands):

	Amortization Expense
2012	\$ 1,561
2013	1,283
2014	1,267
2015	1,234
2016	779

Future amortization amounts presented above are estimates. Actual future amortization expense may be different due to future acquisitions, impairments, changes in amortization periods, or other factors.

In connection with the triggering event discussed above, during the third quarter of 2011, we reviewed our long-lived assets and determined that none of the long-lived assets were impaired for its asset groups. The determination was based on reviewing estimated undiscounted cash flows for our asset groups, which were greater than their carrying values. As required under GAAP, this impairment analysis occurred before the goodwill impairment assessment.

The evaluation of the recoverability of long-lived assets requires us to make significant estimates and assumptions. These estimates and assumptions primarily include, but are not limited to, the identification of the asset group at the lowest level of independent cash flows and the primary asset of the group; and long-range forecasts of revenue, reflecting management's assessment of general economic and industry conditions, operating income, depreciation and amortization and working capital requirements.

6. CREDIT FACILITIES

We have a revolving line of credit and had term loans with Associated Bank, National Association (Associated Bank) that were initially entered into on May 1, 2008. Our current revolving line of credit agreement (Credit Agreement) with Associated Bank provides up to \$5.0 million. The Credit Agreement expires in May 2013 and bears interest at an annual rate equal to the greater of (a) 3.5% or (b) LIBOR plus 2.75%. Any advances are secured by inventories, accounts receivable and equipment. We are subject to certain financial covenants under the Credit Agreement, including minimum debt service coverage ratios, minimum cash flow coverage ratios and financial measures. At December 31, 2011, we had no borrowings under the Credit Agreement, and we were in compliance with all of its financial covenants.

In December 2009, we entered into a term loan agreement for \$4.0 million with Associated Bank, which was fully repaid in September 2010.

7. WARRANTIES

Warranty liability and related activity consisted of the following (in thousands):

	Years Ended December 31,		
	2011	2010	2009
Beginning balance	\$ 624	\$ 289	\$ 217
Warranty provisions	198	484	175
Warranty claims	(318)	(149)	(103)
Adjustments to preexisting warranties	(81)		
Ending balance	\$ 423	\$ 624	\$ 289

8. LEASE COMMITMENTS

We rent office space and equipment under operating lease agreements expiring at various dates through January 2015. Rent expense for office facilities was \$1.1 million in 2011, \$777,000 in 2010 and \$585,000 in 2009.

Edgar Filing: IMAGE SENSING SYSTEMS INC - Form 10-K

Future minimum annual lease payments under noncancelable operating leases for the years ending December 31, 2012, 2013, 2014 and 2015 are \$548,000, \$397,000, \$287,000 and \$16,000, respectively.

Table of Contents
9. INCOME TAXES

The components of income (loss) before income taxes were as follows (in thousands):

	Years Ended December 31,		
	2011	2010	2009
Income (loss) before income taxes:			
Domestic	\$ (6,761)	\$ 2,789	\$ 3,925
Foreign	(6,278)	1,126	1,294
Total	\$ (13,039)	\$ 3,915	\$ 5,219

The components of income tax expense (benefit) are as follows (in thousands):

	Years Ended December 31,		
	2011	2010	2009
Current:			
Federal	\$ 279	\$ 983	\$ 1,222
State	4	(65)	23
Foreign	315	25	(29)
	598	943	1,216
Deferred:			
Federal	(2,358)	(32)	82
State	(35)	(1)	5
Foreign	(1,227)		51
	(3,620)	(33)	138
Total income tax expense (benefit)	\$ (3,022)	\$ 910	\$ 1,354

A reconciliation from the federal statutory income tax provision to our effective tax expense (benefit) is as follows (in thousands):

	Years Ended December 31,		
	2011	2010	2009
United States federal tax statutory rate	\$ (4,433)	\$ 1,331	\$ 1,774
State taxes, net of federal benefit	(36)	(47)	18
Goodwill impairment	1,299		
Research and development tax credits	(412)	(454)	(231)
Non-deductible acquisition expenses and earn-out	(155)	238	
Domestic production activities deduction	(38)	(111)	(62)

Edgar Filing: IMAGE SENSING SYSTEMS INC - Form 10-K

Foreign provision (less than) greater than U.S. tax rate	641	(43)	(58)
Valuation allowances against deferred tax assets	121	(55)	
Stock option expense	82	75	74
Adjustment of prior year tax credits and refunds	50	(64)	(77)
Uncertain tax positions	(138)	(33)	(38)
Other	(3)	73	(46)
	<u> </u>	<u> </u>	<u> </u>
	\$ (3,022)	\$ 910	\$ 1,354
	<u> </u>	<u> </u>	<u> </u>

Edgar Filing: IMAGE SENSING SYSTEMS INC - Form 10-K

Table of Contents

A summary of the deferred tax assets and liabilities is as follows (in thousands):

	December 31,	
	2011	2010
Current deferred tax assets (liabilities):		
Accrued compensation and benefits	\$ 59	\$ 55
Prepaid expenses and other	(22)	(43)
Inventory reserves	169	
Allowance for doubtful accounts	119	75
Warranty reserves	104	143
Total current deferred tax asset	429	230
Non-current deferred tax assets (liabilities):		
Intangible and other assets	2,089	(471)
Foreign net operating loss carryforwards	991	
Non-qualified stock option expense	192	164
Property, equipment and other	35	17
Non-current deferred tax asset (liability):	3,307	(290)
Less: valuation allowance	(176)	
Non-current deferred tax asset (liability), net	3,131	(290)
Total net deferred tax asset (liability)	\$ 3,560	\$ (60)

As of December 31, 2011, our subsidiaries in the United Kingdom and Hong Kong had net operating loss carryovers of \$3,382,000 and \$1,067,000, respectively. These net operating loss carryovers will not expire under local tax law. We determined that the benefit of our Hong Kong subsidiary's net operating loss carryover of \$1,067,000 is uncertain. Accordingly, as of December 31, 2011, we had a full valuation allowance against the Hong Kong subsidiary's deferred tax asset in the amount of \$176,000.

In accordance with ASC 740-30, we have not recognized a deferred tax liability for the undistributed earnings of certain of its foreign operations because those subsidiaries have invested or will invest the undistributed earnings indefinitely. At December 31, 2011, undistributed earnings were approximately \$1.6 million. It is impractical for us to determine the amount of unrecognized deferred tax liabilities on these indefinitely reinvested earnings. Deferred taxes are recorded for earnings of foreign operations when we determine that such earnings are no longer indefinitely reinvested.

We realize an income tax benefit from the exercise or early disposition of certain stock options. This benefit results in a decrease in current income taxes payable and an increase in additional paid-in capital.

A reconciliation of the beginning and ending amount of the tax liability for uncertain tax positions is as follows (in thousands):

Balance at January 1, 2010	\$ 208
Additions for current year tax positions	
Reductions as a result of lapses in statute of limitations	(33)
Balance at December 31, 2010	175
Additions for current year tax positions	
Reductions as a result of lapses in statute of limitations	(139)

Balance at December 31, 2011	\$	36
------------------------------	----	----

Included in the balance of uncertain tax positions at December 31, 2011 are potential benefits of \$1,000 that, if recognized, would affect the effective tax rate. The amount of unrecognized tax benefits are not expected to change materially within the next 12 months. At December 31, 2011 and December 31, 2010, we had no accrued interest related to uncertain income tax positions. At December 31, 2011 and December 31, 2010, no accrual for penalties related to uncertain tax positions existed. Interest and penalties related to uncertain tax positions are included in interest expense and general and administrative expense, respectively, on the Consolidated Statements of Operations.

We are subject to income taxes in the U.S. federal jurisdiction and various state and foreign jurisdictions. Tax regulations within each jurisdiction are subject to the interpretation of the related tax laws and require significant judgment to apply. Generally, we are subject to U.S. federal, state, local and foreign tax examinations by taxing authorities for years after the fiscal year ended December 31, 2007.

Table of Contents

At December 31, 2011 and December 31, 2010, certain of our foreign subsidiaries were expected to receive income tax refunds within the next fiscal year. As a result, at December 31, 2011 and December 31, 2010, we recognized a current income tax receivable of \$488,000 and \$314,000, respectively.

10. LICENSING

We have sublicensed the exclusive right to manufacture and market the Autoscope technology in North America, the Caribbean and Latin America to Econolite and receive royalties from Econolite on sales of the Autoscope system in those territories as well as in non-exclusive territories as allowed from time to time. We may terminate our agreement with Econolite if a minimum annual sales level is not met or if Econolite fails to make royalty payments as required by the agreement. The agreement's term runs to 2031, unless terminated by either party upon three years' notice.

We recognized royalty income from this agreement of \$13.0 million, \$12.5 million and \$12.1 million in 2011, 2010 and 2009, respectively.

11. SIGNIFICANT CUSTOMERS AND CONCENTRATION OF CREDIT RISK

Royalty income from Econolite comprised 43%, 40% and 49% of revenue in the years ended December 31, 2011, 2010 and 2009, respectively. Accounts receivable from Econolite were \$4.3 million and \$2.6 million at December 31, 2011 and 2010, respectively. Major disruptions in the manufacturing and distribution of our products by Econolite or the inability of Econolite to make payments on its accounts receivable with us could have a material adverse effect on our business, financial condition and results of operations. Econolite was the only customer that comprised more than 10% of accounts receivable as of December 31, 2011. In April 2011, the Chief Executive Officer of the parent company of Econolite was elected to our Board of Directors.

In addition to Econolite, one international customer comprised more than 10% of accounts receivable, accounting for 15% of the balance at December 31, 2010.

12. RETIREMENT SAVINGS PLAN

Substantially all of our employees in the United States are eligible to participate in a qualified defined contribution 401(k) plan in which participants may elect to have a specified portion of their salary contributed to the plan and we may make discretionary contributions to the plan. Flow Traffic and CitySync are obligated to contribute to certain employee pension plans. We made contributions totaling \$170,000, \$131,000 and \$98,000 to the plans for 2011, 2010 and 2009, respectively.

13. SHAREHOLDERS' EQUITY

Equity Financing

In April 2010, we sold 798,000 shares of our common stock to investors at \$12.25 per share under a registration statement on Form S-3 declared effective by the Securities and Exchange Commission in December 2009. Net of underwriting fees and other offering expenses, we received \$8.8 million in net proceeds from the offering.

Stock-Based Compensation

We compensate officers, directors, and employees with stock-based compensation under two stock plans approved by the Company's shareholders in 2006 and 2011 and administered under the supervision of our Board of Directors. In February 1995 and April 2005, we adopted the 1995 Long-Term Incentive and Stock Option Plan (the 1995 Plan) and the 2005 Stock Incentive Plan (the 2005 Plan), respectively, which provide for the granting of incentive (ISO) and non-qualified (NQO) stock options, stock appreciation rights, restricted stock awards and performance awards to our officers, directors, employees, consultants and independent contractors. The 1995 Plan terminated in February 2005, although the options granted under the 1995 Plan remain outstanding according to their terms. Options granted under the Plans generally vest over three to five years and have a contractual term of six to ten years. At December 31, 2011, a total of 68,500 shares were available for future grant under the 2005 Plan.

Edgar Filing: IMAGE SENSING SYSTEMS INC - Form 10-K

Table of Contents

The following table summarizes stock option activity for 2011, 2010 and 2009:

	2011		2010		2009	
	Shares	WAEP*	Shares	WAEP*	Shares	WAEP*
Options outstanding at beginning of year	463,433	\$ 9.11	431,133	\$ 8.10	373,733	\$ 10.59
Granted	156,000	\$ 10.21	85,000	\$ 12.33	68,000	\$ 8.62
Exercised	(32,100)	\$ 3.29	(37,700)	\$ 3.31	(600)	\$ 1.30
Forfeited or expired	(52,000)	\$ 11.16	(15,000)	\$ 6.69	(10,000)	\$ 9.22
Options outstanding at end of year	535,333	\$ 9.58	463,433	\$ 9.11	431,133	\$ 8.10
Options eligible for exercise at year-end	249,333	\$ 8.81	213,058	\$ 7.64	181,383	\$ 6.39

*Weighted Average Exercise Price

Options outstanding at December 31, 2011 had a weighted average remaining contractual term of 4.1 years and an aggregate intrinsic value of approximately \$250,000. Options eligible for exercise at December 31, 2011 had a weighted average remaining contractual term of 2.7 years and an aggregate intrinsic value of \$250,000.

The total intrinsic value of stock options exercised during the fiscal years ended December 31, 2011, 2010, 2009 was \$211,000, \$352,000 and \$7,000, respectively. The total fair value of option shares vested during 2011, 2010 and 2009 was \$977,000, \$716,000 and \$578,000, respectively.

The fair value of stock options granted under stock-based compensation programs has been estimated as of the date of each grant using the multiple option form of the Black-Scholes valuation model, based on the grant price and assumptions regarding the expected grant life, stock price volatility, dividends, and risk-free interest rates. Each vesting period of an option award is valued separately, with this value being recognized evenly over the vesting period. The weighted average grant date fair value of options to purchase 156,000, 85,000 and 68,000 shares granted for the years ended December 31, 2011, 2010 and 2009 was \$522,000, \$348,000 and \$279,000, respectively. The weighted average assumptions used to determine the fair value of stock options granted during those fiscal years were as follows:

	2011	2010	2009
Expected life (in years)	3.1	2.8	2.5
Risk-free interest rate	1.47%	1.39%	2.63%
Expected volatility	44%	78%	45%
Dividend yield	0%	0%	0%

The expected life represents the period that the stock option awards are expected to be outstanding and was determined based on historical and anticipated future exercise and expiration patterns. The risk-free interest rate used is based on the yield of constant maturity U.S. Treasury bonds on the grant date with a remaining term equal to the expected life of the grant. We estimate stock price volatility based on a historical weekly price observation. The dividend yield assumption is based on the annualized current dividend divided by the share price on the grant date. We have not historically paid any dividends and do not expect to do so in the foreseeable future.

Other information pertaining to options for the years ended 2011, 2010 and 2009 is as follows:

2011 2010 2009

Edgar Filing: IMAGE SENSING SYSTEMS INC - Form 10-K

Total intrinsic value (at exercise) of stock options exercised	\$ 211,000	\$ 352,000	\$ 7,000
Cash received from the exercise of stock options	\$ 105,000	\$ 121,000	\$ 1,000
Stock-based compensation expense recognized within general and administrative expense on the consolidated statements of operations	\$ 412,000	\$ 342,000	\$ 341,000
Excess income tax benefits from exercise of stock options	\$ 37,000	\$ 72,000	\$

At December 31, 2011, there was approximately \$891,000 of total stock option compensation expense related to non-vested awards not yet recognized, which is expected to be recognized over a weighted-average period of 2.3 years.

[Table of Contents](#)

14. RESTRUCTURING

In the fourth quarter of 2011, we implemented a restructuring plan to improve our financial performance. Related to these initiatives, we announced in December 2011 that we would transition the manufacture and distribution of RTMS products to a third party, reduce our workforce and contract certain facilities. As a result of these actions, we recorded restructuring charges within all reportable segments that were comprised of termination benefits, facility closure costs and inventory charges. Approximately \$448,000 was recorded in cost of revenue in the Consolidated Statement of Operations and the remainder of \$287,000 was recorded in operating expenses.

The following table shows the restructuring activity for 2011 (in thousands):

	Termination Benefits	Facility Costs and Contract Termination	Inventory Charges	Total
Balance at January 1, 2011	\$	\$	\$	\$
Charges	208	101	426	735
Settlements	(45)	(36)	(42)	(123)
Balance at December 31, 2011	\$ 163	\$ 65	\$ 384	\$ 612

We expect to settle the remaining liability in 2012. In addition, we expect to incur approximately \$100,000 to \$150,000 of restructuring charges in 2012 related to additional employee termination benefits and other costs.

15. SEGMENT INFORMATION

We currently operate in three reportable segments: Autoscope, RTMS and CitySync. Autoscope is our machine-vision product line, and revenue consists of royalties (all of which are received from Econolite), as well as a portion of international product sales. RTMS is our radar product line acquired in the EIS asset purchase in December 2007. CitySync is our ANPR product line acquired in the CitySync purchase in June 2010. All segment revenues are derived from external customers.

Our presentation of segments has changed from the prior year as company-wide organizational changes completed in 2011 resulted in the chief operating decision-maker focusing on segment gross profit. The segment information below has been reclassified to reflect these changes. Operating expenses and total assets are not allocated to the segments for internal reporting purposes. Due to the amended manufacturing and distribution agreement with Econolite and the related changes in how we manage our business, we may reevaluate our segment definitions in the future.

The following tables set forth selected unaudited financial information for each of our reportable segments (in thousands):

	For the year ended December 31, 2011			
	Autoscope	RTMS	CitySync	Total
Revenue	\$ 17,445	\$ 7,366	\$ 5,710	\$ 30,521
Gross profit	15,096	3,512	2,696	21,304
Goodwill impairment	525	7,392	3,768	11,685
Amortization of intangible assets		768	882	1,650
Intangible assets and goodwill		3,551	7,457	11,008

	For the year ended December 31, 2010			
	Autoscope	RTMS	CitySync	Total
Revenue	\$ 16,659	\$ 9,819	\$ 5,203	\$ 31,681

Edgar Filing: IMAGE SENSING SYSTEMS INC - Form 10-K

Gross profit	15,054	6,104	2,724	23,882
Amortization of intangible assets		768	450	1,218
Intangible assets and goodwill	525	11,710	11,991	24,226

For the year ended December 31, 2009

	Autoscope	RTMS	CitySync	Total
Revenue	\$ 16,240	\$ 8,353	\$	\$ 24,593
Gross profit	14,773	5,523		20,296
Amortization of intangible assets		768		768
Intangible assets and goodwill	525	10,813		11,338

45

Table of Contents

We derived the following percentages of our net revenues from the following geographic regions:

	2011	2010	2009
Asia Pacific	4%	11%	10%
Europe	31%	26%	15%
North America	65%	63%	75%

No countries other than the United States and the United Kingdom had revenue in excess of 10% of our total revenue during any periods presented. The aggregate net book value of long-lived assets held outside of the United States, not including goodwill and intangible assets, was \$651,000 and \$401,000 at December 31, 2011 and 2010 respectively.

16. COMMITMENTS AND CONTINGENCIES

We are involved from time to time in various legal proceedings arising in the ordinary course of our business, including primarily commercial, product liability, employment and intellectual property claims. In accordance with generally accepted accounting principles in the United States, we record a liability in our Consolidated Financial Statements with respect to any of these matters when it is both probable that a liability has been incurred and the amount of the liability can be reasonably estimated. With respect to currently pending legal proceedings, we have not established an estimated range of reasonably possible additional losses either because we believe that we have valid defenses to claims asserted against us or the proceeding has not advanced to a stage of discovery that would enable us to establish an estimate. We currently do not expect the outcome of these matters to have a material effect on our consolidated results of operations, financial position or cash flows. Litigation, however, is inherently unpredictable, and it is possible that the ultimate outcome of one or more claims asserted against us could adversely impact our results of operations, financial position or cash flows. We expense legal costs as incurred.

Table of Contents

Report of Independent Registered Public Accounting Firm

Board of Directors and Shareholders
Image Sensing Systems, Inc.

We have audited the accompanying consolidated balance sheets of Image Sensing Systems, Inc. (a Minnesota Corporation) and subsidiaries (the Company) as of December 31, 2011 and 2010, and the related consolidated statements of operations, shareholders' equity and comprehensive income (loss), and cash flows for each of the three years in the period ended December 31, 2011. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform an audit of its internal control over financial reporting. Our audit included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Image Sensing Systems, Inc. and subsidiaries as of December 31, 2011 and 2010, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2011, in conformity with accounting principles generally accepted in the United States of America.

/s/ GRANT THORNTON LLP

Minneapolis, Minnesota
March 19, 2012

Table of Contents

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

Evaluation of disclosure controls and procedures

We maintain disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (Exchange Act)), that are designed to reasonably ensure that information required to be disclosed by us in the reports we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the Securities and Exchange Commission and that such information is accumulated and communicated to our management, including our principal executive officer and principal financial officer, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure. Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we evaluated the effectiveness of the design and operation of our disclosure controls and procedures. Based upon that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that, as of the end of the period covered by this Annual Report on Form 10-K, our disclosure controls and procedures were effective.

Management's report on internal control over financial reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles in the United States of America. Our internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect our transactions and dispositions of our assets; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of the financial statements in accordance with generally accepted accounting principles in the United States of America and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the financial statements.

Internal control over financial reporting cannot provide absolute assurance of achieving financial reporting objectives because of its inherent limitations. Internal control over financial reporting is a process that involves human diligence and is subject to lapses in judgment or breakdowns resulting from human failures. Internal control over financial reporting also can be circumvented by collusion or improper management override. Because of such limitations, there is a risk that material misstatements may not be prevented or detected on a timely basis by internal control over financial reporting. However, these inherent limitations are known features of the financial reporting process. Therefore, it is possible to design into the process safeguards to reduce, although not eliminate, this risk.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect all misstatements. Further, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions or that the degree of compliance with the policies or procedures may deteriorate.

Management assessed the effectiveness of our internal control over financial reporting as of December 31, 2011. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control Integrated Framework*. Based on this assessment, management has concluded that our internal control over financial reporting was effective as of December 31, 2011.

Changes in internal control over financial reporting

During the most recent fiscal quarter covered by this Annual Report on Form 10-K, there has been no change in our internal control over financial reporting (as defined in Rule 13a-15(f) and 15d-15(f) under the Exchange Act) that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None.

Table of Contents**PART III****Item 10. Directors, Executive Officers and Corporate Governance**

We have adopted a Code of Ethics which applies to our principal executive, accounting and financial officers. The Code of Ethics is published on our website at www.imagesensing.com. Any amendments to the Code of Ethics and waivers of the Code of Ethics for our principal executive, accounting and financial officers will be published on our website.

The sections entitled Proposal I - Election of Directors, Audit Committee and Section 16(a) Beneficial Ownership Reporting Compliance in our definitive proxy statement for our 2012 annual meeting of shareholders are incorporated into this Annual Report on Form 10-K by reference.

Item 11. Executive Compensation

The sections entitled Executive Compensation and Compensation of Directors in our definitive proxy statement for the 2012 annual meeting of shareholders are incorporated into this Annual Report on Form 10-K by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters*Equity Compensation Plan Information*

The following table provides information as of December 31, 2011 about our shares of common stock subject to outstanding awards or available for future awards under our equity compensation plans and arrangements.

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in the first column) ⁽²⁾
Equity compensation plans approved by shareholders ⁽¹⁾	535,333	\$ 9.58	68,500

⁽¹⁾ Includes shares underlying stock options granted under the Image Sensing Systems, Inc. 1995 Long-Term Incentive and Stock Option Plan (1995 Plan) and non-qualified stock options granted outside the 1995 Plan between 1996 and 2000 to current and former members of the Board of Directors.

⁽²⁾ The 68,500 shares available for grant under the 2005 Stock Incentive Plan may become the subject of future awards in the form of stock options, stock appreciation rights, restricted stock, performance awards or other stock-based awards.

The section entitled Security Ownership of Certain Beneficial Owners and Management in our definitive proxy statement for the 2012 annual meeting of shareholders is incorporated into this Annual Report on Form 10-K by reference.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The section entitled Certain Relationships and Related Transactions in our definitive proxy statement for the 2012 annual meeting of shareholders is incorporated into this Annual Report on Form 10-K by reference.

Item 14. Principal Accounting Fees and Services

Edgar Filing: IMAGE SENSING SYSTEMS INC - Form 10-K

The sections entitled Audit Fees, Audit-Related Fees, Tax Fees, All Other Fees and Policy on Audit Committee Pre-Approval of Audit and Permissible Non-Audit Services Provided by Our Independent Registered Public Accounting Firm in our definitive proxy statement for our 2012 annual meeting of shareholders are incorporated into this Annual Report on Form 10-K by reference.

Table of Contents

PART IV

Item 15. Exhibits and Financial Statement Schedules

(a) Documents filed as part of this report:

1. Financial statements

The following Consolidated Financial Statements are included in Part II, Item 8. Financial Statements and Supplementary Data :

Consolidated Balance Sheets as of December 31, 2011 and 2010

Consolidated Statements of Operations for the years ended December 31, 2011, 2010 and 2009

Consolidated Statements of Cash Flow for the years ended December 31, 2011, 2010 and 2009

Consolidated Statements of Shareholders' Equity and Comprehensive Income (Loss) for the years ended December 31, 2011, 2010 and 2009

Notes to Consolidated Financial Statements

Report of Independent Registered Public Accounting Firm

2. Financial Statement Schedules:

All financial statement schedules have been omitted because they are not required.

3. The following documents are filed as exhibits to this report:

Exhibit No. Description

- | | |
|--------|--|
| 1.1 | Underwriting Agreement by and among ISS, Wedbush Securities Inc. and Craig-Hallum Capital Group Inc. dated April 15, 2010, incorporated by reference to Exhibit 1.1 to ISS' Current Report on Form 8-K dated April 15, 2010. |
| 2.1* | Asset Purchase Agreement dated December 6, 2007 by and among Image Sensing Systems, Inc. (ISS), EIS Electronic Integrated Systems Inc., Dan Manor and the other parties named therein, incorporated by reference to Exhibit 2.1 to ISS' Annual Report on Form 10-K for the year ended December 31, 2007 (2007 Form 10-K). (Schedules to this Agreement have not been filed in reliance on Item 601(b)(2) of Regulation S-K of the Securities and Exchange Commission (SEC). ISS will furnish supplementally copies of such schedules to the SEC upon its request.) |
| 2.2 | Share Purchase Agreement dated June 21, 2010 by and among ISS, Image Sensing Systems Europe Limited, CitySync Limited and three shareholders of CitySync Limited, incorporated by reference to Exhibit 2.1 to ISS' Quarterly Report on Form 10-Q for the quarter ended June 30, 2010. |
| 3(i).1 | Restated Articles of Incorporation of ISS, incorporated by reference to Exhibit 3.1 to ISS' Registration Statement on Form SB-2 (Registration No. 33-90298C) filed on March 15, 1995, as amended (Registration Statement). |
| 3(i).2 | Articles of Amendment to Articles of Incorporation of ISS, incorporated by reference to Exhibit 3.2 to ISS' Quarterly Report on Form 10-QSB for the quarter ended June 30, 2001. |
| 3(ii) | Bylaws of ISS, incorporated by reference to Exhibit 3(ii) to ISS' Quarterly Report on Form 10-Q for the quarter ended September 30, 2011. |
| 4.1 | Specimen form of ISS' common stock certificate, incorporated by reference to Exhibit 4.1 to ISS' Registration Statement. |
| 10.1 | Form of Distributor Agreement, incorporated by reference to Exhibit 10.1 to ISS' Registration Statement. |

Edgar Filing: IMAGE SENSING SYSTEMS INC - Form 10-K

Table of Contents

- 10.2** 1995 Long-Term Incentive and Stock Option Plan, amended and restated through May 17, 2001, incorporated by reference to Exhibit 10.10 to ISS Annual Report on Form 10-KSB for the year ended December 31, 2001.
- 10.3** Employment Agreement between ISS and Kenneth R. Aubrey, dated December 12, 2006, effective on or about January 15, 2007 (in capacity as President) and effective on or about June 1, 2007 (in capacity of President and Chief Executive Officer), incorporated by reference to Exhibit 10.1 to ISS Current Report on Form 8-K dated December 14, 2006.
- 10.4** Employment Agreement between ISS and Gregory R. L. Smith, dated December 8, 2006, incorporated by reference to Exhibit 10.1 to ISS Current Report on Form 8-K dated December 8, 2006.
- 10.5 Amendment VII to Office Lease Agreement dated April 26, 2007 by and between ISS and Spruce Tree Centre L.L.P., incorporated by reference to Exhibit 10.11 to ISS Annual Report on Form 10-K for the year ended December 31, 2007 (2007 Form 10-K).
- 10.6 Modification to Manufacturing, Distributing and Technology License Agreement dated September 1, 2000 by and between ISS and Econolite Control Products, Inc. (Econolite), incorporated by reference to Exhibit 10.12 to ISS 2007 Form 10-K.
- 10.7** Image Sensing Systems, Inc. 2005 Stock Incentive Plan, incorporated by reference to Appendix A to ISS proxy statement filed with the SEC on April 19, 2005.
- 10.8 Manufacturing, Distributing and Technology License Agreement dated June 11, 1991 by and between ISS and Econolite Control Products, Inc. (Econolite), incorporated by reference to Exhibit 10.1 to the Registration Statement.
- 10.09 Extension and Second Modification to License Agreement dated July 13, 2001 by and between ISS and Econolite, incorporated by reference to Exhibit 10.12 to ISS Annual Report on Form 10-KSB for the year ended December 31, 2001.
- 10.10 Office Lease Agreement dated November 24, 1998 by and between ISS and Spruce Tree Centre L.L.P., incorporated by reference to Exhibit 10.18 to ISS Annual Report on Form 10-KSB for the year ended December 31, 1998.
- 10.11 Production Agreement dated February 14, 2002 by and among ISS, Wireless Technology, Inc. and Econolite, incorporated by reference to Exhibit 10.20 to ISS Annual Report on Form 10-KSB for the year ended December 31, 2001.
- 10.12 Extension and Third Modification to Manufacturing Distributing and Technology License Agreement dated July 3, 2008 by and between ISS and Econolite, incorporated by reference to Exhibit 10.1 to ISS Current Report on Form 8-K dated July 3, 2008.
- 10.13 Fourth Modification to Manufacturing, Distributing and Technology License Agreement dated as of December 15, 2011 by and between ISS and Econolite, incorporated by reference to Exhibit 10.1 to ISS Current Report on Form 8-K dated December 15, 2011.
- 10.14 Loan Agreement dated May 1, 2008 (2008 Loan Agreement) by and between ISS and Associated Bank, National Association (Associated Bank), incorporated by reference to Exhibit 10.19 to ISS Registration Statement on Form S-1 filed on May 12, 2008 (Form S-1).
- 10.15 Security Agreement dated May 1, 2008 by and between ISS and Associated Bank, incorporated by reference to Exhibit 10.20 to ISS Form S-1.
- 10.16 Promissory Note (Line of Credit) dated May 1, 2008 in the original principal amount of \$5,000,000 issued by ISS to Associated Bank, incorporated by reference to Exhibit 10.21 to ISS Form S-1.
- 10.17 Promissory Note (Loan) dated May 1, 2008 in the original principal amount of \$3,000,000 issued by ISS to Associated Bank, incorporated by reference to Exhibit 10.22 to ISS Form S-1.

Edgar Filing: IMAGE SENSING SYSTEMS INC - Form 10-K

Table of Contents

- 10.18 Modification Agreement dated December 28, 2009 by and between ISS and Associated Bank under which ISS and Associated Bank amended the 2008 Loan Agreement, incorporated by reference to Exhibit 10.18 to ISS Annual Report on Form 10-K for the year ended December 31, 2009 (2009 Form 10-K).
- 10.19 Promissory Note (Loan) dated December 28, 2009 in the original principal amount of \$4,000,000 issued by ISS to Associated Bank, incorporated by reference to Exhibit 10.19 to the 2009 Form 10-K.
- 10.20 Lease dated February 1, 2010 between CitySync Limited and Nortrust Nominees Limited, incorporated by reference to Exhibit 10.1 to ISS Quarterly Report on Form 10-Q for the quarter ended June 30, 2010.
- 10.21 Third Modification Agreement dated December 28, 2010 by and between ISS and Associated Bank under which ISS and Associated Bank amended the 2008 Loan Agreement, incorporated by reference to Exhibit 10.21 to ISS Annual Report on Form 10-K for the year ended December 31, 2010.
- 10.22 Fourth Modification Agreement dated December 22, 2011 by and between ISS and Associated Bank under which ISS and Associated Bank amended the 2008 Loan Agreement, incorporated by reference to Exhibit 10.1 to ISS Current Report on Form 8-K dated December 22, 2011.
- 21 List of Subsidiaries of ISS (filed herewith).
- 23.1 Consent of Independent Registered Public Accounting Firm (filed herewith).
- 24 Power of Attorney (included on signature page).
- 31.1 Certification of Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith).
- 31.2 Certification of Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith).
- 32.1 Certification of Chief Executive Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (filed herewith).
- 32.2 Certification of Chief Financial Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (filed herewith).
- 99.1 Extension of Modification to Manufacturing, Distributing and Technology License Agreement dated May 31, 2002 by and between ISS and Econolite, incorporated by reference to Exhibit 99.2 to ISS 2007 Form 10-K.
- 99.2 Letter agreement dated June 19, 1997 by and between ISS and Econolite, incorporated by reference to Exhibit 99.3 to ISS 2007 Form 10-K.
- 99.3 License and Distribution Agreement dated January 2, 2011 by and among ISS, Econolite and Econolite Canada Inc. (filed herewith).

* Portions of this exhibit are treated as confidential pursuant to a request for confidential treatment filed by ISS with the SEC.

** Management contract or compensatory plan or arrangement.

Copies of all exhibits not attached will be furnished without charge upon written request to the Company at the address set forth on the inside back cover page of this Annual Report on Form 10-K.

Edgar Filing: IMAGE SENSING SYSTEMS INC - Form 10-K

Table of Contents

Signatures

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

Image Sensing Systems, Inc.

/s/ Kenneth R. Aubrey

Date: March 19, 2012

Kenneth R. Aubrey
President and Chief Executive Officer
(Principal Executive Officer)

Each person whose signature to this Annual Report on Form 10-K appears below hereby constitutes and appoints Kenneth R. Aubrey and Gregory R. L. Smith, and each of them, as his or her true and lawful attorney-in-fact and agent, with full power of substitution, to sign on his or her behalf individually and in the capacity stated below and to perform any acts necessary to be done in order to file all amendments to this Annual Report on Form 10-K, and any and all instruments or documents filed as part of or in connection with this Annual Report on Form 10-K or any amendments hereto, and each of the undersigned does hereby ratify and confirm all that said attorney-in-fact and agent, or his substitutes, shall do or cause to be done by virtue hereof.

In accordance with the Exchange Act, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated:

/s/ Kenneth R. Aubrey

Date: March 19, 2012

Kenneth R. Aubrey
President and Chief Executive Officer
(Principal Executive Officer)

/s/ Gregory R. L. Smith

Date: March 19, 2012

Gregory R. L. Smith
Chief Financial Officer
(Principal Financial and Principal Accounting Officer)

/s/ James W. Bracke

Date: March 19, 2012

James W. Bracke
Chairman of the Board of Directors

/s/ Michael C. Doyle

Date: March 19, 2012

Michael C. Doyle
Director

/s/ Michael G. Eleftheriou

Date: March 19, 2012

Michael G. Eleftheriou
Director

/s/ Panos G. Michalopoulos

Date: March 19, 2012

Panos G. Michalopoulos
Director

Edgar Filing: IMAGE SENSING SYSTEMS INC - Form 10-K

/s/ James Murdakes

Date: March 19, 2012

James Murdakes
Director

/s/ Kris Tufto

Date: March 19, 2012

Kris Tufto
Director

/s/ Sven A. Wehrwein

Date: March 19, 2012

Sven A. Wehrwein
Director