

# **Spectra Systems Corporation**Annual report and accounts 2011

# A leading provider of advanced technology-based security solutions



# Who we are

Spectra Systems Corporation is a leading provider of advanced security and authentication solutions for the banknote and gaming industries.

# What we do

We develop, manufacture and market integrated materials, systems and software solutions. Our products include proprietary engineered consumable materials and the sensors to authenticate them at high speed. Our software solutions provide secure, real-time audits for the gaming industry worldwide.

# Who we work with

We have penetrated the banknote and gaming markets through strategic licensing and partnering arrangements with the world's major suppliers of banknotes and lottery management companies, respectively.

# **Our solutions**

Our complete solutions include engineered materials, reliable high speed sensors, and quality control equipment. We manufacture our products under secure conditions and build our own equipment to meet our customers' needs. Our Internal Control Systems platforms for gaming utilize state-of-art, highly scalable and high availability software, and are used to ensure the security and fidelity of lotteries worldwide.



For more information www.spsy.com

# Financial highlights (all figures in 000s)

- Revenue exceeded expectations at US\$7,416 (2010: US\$7,278)
- Adjusted profit (before stock compensation expense) before taxation of US\$271 (2010: US\$584)
- Adjusted earnings per share (before stock compensation expense) of US\$0.01 (2010: US\$0.02)
- Basic earnings/(loss) per share of US\$(0.00) (2010: US\$0.01)
- Strong ungeared balance sheet, with net cash and investments of US\$23,767 (2010: US\$3,370) at December 31
- US\$20,514 (net) raised on admission to AIM on July 25, 2011

# **Operational highlights**

- Received and delivered orders for a significantly increased volume of covert consumable materials in 2011
- Revenues from our phosphor business for 2011 were ahead of plan and significantly outperforming 2010
- Technology evaluation process continues positively in Reserve Bank of India tender. Final specification and selection of vendors, however, is stalled due to well publicised issues with all paper suppliers to the Reserve Bank of India ("RBI")

# Inside this report

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An introduction to the direction of the Company, its strategy, market and solutions.

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# **Business review**

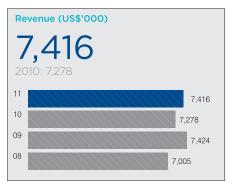
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# Our Company at a glance

We have penetrated the currency and documentation markets through a series of strategic supply and licensing agreements with governmental, institutional and corporate partners.

# Some of our customers include:

- G8 central banks
- Commercial security printers and papermakers
- Manufacturers of US currency and passport paper
- Suppliers of security threads for world currencies
- National lotteries in nine countries
- Intralot SA
- Scientific Games International

# **Our strategy**

Following admission, the Company is pursuing a growth policy based upon both organic development and strategic acquisition.

Key drivers for success include continued adoption of our current systems, adoption of our next generation technology by G8 and Asian central banks, and the opportunities provided by internet gaming in the United States.

We continue to move forward with a clear strategy to focus on long-term markets which are supported by governmental needs worldwide. Expand
customer base
with current
and next
generation
products

Seek
acquisitions
in the broad
area of secure
transactions

Expand in-house manufacturing capabilities

Focus R&D on customer requirements



Find out more pages 04-07

# Our solutions

Our machine-readable solutions include proprietary engineered consumable materials and the authentication software and hardware systems necessary to authenticate them at high speeds.

Our Internal Control Systems (ICS) provide secure, real-time audits for gaming, banking, and securities industries.



# Banknote authentication and processing



We have sophisticated capabilities that allow us to invent, develop and manufacture integrated solutions comprised of a system of taggant materials and sensor equipment to authenticate banknotes at high processing speeds.

# Our solutions are used by:

- two G8 central banks:
- numerous other central banks for currency security; and
- a major G8 country for passport security.



Our licensing relationship with one of the world's largest security printers continues to drive the acceptance of our already adopted products by new central banks. Next generation products have been developed with customized signatures for direct sale to the largest central banks.

#### **Progress**

 The Company has delivered key milestones on time in the development of next generation sensors for a G8 central bank. Contract execution for a materials component of the new technology continues to be delayed in spite of the completion of the definitive work scope document with the central bank.

# We are expanding our acquisition scope to companies providing technology for secure transactions, a segment of which is banknotes. We are particularly focused on providing security in areas which drive government revenues as we believe they will continue to grow. These include tax stamps and the gaming industry and both physical materials as well as software based products.

# **Progress**

- The Company announced on June 6, 2012 that it has acquired all of the assets of ESI Integrity, Inc.
- The Company is in definitive discussions with other security suppliers to the gaming industry.

# The Company is completing a facility to manufacture secure consumable materials in-house, rather than on a sub-contracted basis, which, the Directors believe, will enable the Company to reduce its costs as more central banks utilize our products.

#### **Progress**

- New facility building has been leased and equipment is arriving.
- Key staff have been hired.
- Current G8 customer has been supportive and may absorb some of the costs.

Our research and development effort continues to be responsive to our customers' requirements for new capabilities and application venues. We are focusing our efforts on compatibility with polymer banknotes, new sensors and materials for use with bill acceptors and in non-banknote authentication applications which have come to us from customers.

#### **Progress**

- Executed second phase of a development contract with a supplier of polymer substrates to qualify our machine-readable technology for polymer banknotes.
- Completed highly successful large scale test of our material-sensor combinations with one of the largest suppliers of heat sealable plastic films and machines.

# **Our market**

Spectra Systems' security solutions address the increasing need and demand for technology that ensures transactions are secure, from banknotes to the electronic banking and gaming industries.

We estimate that the size of the banknote authentication market currently amounts to approximately \$600 million per annum worldwide and project that it will reach \$1 billion by 2015. Our high-speed, machine-readable banknote authentication technology is utilized by many central banks to prevent sophisticated counterfeiting of their currency.

Spectra has recently expanded its authentication of secure transactions beyond physical banknotes with its secure internal control systems ("ICS") software platforms and is an established security provider for the worldwide gaming industry. Our ICS systems provide methods for fraud detection, money laundering, match fixing and statistical analysis and have many existing parallel applications used by the securities exchange industry.

Spectra's expanded suite of physical and software based solutions can be used for authenticating, processing and tracking pharmaceutical products, branded luxury goods and tax bearing products.

# Product authentication and tracking



Our security products are designed for use in both primary and secondary packaging materials, including paper, cardboard, inks, coatings, films, plastics and glass.

#### In addition, we have fully developed a number of products for future commercialisation including:

- 2D barcode in glass for brand protection and tracking;
- UV security materials for direct product encoding;
- machine readable coatings for pharmaceuticals; and
- digital watermarking for fabrics.

# Optical materials and sources

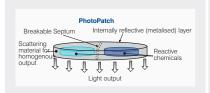


With a team of world class scientists and engineers focusing on the physical and photonic properties of optical materials and light sources, Spectra Systems has created a portfolio of security, tracking, authentication and quality assurance products.

# Our materials have been engineered to provide:

- high security;
- physical compatibility with a number of substrates and manufacturing processes; and
- reliable permanence.

# Licensing and joint development



Spectra's core capabilities in optical materials has led to a diverse set of materials and hardware-based technologies for a number of applications and markets.

# These include:

- sources for photo-medicine and low light therapy;
- marking the play-side of optical discs (MediaCoat);
- stabilization of food dyes for beverages;
- enhanced vision technology for robotics; and
- micro-optical elements, arrays and diffractive optics rapidly fabricated by laser heating of absorbing glasses

# Chief Executive's review

# The Board believes that the Company continues to have excellent long-term prospects

# Chief Executive's review in brief

- Revenue exceeded expectations for the year with US\$7,416 (2010: US\$7,278)
- Cash and investments at the period end amounted to US\$23,767 (2010: US\$3,370)
- The adjusted profit before and after taxation for the year amounted to US\$271 (2010: US\$584)

"Revenue exceeded expectations for the year with US\$7,416 (2010: US\$7,278)."

The Company has exceeded its revenue and cash flow from operations projections for 2011. Our earnings are also in line with expectations when first time annual stock exchange expenses for legal, NOMAD and accounting are factored in. The revenue was driven by higher than expected demand for our covert consumables, the recovery of the phosphor business to its expected levels, and the on-time delivery of key development milestones relating to the downstream delivery of upgraded sensors to an existing central bank customer.

The Company has maintained its entire key staff and has effectively utilized the versatility of its employees along with consultants to develop the plans for the new manufacturing facility expected to be online in 2012. Our employees are the underpinning asset responsible for the success of the Company. Most of our employees have been with us for at least a decade, contributing in as many ways as possible to the growth of our business and supporting our customers at the highest levels of service.

# Financial overview (000s)

Revenue exceeded expectations for the year with US\$7,416 (2010: US\$7,278). Orders placed in the second half of the year were above expectations. The adjusted profit before and after taxation for the year amounted to US\$271 (2010: US\$584) before stock compensation expense and recurring listed stock exchange company expenditures.

Cash and investments at the period end amounted to US\$23,767 (2010: US\$3,370). The Company has no long-term debt and is poised to execute on its acquisition and manufacturing plans with its cash reserves.

# Strategy

The use of public security products as vehicles for the sale of our current and future machine-readable products into new central banks continues to be an important part of the Company's strategy. This approach is currently being implemented through strategic partnerships with companies that are already selling products to the European Central Bank and Asian central banks. This strategy is further supported by partnering efforts and contracts that will ensure that our key technologies, current and new, will have full compatibility with polymer banknotes. In this way, we will be able to both maintain our existing users as well as be competitive in tenders where central banks have chosen polymer substrates for their banknotes.

We are planning on developing products for the banknote processing industry and on expanding our in-house manufacturing capabilities to increase our gross margins on consumables.

# Chief Executive's review

continued

# "We continue to be on schedule with the delivery of engineering development and prototype milestones for the upgraded and new generation sensors."

# Strategy continued

Management continues to commit considerable time to pursuing acquisition targets within the physical security industry as well as in related areas of security. Specifically, we are targeting companies that provide security to banknotes, tax stamps and other government documents as well as suppliers of software systems to the gaming industry. Both the tax stamp and gaming areas play a key role in harvesting revenues for municipalities and governments and hence we believe that they will exhibit sustainable growth. We are primarily evaluating companies in the US and the UK that can be seamlessly integrated with our operations, and which are profitable. Management is currently in the process of negotiations with several companies that squarely fit into our strategic plans and anticipates closing a second acquisition before the end of the third quarter of 2012.

# **Prospects**

We continue to be on schedule with the delivery of engineering development and prototype milestones for the upgraded and new generation sensors. Execution of the materials contract component of the new technology continues to be delayed in spite of the completion of the definitive work scope document with the central bank. Our current estimate is that this development contract will begin in the third quarter of this year. However, with regards to the sensor contract, the combination of an unspecified customer prototype evaluation phase, which is out of our control, and our inability to accelerate the development phase schedule is likely to shift the contracted delivery schedule by six to nine months. Although delays are not at all desirable, the program is contracted and intact and we expect it to be fully implemented.

All of the equipment ordering as well as key staffing for the new in-house manufacturing of consumables is underway and the facility is on schedule to be operational during the fourth quarter of 2012. This facility is expected to produce cost savings on our materials manufacturing and expected to increase net income from the sale of our consumables.

We have executed the second phase of a contract with a supplier of polymer substrates to qualify our machine-readable technology for polymer banknotes. This is a significant large volume note test that will allow our products to be selected by any central bank choosing to use these longer lasting substrates which are expected to be incorporated increasingly in higher denominations where our technologies are typically implemented.

We have recently received an unexpectedly large order from a current G8 central bank customer as part of an inventory build-up plan it has in place. The order is 70% higher than the standing order and supports the importance of our products and the long view that our customers have towards their continued use.

Our submission for a covert security feature, in partnership with an existing supplier to the Reserve Bank of India ("RBI"), is continuing to progress at a slow pace.

In parallel with the developments in the banknote authentication area, we have had a highly successful large scale test of our material-sensor combinations with one of the largest suppliers of heat sealable plastic films and machines. We expect to have higher level negotiations during the second quarter to explore possible business structures to supply both materials as well as sensors.

Finally, we expect to close on a second acquisition before the end of the third quarter of 2012 which supports the strategic directions of the Company and expands our product for secure transactions of all types.

The Board therefore believes that the Company continues to have excellent long-term prospects and has the potential to perform strongly in 2012.

Nabil M. Lawandy Chief Executive Officer April 18, 2012

# Post year-end acquisition

On June 6, 2012, Spectra acquired all of the assets of ESI Integrity, Inc., including its proprietary source codes, multi-year contracts and long-standing customer relationships.

Headquartered in Vancouver, Canada, ESI is a leader in the gaming software industry and has a 22% worldwide market share of the secure internal control systems ("ICS") segment primarily with international lotteries, including Norway, Greece, South Africa, Russia and Korea.

ICS is a secure, high-speed data platform which plays a critical independent security role in auditing online and many other gaming systems. ICS provides tools for fraud detection, money laundering, match fixing and statistical analysis and has many existing parallel applications used by the securities exchange industry. The ESI business ICS contracts are multi-year and its independent services are used to verify the accuracy of transactions logged by providers of lottery services worldwide.



The expansion of Spectra's secure transactions beyond physical banknotes to secure software products for gaming will allow us to utilize our blue-chip credentials with central banks to gain market share for the ICS and other security software development throughout the gaming industry.

# **Board of Directors and senior management**

Board of Directors

Senior management

# **BJ Penn**

# Non-executive Chairman

Mr. Penn was Acting Secretary of the US Navy from March to May 2009, having previously been Assistant secretary of the Navy (Installations and Environment) from March 2005. He was also director, Industrial Base Assessments from October 2001 to March 2005, with responsibility for the overall health of the US defence industrial base. He commenced his career as a Naval Aviator, having received his BS from Purdue University, West Lafayette and his MS from the George Washington University, DC. Mr. Penn has been a member of the Board since June 2010 and became Chairman of the Board on 7 June 2011.

# **Dr. Nabil M. Lawandy**President and Chief Executive Officer

Dr. Lawandy is the founder, President, and Chief Executive Officer of the Company. From 1981 to 1999, Dr. Lawandy was a tenured full professor of Engineering and Physics at Brown University in Providence, Rhode Island. He holds a B.A. in physics, and an MSc and PhD in chemistry, each from The Johns Hopkins University. He has authored over 170 reviewed scientific papers and is an inventor on 52 US and 27 foreign issued patents. He has also received a Presidential Young Investigator award, an Alfred P. Sloan Fellowship, a Rolex Award for Enterprise and a Samuel Slater Award for Innovation.

# **Roland Puton**

# Non-executive Director

Mr. Puton has been a member of the Company's Board of Directors since 1997. He served as the president and Chief Executive Officer of Rolex Watch USA Inc from 1984 until his retirement in 2000. He holds a degree in business administration from the Swiss Business School. Mr. Puton is a member of the Board of Directors of the American Watch Association and the Fifth Avenue Association. He is a member of the Canadian twenty-four Karat Club and is an Honorary Director of the Explorers Club. Also, Mr. Puton is a member of the American Alpine Club, a Board Member of the American Swiss Foundation, and a member of the Advisory Council of the Swiss Society of New York.

# Martin Jaskel Non-executive Director

Mr. Jaskel, a British citizen, is a director of European American Capital Limited, a specialist investment bank advising clients on a global basis on debt and equity capital issues, foreign exchange and trade finance issues. Prior to joining the bank Mr. Jaskel founded MSJ Associates Limited, a consultancy in capital markets and held a consultancy position with KPMG Corporate Finance. His background was as a partner in W. Greenwell & Co., UK Stockbrokers, director of Global Marketing, NatWest Treasury and managing director, Global Trade and Banking Services, NatWest Markets. He has extensive experience as a non-executive director of both private and listed companies. Mr. Jaskel has been a member of the Board since 2007.

# Jeffrey Donohue Non-executive Director

Jeffrey Donohue is Corporate Counsel for Novartis Institutes for BioMedical Research, Inc. ("NIBRI"), the research arm of the global healthcare products company Novartis. Mr. Donohue has provided legal guidance on NIBRI's strategic acquisitions, licensing agreements, academic and government-backed consortia, and drug discovery collaborations. Mr. Donohue also is an Adjunct Professor at Boston University School of Law, where he teaches advanced courses on licensing and intellectual property transactions. Before joining NIBRI, Mr. Donohue served as Corporate Counsel at Vertex Pharmaceuticals Incorporated. a pharmaceutical company based in Cambridge, Massachusetts. Mr. Donohue started his legal career at Kirkpatrick & Lockhart LLP (now KLGates), where he spent seven years advising clients on corporate governance, mergers and acquisitions, and securities matters. Mr. Donohue obtained his J.D. from Boston University and a B.A. from Brandeis University. Jeffrey joined the Board of Directors on 13 February 2012.

# **Douglas A. Anderson**Chief Financial Officer, Company Secretary and Treasurer

Mr. Anderson joined the Company as Chief Financial Officer in December 2006 and was appointed Company Secretary in June 2011. Prior to joining the Company, Mr. Anderson was employed by Bluestreak Inc., a global marketing technology company, where he served as president. Mr. Anderson also held several financial positions including director and secretary of Bluestreak's wholly owned UK subsidiary, Bluestreak International Limited. Prior to Bluestreak, he was responsible for financial and account operations at Log On America, a publicly traded telecommunication company. He also spent three years at Ernst & Young advising clients on financial strategy, accounting and compliance needs. Mr. Anderson holds an MBA from Boston University and a BA from the University of Rhode Island.

# **Donald Stanford**Non-executive Director

Mr. Stanford, who was until 2001 the Chief Technical Officer of GTECH Corporation, is an Adjunct Professor of Computer Science and Engineering at Brown University. He holds a BA in International Relations and an MS in Computer Science and Applied Mathematics, both from Brown University. Over 30 years, he has held every technical leadership position, including Vice President of Advanced Development and Chief Technology Officer. Mr. Stanford serves on several boards including Times Squared Academy Charter School, Spectra Systems and the Business Innovation Factory. Mr. Stanford is a member of the R.I. Science and Technology Advisory Council. He is also an Adjunct in the School of Engineering and is an instructor in the Program in Innovation, Management and Entrepreneurship (PRIME). He serves on the Brown advisory councils to the President and the School of Engineering. In 1999 Don received the Black Engineer of the Year Award for Professional Achievement. In 1999 he also received the Honorable Thurgood Marshall award for community service from the NAACP. In 2002 he received the Brown Graduate School's Distinguished Graduate award and the R.I. Professional Engineer's award for Community Service.

# **William Goltsos** Vice President, Engineering

Dr. Goltsos was appointed Vice President, Engineering, in April 2000. From September 1996 to April 2000, he served as Senior Systems Engineer. Prior to that, from 1992 to 1996, he served as a staff member of the MIT/Lincoln Laboratory's Optical Communications Group. Dr. Goltsos holds a BSc in physics from Rensselaer Polytechnic Institute and an MSc and PhD in physics from Brown University.

# Marc Curcio Non-executive Director

Mr. Curcio, a US citizen, received his MBA from Carnegie Mellon University and went on to become one of the founding partners of Bain and Company's Los Angeles office as well as Bain's private equity practice. From 1997 through 2000, he was the chief executive officer of Artisan Entertainment and currently he is a partner of Curcio Capital Advisors, working on assignments for companies such as TPG, Goldengate Capital and Sheridan Square Entertainment. Mr. Curcio has been a member of the Board since 2008. Marc resigned form the Board of Directors on 9 February 2012.

# James Cherry Director of Authentication Systems

Mr. Cherry serves as Director of Authentication Systems. He joined the Company in 2002 from Auspex Systems, an enterprise network data storage system business, where he had been involved in marketing and product management for seven years. Prior to that, he had worked for five years at DuPont in product management.

# **Dr. Oussama Salam**Non-executive Director

Dr. Salam is the Chairman of the Hala Salaam Maksoud Foundation. He received a B.Sc. in Civil Engineering from Loughborough University of Technology in 1968, a MS in Traffic and Transportation Engineering from the Department of Civil Engineering, Ohio State University in 1969, and a Ph.D. in the Finite Elements Method from the Department of Civil Engineering, Ohio State University in 1974. He served as Director General of the construction department of International Center for Commerce & Contracting, a leading construction company in Saudi Arabia from September 1978 until December 2000. In 1990 he co-founded Pillar BV; a venture capital business-consulting firm based in Paris, and remained a partner until September of 1999. He also co-founded WorldCare Limited, a leading company in the emerging field of global eHealth, and served on its Board of Directors from 1993 until June 1998. Dr. Salam is currently a board member of Spectra Systems Corporation, a company that specializes in optical solutions for document and currency authentication and tracking; marking and tracking in challenging applications such as optical media and postal documents. Dr. Salam is involved in the business development of these companies in Europe and the Middle East. Currently he lives in Beirut, Lebanon

# **Dr. Andrei Smuk**Director of Research and Development

Dr. Smuk, who joined the Company in 2000, was appointed Director of Research and Development in 2006. He is responsible for the development of advanced materials and innovative sensor systems. He received a PhD in physics from Brown University in 2000 and an MS in applied physics from the Moscow Institute of Physics and Technology in 1994.

Spectra Systems Corporation

# Directors' report

For the year ended December 31, 2011

The Directors present their report and the audited financial statements for the year ended 31 December 2011.

#### **Domicile**

Spectra Systems Corporation is a C corporation and is registered and domiciled in the United States.

# Principal activity

The principal activity of the Company is to invent, develop, manufacture and market integrated materials and systems solutions to authenticate and process banknote and other high value documents.

# **Results and dividends**

The Company's statements of income is set out on page 16 and shows the result for the year.

The Directors do not recommend the payment of a dividend (2010: \$nil).

# Review of business and future developments

A review of the operations of the Company is contained in the Company at a glance review on pages 2 to 3.

# Principal risks and uncertainties and financial risk management

# Complex products

Certain of the products produced by the Company are highly complex and are designed to be used in complex systems. Failure to correct errors or other problems identified after deployment could result in events that may have a negative effect on the Company's business and financial conditions.

# The Company's markets may become impacted by technological change

Markets for the Company's products may become characterized by rapidly changing technology, evolving industry standards and increasingly sophisticated customer requirements. The introduction of products embodying new technology and the emergence of new industry standards could render the Company's existing products obsolete and unmarketable and may exert price pressures on exiting products. If the Company could not then develop products that remain competitive in terms of technology and price and that meet customer needs, this could have a negative impact on the business.

# Expiry of patents

All patents have a limited duration of enforceability. US patents generally have a duration of 20 years from the filing date. Once a patent expires, the invention disclosed in the patent may be freely used by the public without accounting to the patent owner, as long as there are no other unexpired patents that embrace an aspect of the invention. There is no certainty that any improvement, new use, or new formulation will be patented to extend the protection of the underlying invention, or provide additional coverage to adequately protect the invention. As a result, the public may have the right to freely use the invention described in and previously protected by an expired patent.

# Dependence on key personnel

The success of the Company's revenues are dependent on a limited number of employees and in particular the Chief Executive Officer and other managers with technological and development input. The Company has endeavored to ensure its key employees are incentivized but cannot guarantee the retention of these staff. It also has the benefit of keyman insurance.

# Forward-looking statements

All statements other than of historical fact contained in this document constitute "forward looking statements". In some cases, forward-looking statements can be identified by terms such as "may", "intend", "might", "will", "should", "could", "would", "believe" or the negative of these terms and similar expressions. Such forward-looking statements are based on assumptions and estimates and involve risks, uncertainties and other factors which may cause the actual results, financial condition, performance or achievements of the Company, or industry results to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. New factors may emerge from time to time that could cause the Company's business not to develop as it expects and it is not possible for the Company to predicts all such factors. Given these uncertainties, investors are cautioned not to place any undue reliance on such forward-looking statements. Except as required by law, the Company disclaims any obligation to update any such forward-looking statements in this document to reflect future events or developments.

# **Key performance indicators**

- Revenue US\$7,416 (2010: US\$7,278)
- Adjusted profit (before stock compensation expense) before taxation of US\$271 (2010: US\$584)
- Adjusted earnings per share (before stock compensation expense) of US\$0.01 (2010: US\$0.02)
- Basic earnings/(loss) per share of US\$(0.00) (2010: US\$0.01)

# Post-reporting date events

On June 6, 2012, Spectra acquired all of the assets of ESI Integrity, Inc., including its proprietary source codes, multi-year contracts and long-standing customer relationships.

# **Financial instruments**

Details of the use of financial instruments by the Company are contained in note B of the financial statements.

# **Directors' responsibilities**

The Directors are responsible for preparing the Directors' report and the financial statements on the basis of preparation set out in note B of the financial statements and in accordance with United States Generally Accepted Accounting Principles (US GAAP).

In preparing these financial statements, the Directors are required to:

- select suitable accounting policies and then apply them consistently;
- make judgments and accounting estimates that are reasonable and prudent; and
- state whether they have been prepared in accordance with US GAAP, subject to any material departures disclosed and explained in the financial statements.

The Directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Company's transactions and disclose with reasonable accuracy at any time the financial position of the Company and enable them to ensure that the financial statements comply with all legal requirements. They are also responsible for safeguarding the assets of the Company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

# **Directors' interests**

The Directors' beneficial interests in the common stock of the Company were as follows:

	Decei	liber 3 i		
Ordinary shares	2011	2010		
O. Salam	3,555,886	3,555,886		
N. Lawandy	1,758,540	1,758,540		
R. Puton	314,514	314,514		
M. Jaskel	9,960	_		

# **Substantial shareholdings**

The following shareholders held 3% or more of the issued common stock of the Company at December 31, 2011:

	Ordinary shares	% of issued
Blackrock	4,714,485	10.42
O. Salam	3,555,886	7.86
Investec	3,430,000	7.58
Albany International	3,160,526	6.98
Artemis	3,104,453	6.86
Standard Life	2,656,047	5.87
Maunby	1,826,032	4.04
Clearwater Capital Group	1,813,850	4.01
N. Lawandy	1,758,540	3.89

# Directors' report

For the year ended December 31, 2011 continued

# Directors' compensation

The following table details Directors' earned compensation for the year ended December 31, 2011:

	Salary and bonus	Benefits	Board fees	Total compensation
Executive Directors				
N. Lawandy	\$ 439,542 \$	13,743 \$		\$ 453,285
Non-executive Directors				
B. Penn	_	_	12,000	12,000
O. Salam	_	_	12,000	12,000
M. Jaskel	_	_	12,000	12,000
R. Puton	_	_	12,000	12,000
D. Stanford	_	_	12,000	12,000
M. Curcio	_	_	12,000	12,000
Total	\$ 439,542 \$	13,743 \$	72,000	\$ 525,285

# Directors' share options

At December 31, 2011, Directors had options or warrants to purchase ordinary shares under the Company's stock option plan as follows:

	Options held at December 31, 2011	Weighted average exercise price	Options vested at December 31, 2011
N. Lawandy	2,686,729	\$ 0.65	2,532,269
B. Penn	120,000	0.60	40,000
O. Salam	416,000	0.75	370,167
M. Jaskel	120,000	0.60	74,167
R. Puton	148,000	1.12	100,458
D. Stanford	120,000	0.60	74,167
M. Curcio	129,500	0.57	74,167
Total	3,740,229	\$ 0.67	3,265,395

# Corporate governance

The Board comprises one executive Director, Nabil M. Lawandy, and six independent Non-executive Directors, BJ Penn, as Chairman, Jeffrey Donohue, Martin Jaskel, Roland Puton, Oussama Salam and Donald Stanford. The Board usually meets at least every three months to closely monitor the progress of the Company towards the achievement of budgets, targets and strategic objectives.

The Board also operates three committees: the Audit Committee; the Compensation Committee; and the Government Security Committee.

The Audit Committee comprises Roland Puton, as Chairman, and Martin Jaskel. It has primary responsibility for monitoring the quality of internal controls and ensuring that the financial performance of the Company is properly measured and reported on. It will receive and review reports from the Company's management and auditors relating to the interim and annual accounts and the accounting and internal control systems in use throughout the Company. The Audit Committee intends to meet no less than three times each financial year and will have unrestricted access to the Company's auditors.

The Compensation Committee comprises Roland Puton, as Chairman, Martin Jaskel, Oussama Salam and Donald Stanford. It reviews the performance of the executive Director and makes recommendations to the Board on matters relating to his remuneration and terms of employment. The committee also makes recommendations to the Board on proposals for the granting of shares options and other equity incentives pursuant to any share options scheme or equity incentive scheme in operation from time to time.

The Government Security Committee comprises BJ Penn, as Chairman, and Nabil M. Lawandy. It is responsible for ensuring the implementation within the Company of all procedures, organizational matters and other aspects pertaining to the security and safeguarding of information, including the exercise of appropriate oversight and monitoring of operations to ensure that protective measures are effectively maintained and implemented.

The Board intends to comply with Rule 21 of the AIM Rules relating to Directors' dealings and will also take all reasonable steps to ensure compliance by the Company's applicable employees and the Company has adopted a share dealing code for this purpose on substantially the same terms as the Model Code.

# Website publication

The Directors are responsible for ensuring the annual report and the financial statements are made available on a website. Financial statements are published on the Company's website in accordance with legislation in the United Kingdom governing the preparation and dissemination of financial statements, which may vary from legislation in other jurisdictions. The maintenance and integrity of the Company's website is the responsibility of the Directors. The Directors' responsibility also extends to the ongoing integrity of the financial statements contained therein.

# Auditors

All of the current Directors have made themselves aware of any information needed by the Company's auditors for the purposes of their audit and to establish that the auditors are aware of that information. The Directors are not aware of any relevant information of which the auditors are unaware.

Miller Wachman LLP have expressed their willingness to continue as the Company's auditors and a resolution to re-appoint Miller Wachman LLP will be proposed at the Annual General Meeting.

By order of the Board

Douglas Anderson Company Secretary June 14, 2012

# Independent auditors' report

To the Board of Directors and Stockholders of Spectra Systems Corporation Providence, Rhode Island

We have audited the accompanying balance sheets of Spectra Systems Corporation as of December 31, 2011 and 2010 and the related statements of income, stockholders' equity, convertible preferred stock and cash flows for the years then ended. 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 auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Spectra Systems Corporation as of December 31, 2011 and 2010 and the results of its operating and its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.

Miller Wachman LLP

Certified Public Accountants

illa Washman LLP

Boston, Massachusetts April 17, 2012

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# **Balance sheets**

As at December 31, 2011 and 2010

	2011	2010
Current assets		
Cash and cash equivalents	\$ 17,861,355	\$ 3,369,993
Investments	5,905,580	_
Accounts receivable	476,776	157,644
Other receivables	109,246	_
Due from Solaris	81,112	74,484
Deferred contract costs	64,280	_
Inventory	812,452	839,369
Prepaid expenses	79,896	48,142
Refundable income taxes	_	5,000
Deferred tax assets	344,000	344,000
Total current assets	25,734,697	4,838,632
Property, plant and equipment – net	241,251	298,113
Other assets		
Intangible assets, net	174,051	137,500
Restricted cash	1,050,000	1,000,000
Deferred tax assets	902,000	902,000
Other assets	17,256	17,445
Total other assets	2,143,307	2,056,945
Total assets	\$ 28,119,255	\$ 7,193,690
Liabilities and stockholders' equity		
Current liabilities		
Accounts payable	\$ 1,145,058	\$ 400,840
Accrued expenses and other liabilities	658,046	649,872
Deferred revenue	1,780,228	1,470,940
Total current liabilities	3,583,332	2,521,652
Contingent liability	_	_
Stockholders' equity		
Convertible preferred stock, \$0.01 par value, 17,882,179 shares authorized; 12,225,564 issued and outstanding in 2010		122,256
Additional paid in capital – convertible preferred stock	_	26,040,570
Common stock, \$0.01 par value, 125,000,000 shares authorized 45,251,370		20,040,070
and 9,473,998 shares issued and outstanding in 2011 and 2010, respectively	452,514	94,740
Additional paid in capital – common stock	54,612,574	7,882,515
Accumulated other comprehensive loss	(921,614)	_
Accumulated deficit	(29,607,551)	(29,468,043
Total stockholders' equity	24,535,923	4,672,038
Total liabilities and stockholders' equity	\$ 28,119,255	\$ 7,193,690

# Statements of income

For the years ended December 31, 2011 and 2010

	2011		2010
Revenues			
Product	\$ 5,465,730	\$ 4,491	,625
Service	1,688,754	1,777	',619
Royalty	261,439	1,008	3,944
Total revenues	7,415,923	7,278	3,188
Cost of sales	2,897,078	2,929	),163
Gross profit	4,518,845	4,349	),025
Operating expenses			
Research and development	1,669,250	1,471	,405
General and administrative	2,908,471	2,333	3,136
Sales and marketing	209,375	185	5,767
Total operating expenses	4,787,096	3,990	),308
(Loss)/income from operations	(268,251)	358	3,717
Other income/(expense)			
Interest income	128,492	9	9,048
Other income	251		_
Interest expense	_	(2	2,836
Total other income	128,743	6	5,212
(Loss)/income before provision for income taxes	(139,508)	364	1,929
Provision (benefit) for income taxes	_		_
Net (loss)/income	\$ (139,508)	\$ 364	1,929
(Loss)/earnings per share:			
Basic earnings per share	\$ (0.00)	\$	0.01
Diluted earnings per share	\$ (0.00)	\$	0.01
Weighted average number of common shares – basic	34,763,130	26,659	),050
Weighted average number of common shares – diluted	41,139,795	32,375	5,446

Annual report and accounts 2011

# Statements of cash flows

For the years ended December 31, 2011 and 2010

	2011		2010
Cash flows from operating activities			
Net (loss)/income	\$ (139,508	\$	364,929
Adjustments to reconcile net income/(loss) to net cash from operating activities:			
Depreciation and amortization	209,843		193,763
Stock-based compensation expense	410,510		218,910
Changes in operating assets and liabilities:			
Accounts receivable	(319,132	)	343,265
Other receivables	(109,246	)	_
Due from affiliate	(6,628	)	25,038
Deferred contract costs	(64,280	)	_
Inventory	26,917		(11,065)
Deposits	(1,800	)	1,040
Prepaid expenses	(31,754	)	1,700
Refundable income taxes	5,000		(5,000)
Other assets	1,989		1,990
Accounts payable	744,218		(251,163)
Accrued expenses and other liabilities	8,174		(111,761)
Deferred revenue	309,288		(664,664)
Net cash provided by operating activities	1,043,591		106,982
Cash flows from investing activities			
Increase in restricted cash	(50,000	)	_
Payment of patent costs	(105,301	)	_
Purchases of investments	(5,905,580	)	_
Purchases of property, plant, and equipment	(84,231	)	(91,839)
Net cash used in investing activities	(6,145,112	)	(91,839)
Cash flows from financing activities			
Proceeds from initial public offering – net	20,514,497		_
Net cash provided by financing activities	20,514,497		_
Effect of exchange rate changes on cash and cash equivalents	(921,614	)	_
Net increase in cash and cash equivalents	14,491,362		15,143
Cash and cash equivalents at beginning of the year	3,369,993		3,354,850
Cash and cash equivalents at end of the year	\$ 17,861,355	\$	3,369,993
Supplemental disclosure of cash flow information			
Interest paid	<b>s</b> —	\$	2,836

# **Statements of stockholders' equity**For the years ended December 31, 2011 and 2010

		Co	mmon stock			
	Shares		Amounts		Additional paid-in capital	
Balance at December 31, 2009	9,473,998	\$	94,740	\$	7,663,605	
Compensation cost related to amortization of stock options	_		_		218,910	
Net income	_		_		_	
Balance at December 31, 2010	9,473,998	\$	94,740	\$	7,882,515	
Compensation cost related to issuance of Series F shares	_		_		_	
Shares issued during IPO	18,592,320		185,923		22,610,304	
Offering costs	_		_		(2,555,048)	
Warrants issued at IPO	_		_		273,318	
Preferred shares converted	17,185,052		171,851		26,024,915	
Compensation cost related to amortization of stock options	_		_		376,570	
Change in currency translation adjustment	_		_		_	
Net income	_		_		_	
Balance at December 31, 2011	45,251,370	\$	452,514	\$	54,612,574	

<b>\$</b>	(29,607,551)	<del>-</del>	•		• •		•	(921,614)	•	24,535,923
¢	(20 607 EE1)		\$		\$		\$	(021 614)	\$	24 535 923
	(139,508)	_		_		_		_		(139,508)
	_	_		_		_		(921,614)		(921,614)
	_	_		_		_		_		376,570
	_	(17,882,179)		(178,822)		(26,017,944)		_		_
	_	_		_		_		_		273,318
	_	_		_		_		_		(2,555,048)
	_	_		_		_		_		22,796,227
	_	5,656,615		56,566		(22,626)		_		33,940
\$	(29,468,043)	12,225,564	\$	122,256	\$	26,040,570	\$	_	\$	4,672,038
	364,929	_		_		_		_		364,929
	_	_		_		_		_		218,910
\$	(29,832,972)	12,225,564	\$	122,256	\$	26,040,570	\$		\$	4,088,199
	Accumulated deficit	Shares		Amounts		Additional paid-in capital		cumulated other prehensive loss	sto	Total ckholders' equity
	_		Pr	eferred stock						

# Statements of convertible preferred stock

For the years ended December 31, 2011 and 2010

horized				
Shares issued		Amounts		Additional paid-in capital
4,167,000	\$	41,670	\$	4,659,432
(4,167,000)		(41,670)		(4,659,432)
_	\$	_	\$	_
_	\$	_	\$	_
1,653,666	\$	16,537	\$	1,571,364
(1,653,666)		(16,537)		(1,571,364)
_	\$	_	\$	_
_	\$	_	\$	_
1,777,778	\$	17,778	\$	3,948,393
(1,777,778)		(17,778)		(3,948,393)
_	\$	_	\$	_
_	\$	_	\$	_
1,516,300	\$	15,163	\$	6,176,537
(1,516,300)		(15,163)		(6,176,537)
_	\$	_	\$	_
_	\$		\$	_
1,670,443	\$	16,704	\$	7,475,176
(1,670,443)		(16,704)		(7,475,176)
_	\$	_	\$	_
_	\$	_	\$	_
_	\$	_	\$	_
5,656,614		56,566		(22,626)
(5,656,614)		(56,566)		22,626
_	\$	_	\$	_
_	\$	_	\$	_
	\$\text{Shares issued} 4,167,000 (4,167,000)	Shares issued         4,167,000 (4,167,000)         — \$         — \$         1,653,666 (1,653,666)         — \$         1,777,778 (1,777,778)         — \$         1,516,300 (1,516,300)         — \$         1,670,443 (1,670,443)         — \$         5,656,614 (5,656,614)         — \$	Shares issued       Amounts         4,167,000 (4,167,000)       \$ 41,670 (41,670)         — \$ —         1,653,666 (14,16537)       \$ 16,537 (16,537)         — \$ —         1,777,778 (17,778)       \$ 17,778 (17,778)         — \$ —         1,516,300 (15,163)       \$ 15,163 (15,163)         — \$ —         1,670,443 (16,704)       \$ 16,704 (16,704)         — \$ —         5,656,614 (5,656,614)       \$ 56,566 (56,566)         — \$ —       \$ —         5,656,614 (5,656,614)       \$ (56,566)	Shares issued       Amounts         4,167,000 (4,167,000)       \$ 41,670 (41,670)         — \$ — \$       — \$         1,653,666 (1,6537)       \$ 16,537 (16,537)         — \$ — \$       — \$         1,777,778 (1,7778)       \$ 17,778 (17,778)         (1,777,778)       (17,778)         — \$ — \$       — \$         — \$ — \$       — \$         1,516,300 (15,163)       (15,163)         — \$ — \$       — \$         — \$ — \$       — \$         1,670,443 (16,704)       (16,704)         — \$ — \$       — \$         5,656,614 (5,656,614)       (56,566)         — \$ — \$       — \$

# Designated preferred stock \$0.01 par value, 15,882,178 shares authorized continued

	Shares issued	Amounts	Additional paid-in capital
Series B-1 convertible preferred stock (2,000,000 shares) designated			
Balance at December 31, 2010	913,472	\$ 9,135	\$ 1,498,091
Conversion to common shares at IPO	(913,472)	(9,135)	(1,498,091)
Balance at December 31, 2011	_	\$ _	\$ _
Liquidation value at December 31, 2011	_	\$ _	\$ _
Series B-2 convertible preferred stock (600,000 shares) designated			
Balance at December 31, 2010	361,832	\$ 3,618	\$ 539,130
Conversion to common shares at IPO	(361,832)	(3,618)	(539,130)
Balance at December 31, 2011	_	\$ _	\$ _
Liquidation value at December 31, 2011	_	\$ _	\$ _
Series B-3 convertible preferred stock (150,000 shares) designated			
Balance at December 31, 2010	112,105	\$ 1,121	\$ 133,404
Conversion to common shares at IPO	(112,105)	(1,121)	(133,404)
Balance at December 31, 2011	_	\$ _	\$ _
Liquidation value at December 31, 2011	_	\$ _	\$ _
Series B-4 convertible preferred stock (100,00 shares) designated			
Balance at December 31, 2010	52,080	\$ 521	\$ 38,539
Conversion to common shares at IPO	(52,080)	(521)	(38,539)
Balance at December 31, 2011	_	\$ _	\$ _
Liquidation value at December 31, 2011	_	\$ _	\$ _
Series B-5 convertible preferred stock (100,000 shares) designated			
Balance at December 31, 2010	888	\$ 9	\$ 504
Conversion to common shares at IPO	(888)	(9)	 (504)
Balance at December 31, 2011	_	\$ _	\$ _
Liquidation value at December 31, 2011	_	\$ _	\$ _

Spectra Systems Corporation

# Notes to the financial statements

For the years ended December 31, 2011 and 2010

# Note A - Corporate information

Spectra Systems Corporation (the "Company") develops and sells integrated optical systems that provide customers with increased efficiency, security tracking and product life. The integrated systems combine consumables and engineered optical materials with software and hardware for use in applications. The Company develops and sells its integrated solutions across a spectrum of markets, including currency manufacturing, industrial logistics and other highly sensitive documents.

The Company was incorporated on July 3, 1996 in Delaware as Spectra Acquisition Corporation. On August 26, 1996, the Company purchased substantially all of the assets of SSC Science Corporation ("SSCSC") and changed its name to Spectra Science Corporation. The assets were purchased for \$1,654,000 in cash plus common stock warrants. The acquisition was accounted for using the purchase method of accounting.

On June 8, 2001, the Company changed its name to Spectra Systems Corporation.

On July 25, 2011, the Company raised \$20,241,179, net of offering costs, on the London Stock Exchange in a placing of 18,592,320 common shares at a placing price of £75.3 per new common share (the "Placing Price"), representing 41.09% of the enlarged common share capital of the Company. As a result of the offering, anti-dilution provisions found in the Company's Amended and Restated Certificate of Incorporation converted all of the issued and outstanding preferred shares into 17,185,052 common shares giving 26,659,050 common shares in issue at the time of the placing.

# Note B - Significant accounting policies

# Use of estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and judgments that affect the amounts reported in the financial statements and accompanying notes. The accounting estimates that require the management's most difficult and subjective judgments include the assessment of recoverability of property, plant, and equipment; the valuation of inventory; and the recognition and measurement of income tax assets and liabilities. The actual results experienced by the Company may differ materially from management's estimates.

# Cash and cash equivalents

The Company considers highly liquid investment purchases with a maturity of 90 days or less at date of acquisition to be cash equivalents.

Restricted cash represents money market investments held as collateral for certain performance agreements entered into by the Company in 2002 and 2011 as required in accordance with terms of a services contract. At December 31, 2011 and 2010, the agreement required \$1,050,000 and \$1,000,000, respectively, to be maintained as collateral. The collateral will be released as the Company meets contractual milestones.

# Concentration of credit risk and significant customers

Financial instruments, which potentially subject the Company to concentrations of credit risk, consist principally of cash and cash equivalents and trade accounts receivable. The Company's cash management policies restrict investments to low-risk highly liquid securities and the Company restricts its transactions to financial institutions with good credit standing. The Company has cash, including restricted, on deposit with three financial institutions that are insured by the Federal Deposit Insurance Corporation ("FDIC") up to \$250,000 per institution. As of December 31, 2011, the amount in excess of the FDIC limit was \$5,405,366. Also included in cash at December 31, 2011 is \$543,048 of money market funds at a financial institution and \$12,081,519 of cash in a bank account in the United Kingdom. Both accounts are not FDIC insured. The foreign bank account is subject to exchange rate changes.

Concentrations of credit risk with respect to trade accounts receivable are limited due to the concentration of business with government entities.

The following table summarizes the number of customers that individually comprise greater than 10% of total revenues and their aggregate percentage of the Company's total revenues:

2011	4	95%
2010	3	82%
Year ended December 31	Number of significant customers	Percentage of total revenues

# Note B - Significant accounting policies continued

# Concentration of credit risk and significant customers continued

The following table summarizes the number of customers that individually comprise greater than 10% of total accounts receivable and their aggregate percentage of the Company's total accounts receivable:

2011	5	95%
2010	3	81%
Year ended December 31	Number of significant customers	Percentage of total receivables

During 2011 and 2010, the Company had purchases of approximately \$1,413,000 and \$1,280,000, respectively, with one vendor.

# Fair value of financial instruments

The carrying amounts of the Company's financial instruments, which include cash and cash equivalents, accounts receivable and accounts payable, are carried in the financial statements at amounts that approximate their fair market values at December 31, 2011 and 2010. The carrying values of such financial instruments approximated their respective fair values as of each balance sheet presented.

Fair value is the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair value is estimated by applying the following hierarchy, which prioritizes the inputs used to measure fair value into three levels and bases the categorization within the hierarchy upon the lowest level of input that is available and significant to the fair value measurement:

**Level 1** – Quoted prices in active markets for identical assets or liabilities.

**Level 2** – Observable inputs other than quoted prices in active markets for identical assets and liabilities, quoted prices for identical or similar assets or liabilities in inactive markets, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

**Level 3** – Inputs that are generally unobservable and typically reflect management's estimate of assumptions that market participants would use in pricing the asset or liability.

The Company's investments consist of a foreign certificate of deposit of \$5,905,580 in the United Kingdom that the Company considers a level 2 investment. The certificate of deposit is subject to exchange rate changes.

# Accounts receivable

There is no allowance for doubtful accounts at December 31, 2011 and 2010. Management has evaluated the accounts receivable and believes that they are all collectable at December 31, 2011.

# Inventory

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

# Intangible assets

Intangible assets are recorded at the purchase price. Amortization is calculated using the straight-line method over the estimated useful lives of assets. The Company evaluates the possible impairment of long-term assets, whenever events or circumstances indicate the carrying value of the asset may not be recoverable.

# Property and equipment

Property and equipment is stated on the basis of cost. Depreciation is calculated using the straight-line method over the following estimated useful lives:

Laboratory equipment 3–5 years
Computer and office equipment 3–5 years
Furniture and fixtures 7 years

Leasehold improvements Shorter of lease term or estimated useful life

Software 3–5 years Manufacturing equipment 5 years

Maintenance and repairs are charged to expense as incurred. When assets are retired or otherwise disposed of, the assets and related allowances for depreciation and amortization are eliminated from accounts and any resulting gain or loss is reflected in income.

Spectra Systems Corporation

# Notes to the financial statements

For the years ended December 31, 2011 and 2010 continued

# Note B - Significant accounting policies continued

# Computer software

The Company capitalizes certain costs in connection with developing new internal software once certain criteria are met. Overhead, general and administrative and training costs are not capitalized.

# Investment in affiliates

The Company accounts for investments in affiliates under the cost method of accounting if the Company owns less than 20% of the affiliates' outstanding capital. As of December 31, 2011, the Company held a 19% ownership in an affiliate (SpectraMed) and a 10% ownership in an affiliate (Solaris). These affiliates have had significant losses in prior years and the Company had previously reduced its investments in these affiliates to \$nil.

# Accounting for stock-based compensation

In accounting for the Employee Stock Option Plan, the Company uses the Black-Scholes option pricing model to calculate compensation costs associated with options granted to employees. Total compensation costs are recorded over the option vesting period, generally three years. The Company recorded compensation costs of \$410,510 and \$218,910 for 2011 and 2010, respectively, under the Plan.

# Revenue recognition

Product revenue includes sales of pigments and security taggants, delivery of prototypes and contracts with multiple elements including nonrecurring engineering and follow-on manufacturing. Service revenue includes research and development services provided for a fixed price or provided for a specific period.

Revenues related to sales of pigments and security taggants and research and development services provided for a specific period are generally recognized when products are shipped or services are provided, the risk of loss has passed to the customer, the sales price is fixed or determinable and collectability is reasonably assured.

Revenue from multiple element arrangements is recognized once all elements of the contract are delivered unless the following criteria have been met: (1) the product or service has been delivered; (2) the fee for the delivered element is not subject to forfeiture, refund or concession based on performance or delivery of the undelivered element; and (3) the fair value of the undelivered element is determined based upon the price charges by the Company or the price charged by competitors when similar services or products are sold separately, in which case the revenues for each element will be recognized independently in accordance with the Company's policy.

Royalties are recognized when they are earned based on sales or use of technologies by third parties except where future income is not anticipated to cover non-refundable advances received, when the excess royalty is taken to income.

In accordance with the Company's accounting policy, in 2010 revenue of \$703,081 has been recognized as royalty income as it is not anticipated that these non-refundable, advance royalties will be covered by future income based on sales by the licensee.

# Research and development

Internal research and development costs are expensed as incurred. Third party research and development costs are expensed when the contracted work has been performed or as milestones have been achieved. At December 31, 2011, the Company has an outstanding contract with a third party to adapt an existing capability to certain specific requirements. Such costs totaling \$64,280 have been capitalized as deferred contract costs and are being expensed as certain milestones are met.

# Advertising costs

Advertising costs are charged to expense when incurred. Advertising expense was \$nil and \$8,742 in 2011 and 2010, respectively.

# Income tax

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income taxes. The benefits from net operating losses carried forward may be impaired or limited in certain circumstances. In addition, a valuation allowance can be provided for deferred tax assets when it is more likely than not that all or some portion of the deferred tax asset will not be realized. The Company had a deferred tax asset of \$1,246,000 at December 31, 2011 and 2010.

# Shipping and handling

The Company reports the cost of shipping and handling as an operating expense. Shipping and handling expense was \$50,332 and \$38,620 for 2011 and 2010, respectively.

# Subsequent events

In preparing these financial statements, the Company has evaluated events and transactions for potential recognition or disclosure through April 17, 2012, the date the financial statements were available to be issued.

# Note C - Related party transactions

100% of the sales of the Company's phosphor products, which amounted to \$1,379,442 and \$358,202 for the years ended December 31, 2011 and 2010, respectively, are to a company owned by a shareholder.

# **Note D - Inventories**

Inventories consist of the following:

	Decei	mber 3	31
	2011		2010
Raw materials	\$ 791,328	\$	794,062
Finished goods	21,124		45,307
	\$ 812,452	\$	839,369

# Note E - Property and equipment

Property and equipment consists of the following:

	December 31			31
		2011		2010
Laboratory equipment	\$	427,885	\$	474,422
Computer and office equipment		466,465		439,913
Furniture and fixtures		98,171		105,109
Leasehold improvements		375,092		367,937
Software		307,054		307,054
Manufacturing equipment		1,045,821		1,054,865
Total		2,720,488		2,749,300
Less: accumulated depreciation		(2,479,237)		(2,451,187)
	\$	241,251	\$	298,113

Depreciation expense amounted to \$141,093 and \$125,013 for the years ended December 31, 2011 and 2010, respectively.

# Note F - Intangible assets

Intangible assets consist of the following:

	December 31			31
		2011		2010
Patents	\$	792,801		687,500
Less: accumulated amortization		(618,750)		(550,000)
	\$	174,051	\$	137,500

Amortization expense amounted to \$68,750 for the years ended December 31, 2011 and 2010.

Spectra Systems Corporation

# Notes to the financial statements

For the years ended December 31, 2011 and 2010 continued

# Note G - Other assets

Other assets consist of the following:

	Dece	mber 3	1
	2011		2010
Rental deposits	\$ 8,800	\$	7,000
License agreements	8,456		10,445
	\$ 17,256	\$	17,445

# Note H - Accrued expenses and other liabilities

Accrued expenses and other liabilities consist of the following:

	December 31			
		2011		2010
Royalties	\$	346,613	\$	273,942
Employee compensation		164,407		242,135
Professional fees		82,365		41,750
Property and sales taxes		12,812		26,284
Product warranty		25,000		25,000
Other		26,849		40,761
	\$	658,046	\$	649,872

# Note I - Income taxes

The approximate components of the income tax (benefit)/provision are as follows:

	December 31		1	
		2011		2010
Federal income tax (benefit)/provision computed at federal statutory rate	\$	(34,000)	\$	117,000
State income taxes (benefit)/provision		(8,000)		22,000
Federal deferred		72,000		14,000
State deferred		12,000		509,000
Change in valuation allowance		263,000		(662,000)
Utilization of net operating losses		(305,000)		_
Income tax benefit	\$	_	\$	_

December 31

# Note I - Income taxes continued

Approximate deferred income tax assets are as follows:

	2011	2010
Depreciation and amortization	\$ 193,000	\$ 118,000
Deferred revenue	712,000	590,000
Deferred rent	1,000	1,000
Federal and state tax credits	620,000	761,000
Inventory	40,000	28,000
Accrued warranty	10,000	10,000
Deferred contract costs	(26,000)	_
Net operating loss carried forward	7,843,000	8,148,000
Valuation allowance	(8,147,000)	(8,410,000)
Total deferred income tax assets	\$ 1,246,000	\$ 1,246,000

The Company uses an effective tax rate of 40% consisting of a federal rate of 34% and a state rate of 6% net of federal effect.

As of December 31, 2011, the Company had net operating loss carried forwards expiring between 2017 and 2027 for U.S. federal income tax purposes of approximately \$23,069,000. A valuation allowance has been established for \$8,147,000 and \$8,410,000 as of December 31, 2011 and 2010, respectively, for the deferred tax benefit related to those loss carried forwards and other deferred tax assets.

At December 31, 2011, the Company also had approximately \$579,000 and \$41,000 of tax credit carried forwards that are available to offset federal and state liabilities, respectively. The federal and state credits will begin to expire between 2017 and 2030 for federal credits and 2012 for state credits.

For tax purposes, the Company has a capital loss carried forward of \$700,000. No tax benefit has been assigned to this amount. Capital losses can only be used to offset capital gains and expire five years after the date of loss. Management deems the future utilization of this loss unlikely.

In 2007, SpectraDisc Corporation merged with the Company. SpectraDisc Corporation has net operating loss carried forwards of approximately \$1,400,000 and tax credit carried forwards of \$8,300. Due to the restrictive nature of IRS code Sections 382 and 383, management deems the future utilization of net operating losses and tax credits unlikely and has elected not to include them in the deferred tax calculations.

The utilization of the tax carried forwards described above is dependent upon future profitability prior to any expiration dates. Additionally, alternative minimum taxes, if any, and substantial changes in ownership and tax laws and regulations may substantially limit their realization.

# Note J - Accounting for uncertainty in income taxes

The Company accounts for the effect of any uncertain tax positions based on a "more likely than not" threshold to the recognition of the tax positions being sustained based on the technical merits of the position under scrutiny by the applicable taxing authority. If a tax position or positions are deemed to result in uncertainties of those positions, the unrecognized tax benefit is estimated based on a "cumulative probability assessment" that aggregates the estimated tax liability for all uncertain tax positions. The Company is not currently under examination by any taxing jurisdiction. The Company's federal and state income tax returns are generally open for examination for three years following the date filed.

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# Notes to the financial statements

For the years ended December 31, 2011 and 2010 continued

# Note K - Commitments

# Lease commitments

The Company holds various real estate leases. The Company's lease agreement for corporate office space expires September 30, 2012. In 2011, the Company's lease for laboratory space in East Providence, Rhode Island was extended through May 31, 2014. Rent expense was \$224,291 and \$232,812 for the years ended December 31, 2011 and 2010, respectively.

Future minimum lease payments are as follows:

Year ending December 31

	\$ 430.325
2014	67,320
2013	160,021
2012	\$ 202,984

# License and supply agreements

In 1996, and subsequently amended in 1999 and 2002, the Company entered into a license agreement under which the Company obtained a non-exclusive right to use certain technology through the term of the licensor's patents on such technology. The license agreement contains provisions for royalties to be paid on sales of products developed under the agreement. For the years ended December 31, 2011 and 2010, the Company recorded \$209,908 and \$139,136, respectively, in royalty expense.

On March 8, 1999, the Company entered into a license agreement with a shareholder who provides product consulting, technical services and technical know-how to facilitate incorporation of the Company's technology into products the shareholder sells to US government agencies. In exchange for these services, the Company agreed to pay \$200,000, of which \$10,000 was due at December 31, 2000. The remaining \$190,000 was paid in 2004. In addition, the shareholder is entitled to 30% of the profit of future sales. For the years ended December 31, 2011 and 2010, the Company recorded \$12,569 and \$nil, respectively, in royalty expense. The term of the agreement is 15 years from the date the US government agencies commenced use of the technology, but no longer than 20 years after the agreement's effective date.

In 2002, the Company entered into a supply agreement whereby the Company agreed to purchase a certain quantity of laser materials at the established price. Under the terms of the agreement, the Company is required to purchase all materials from one vendor. The Company met its obligations under that agreement. The Company is also required to purchase all spare parts for the laser materials from that vendor until December 2013. During 2011 and 2010, the Company has purchased \$205,340 and \$477,771, respectively, of materials.

# Note L - Stockholders' equity

# Common and preferred stock

The Company's Certificate of Incorporation, as amended in 2007, authorizes the Company to issue 125,000,000 shares of common stock (the "Common Stock"), \$0.01 par value, and 17,882,179 shares of preferred stock (the "Preferred Stock"), \$0.01 par value, of which 2,000,000 shares are undesignated. The Board designated 4,167,000 shares of preferred stock as Series A Convertible Preferred Stock ("Series A"), 1,700,000 as Series B Convertible Preferred Stock ("Series B"), 2,000,000 as Series B-1 Convertible Preferred Stock ("Series B-1"), 600,000 as Series B-2 Convertible Preferred Stock ("Series B-2"), 150,000 as Series B-3 Convertible Preferred Stock ("Series B-3"), 100,000 as Series B-4 Convertible Preferred Stock ("Series B-4"), 100,000 as Series B-5 Convertible Preferred Stock ("Series B-5"), 1,777,778 as Series C Convertible Preferred Stock ("Series C"), 2,362,400 as Series D convertible Preferred Stock ("Series D"), and 2,925,000 as Series E-1 Convertible Preferred Stock ("Series E-1").

On June 7, 2011, the Board resolved to effect a filing with the Delaware Secretary of State whereby 3,656,614 shares of its authorized, designated, but unissued shares of preferred stock resumed their prior status as undesignated preferred stock of the Corporation. Such filing became effective as of June 17, 2011.

On June 7, 2011, the Board approved the designation of 5,656,614 of its undesignated shares of preferred stock, as "Series F Convertible Preferred Stock", par value \$0.01 per share, with certain rights and preferences. The related certificate was filed and became effective with the Delaware Secretary of State on June 22, 2011. The Company's Series F Convertible Preferred Stock converts automatically into a total of 56,566 common shares immediately prior to a qualified IPO, unless earlier converted at the discretion of the Company.

# Note L - Stockholders' equity continued

# Common and preferred stock continued

On June 23, 2011, the Company issued to five of its employees an aggregate of 5,656,614 shares of its Series F Convertible Preferred Stock for services rendered.

The Company valued these as common stock on the date of issue at a price of \$0.60 per share. Accordingly, \$33,940 has been recognized as compensation expense.

On July, 25 2011, the Company raised \$20,241,180, net of offering costs, on the London Stock Exchange in a placing of 18,592,320 common shares at a placing price of £75.3 per new common share (the "Placing Price"), representing 41.09% of the enlarged common share capital of the Company. As a result of the offering, anti-dilution provisions found in the Company's Amended and Restated Certificate of Incorporation converted all of the issued and outstanding preferred shares into 17,185,052 common shares giving 26,659,050 common shares in issue at the time of the placing.

#### Conversion

The preferred shares are convertible into common shares at a rate determined by dividing the applicable conversion value by the applicable conversion price for each series of Preferred Stock. The conversion values and conversion prices, as those terms are defined in the Company's Amended and Restated Certificate of Incorporation, are subject to certain adjustment. The preferred shares may be converted in common shares at the option of the stockholder at any time. The conversion of the preferred shares shall occur automatically immediately prior to a public offering of the Company's Common Stock that raises gross proceeds of at least \$5,000,000. All such shares were converted on July 25, 2011.

# Warrants

# • 2008 common stock warrants

On April 7, 2008, the Company raised \$600,000 in exchange for 1,000,000 common shares valued at \$0.60 each. The Company paid a 10% commission and also provided the agent with warrants to purchase 275,000 common shares at an exercise price of \$0.60 per share. The warrants expire on April 7, 2013. The Company believes the fair value of the warrants to be immaterial at December 31, 2011.

# • WH Ireland warrant agreement

Pursuant to a warrant agreement dated July 19, 2011, the Company created and issued warrants to WH Ireland under Regulation D of the US Securities Act, which entitles the holder to subscribe for up to 452,514 common shares at an exercise price of £0.753 per share. The warrants expire on July 25, 2014. Under the Black-Scholes pricing model, the Company believes the fair value of the warrants to be \$273,318. These costs have been included as part of the offering costs.

# Stock option plan

In December 1996 the Company's Board of Directors, who control a majority of the shares of the Company, approved the 1997 Stock Option Plan (the "1997 Plan").

The 1997 Plan provided that key employees, non-employee Directors and certain consultants and advisors may be granted either non-qualified or incentive stock options for the purchase of the Company's common stock at the fair market value, on the date of the grant. Stock options generally vest over three years. The options would be exercisable over a period up to ten years from the date of grant.

In February 2002, the Company adopted the 2002 Stock Plan (the"2002 Plan"), which provided for the grant of incentive stock options and non-qualified stock options, stock awards and stock purchase rights for the purchase of up to 1,500,000 shares of the Company's common stock to officers, employees, consultants and Directors of the Company. The Board of Directors is responsible for administration of the 2002 Plan. The Board determines the term of each option, the option exercise price and the number of shares for which each option is granted and the rate at which each option is exercisable. Incentive stock options may be granted to an officer or employee at an exercise price per share of not less than the fair value per common share on the date of the grant (not less than 110% of fair value in the case of holders of more than 10% of the Company's voting stock) and with a term not to exceed ten years from the date of the grant (five years for incentive stock options granted to holders of more than 10% of the Company's voting stock). Non-qualified stock options may be granted to consultants or Directors at an exercise price per share of not less than 85% of the fair value of the common stock.

Upon the effective date of the 2002 Plan, the 1997 Plan was terminated. The termination did not affect the previously issued options.

In 2007, the number of shares available for grant under the 2002 Plan increased from 1,500,000 to 3,500,000.

Spectra Systems Corporation

# Notes to the financial statements

For the years ended December 31, 2011 and 2010 continued

# Note L - Stockholders' equity continued

# Stock option plan continued

In May 2007, the Company adopted the 2007 Stock Plan (the "2007 Plan"), which provided for the grant of incentive stock options and non-qualified stock options, stock awards and stock purchase rights for the purchase of up to 14,100,000 shares of the Company's common stock to officers, employees, consultants and directors of the Company. The Board of Directors is responsible for administration of the 2007 Plan. The Board determines the term of each option, the option exercise price and the number of shares for which each option is granted and the rate at which each option is exercisable. Incentive stock options may be granted to an officer or employee at an exercise price per share of not less than the fair value per common share on the date of the grant (not less than 110% of fair value in the case of holders of more than 10% of the Company's voting stock) and with a term not to exceed ten years from the date of the grant (five years for incentive stock options granted to holders of more than 10% of the Company's voting stock). Non-qualified stock options may be granted to consultants or Directors at an exercise price per share of not less than 85% of the fair value of the common stock.

Both the 2007 Plan and the 2002 Plan existed at December 31, 2011.

At December 31, 2011, 2,362,564 options were available for grant under the 2002 Plan and 7,919,197 options were available under the 2007 plan. 636,576 options were issued without a plan.

Information related to stock options granted by the Company is summarized as follows (including certain options granted outside of the Plan):

	December 31, 2011			Decembe	er 31, 2010		
	Number of shares under option		Weighted average exercise price	Number of shares under option		Weighted average exercise price	
Outstanding at beginning of year	5,458,703	\$	0.81	5,404,540	\$	0.80	
Granted	826,000	\$	0.92	390,397	\$	0.60	
Exercised	_	\$	0.00	_	\$	0.00	
Forfeited/canceled	103,900	\$	0.98	336,234	\$	0.39	
Outstanding at end of year	6,180,803	\$	0.82	5,458,703	\$	0.81	

The following table summarizes information about stock options outstanding at December 31, 2011:

		Options outstanding			rcisable
Exercise price range	Number of outstanding shares	Weighted average contractual life (years)	Weighted average exercise price	Number of outstanding shares	Weighted average exercise price
\$0.21-\$1.23	6,089,803	6.12	\$0.75	5,537,562	\$0.77
\$3.85–\$5.75	91,000	0.91	\$5.39	91,000	\$5.39
	6,180,803			5,628,562	

The Company currently uses the Black-Scholes option pricing model to determine the fair value of its stock options. The valuations determined using this model are affected by assumptions regarding a number of complex and various subjective variables including stock price, volatility, expected life of options, risk free interest rates and expected dividends, if any. The assumptions used to value stock option grants for the year ended December 31, 2011 are as follows:

Risk free rate	0.07%–0.24%
Expected life	5 years
Assumed volatility	75.23%–91.72%
Expected dividends	None
Expected forfeitures	None

# Note M - Employee retirement plan

During 1999, the Company adopted a defined contribution Plan, established under the guidelines of Section 401(k) of the Internal Revenue Code ("IRC"), which covers all employees. Employees are eligible to participate in the Plan at the beginning of the first month following the date of hire. Employees may contribute up to the maximum allowed by the IRC of eligible pay on a pretax basis. The Company made a matching contribution of 50% of employee contributions up to 4% of eligible salary. Company matching contributions vest at 25% after one year of service, 50% at the end of two years of service and 100% at the end of three years of service. For the years ended December 31, 2011 and 2010, the Company's matching contribution was \$32,829 and \$30,660, respectively.

# Note N - Contingent liability

In December 2011, the Company was notified by a corporate shareholder regarding a license agreement between the Company and the shareholder dated March 8, 1999. The shareholder has stated that the Company owes the shareholder approximately \$2,100,000 in total for the years 2004 through 2010 based on their interpretation of the license agreement. The Company disagrees with the shareholder's interpretation of the license agreement. The Company has not accrued a liability for the dispute as the outcome is uncertain and an amount cannot be reasonably estimated. The Company is working with the shareholder to resolve the dispute.

# Note O - Earnings per share

The calculation of earnings per share figures for the year ended December 31, 2011 and 2010 is based on the (loss)/profit attributable to ordinary shareholders of (\$139,508) and \$364,929, respectively, divided by the basic and diluted weighted average number of shares in issue, shown in the table below, which assumes that all preferred shares had converted to common shares prior to January 1, 2010.

	Year ended December 31, 2011		Year ended December 31, 2010	
	Number of shares	Weighted average	Number of shares	Weighted average
Basic shares in issue	45,251,370	34,763,130	26,659,050	26,659,050
Share options	6,908,317	6,376,665	5,733,703	5,716,396
Diluted number of shares		41,139,795		32,375,446

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