SPECTRASYSTEMS

# Leading the industry in innovation, performance and sustainability

**Spectra Systems Corporation**
Annual report and accounts 2021


# We invent, develop and manufacture integrated security solutions.

## Spectra is an industry leader in the authentication and gaming controls markets.

Spectra provides integrated solutions comprised of engineered materials and hardware for authentication and software systems which analyze gaming transactions.

Spectra Systems' 20-year track record of providing covert technology to central banks is unmatched. To date, its expertise in LEVEL III authentication has been implemented by 20 central banks, including two in the G7. Its knowledge of optical physics in incorporating taggants and high-speed reading of covert features enables Spectra to provide the highest level of banknote security worldwide.

Discover more online **www.spsy.com**

## STRATEGIC REPORT



## CORPORATE GOVERNANCE



## FINANCIAL STATEMENTS



# HIGHLIGHTS

### Revenue (US$ million)

# 16.6

(2020: 14.7)


### Adjusted PBTA (US$ million)

# 6.6

(2020: 6.0)


### Adjusted earnings per share (US¢)

# 12.0

(2020: 11.9)


## Financial highlights

- Revenue up 13% for the year at US$16,592k (2020: US$14,675k)
- Adjusted EBITDA[1] up 8% at US$6,896k (2020: US$6,357k)
- Adjusted PBTA[1] up 10% to US$6,622k (2020: US$6,039k)
- Adjusted earnings[2] per share at US$12.0 cents (2020: US$11.9 cents)
- Net income at US$5,163k (2020: US$5,124k)
- Cash generated from operations up 45% to US$8,084k (2020: US$5,574k)
- Strong, debt-free balance sheet, with cash[3] of US$16,775k (2020: US$14,038k)
- Declaring annual dividend of US$0.11 per share to be paid in June
- Buy-back of 500,000 shares during the year
- Donated US$35k to Leicester Royal Infirmary SACT Suite Extension project

1 Before stock compensation expense and non-controlling interest

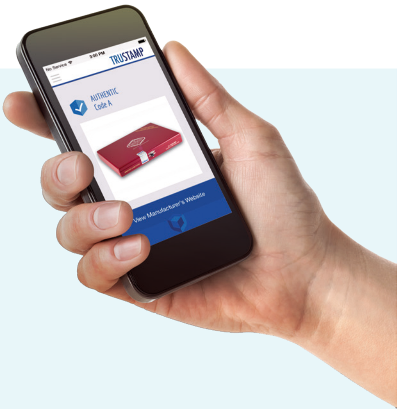
2 Before amortization stock compensation expense and non-controlling interest

3 Does not include US$500k (2020: US$1,099k) of restricted cash and investments

## Operational highlights

- Execution of a contract with our central bank customer relating to the second phase of the sensor development program followed by an amendment to include the capability to detect exotic counterfeit notes
- Renewed the agreement for the supply of banknote security materials with our long-time central bank customer for another five years and received the first year's order which was 65% higher than a typical order
- Received the first orders from a new customer using our materials in K-cups, more than doubling the sales of this product over 2020 levels
- Obtained a new customer for our TruBrand™ product in addition to current tobacco related sales in China
- Established a complete vertical integration of polymer banknote substrate manufacturing to produce ready for printing substrates
- Commenced a polymer print trial with a Middle Eastern central bank
- Validated the efficacy of the Aeris™ banknote cleaning process for deactivating Covid, with third party testing results showing the deactivation of Covid to below detectable limits
- Patented our new Banknote Disinfection System and introduced the product to the market with one Asian central bank requesting a price quotation
- Selected by one of the largest US lotteries to provide our internal control software, expanded the business into Canada with a new contract award and renewed a long-term US lottery customer contract
- Converted to LED lighting at our R&D and manufacturing facilities to reduce our carbon footprint and reduce electric consumption by an estimated 59,000 kwh annually

# Spectra is a highly responsive organization that develops customized solutions for its customers.




Spectra authentication products are comprised of engineered materials and hardware systems which verify the unique signatures of the authentication materials in banknotes and brand products.

Our gaming software platforms are used by lotteries to validate the large number of transactions processed each day.

## 45 billion

banknotes with our security features are circulating worldwide.

## 950 million

dollars of energy drinks sold annually that contain our materials.

## 155 million

American passports contain our document technology.

## 25 million

transactions processed by our ICS gaming technology on a daily basis.

## 60 million

bottles of hair product are protected from counterfeiting with our SpectraGuard technology.

## 8 million

packs of high-end cigarettes protected by our TruBrand™ technology annually.

## OUR CUSTOMERS

**Our end customers include a G7 central bank and one of the world's largest commercial security printers, which has supplied our technology to a second G7 central bank and numerous other central banks.**

Additionally, several recognizable brand authentication customers use our technologies to protect their consumer goods brands, while our Secure Transactions Group provides solutions for 21 lotteries, 17 in the United States of America and four international.

Our solutions have been used by:

- 20 central banks including two G7 central banks;
- commercial security printers and papermakers;
- Crane & Co.;
- suppliers of security threads for world currencies;
- LMI Packaging Solutions;
- Fres-Co System USA, Inc.;
- multinational consumer product companies;
- Governments of Turkey, India, Malaysia, Netherlands and Norway;
- Intralot SA;
- Scientific Games International Inc.;
- International Game Technology PLC;
- lotteries in 17 states within the United States of America; and
- lotteries in four countries.

## OUR MARKETS

**With over 150 billion banknotes manufactured annually worldwide and 85% of all transactions performed using banknotes, this business has proven to be a high-quality, long-term revenue source for the Company.**

The Covid pandemic has highlighted the importance of banknotes as a store of value, particularly in times of crisis. With 20 central banks having used our products and newly developed technologies, particularly for polymer banknotes, we expect continued strong earnings from this sector. With polymer substrate banknotes growing at 18% CAGR, the Company is positioned to enter this market with the only covert, machine-readable substrate.

With billions of dollars lost to counterfeit goods, the ability to empower anyone with a smartphone to authenticate products and banknotes containing our materials transforms the market. Our TruBrand™, TruStamp™ and TruNote™ suite of solutions are the only materials-based smartphone authentication technologies in the world and rely on our proprietary materials rather than easily counterfeited images.

Spectra's current suite of portable reader-based solutions as well as related optical materials can be used for authenticating and tracking consumer and tax-bearing products. Our reader-based business has grown considerably in Asia and has several recognizable brand owners as customers.

Consumer confidence is central to strong lottery sales and any perceptions of indiscretions in the lottery operation can destroy years of effort in building a strong customer base. Lotteries and gaming regulators need an independent mechanism for providing visibility and assurance that their operation is playing by the rules. Many lottery jurisdictions require that an Independent Control System (ICS), such as our Premier64 *Integrity* ICS, be in place to meet consumer assurance requirements.

## OUR SOLUTIONS

### Authentication systems

Spectra's sophisticated capabilities allow us to invent, develop and manufacture integrated solutions comprised of a system of taggant materials and sensor equipment to authenticate banknotes at all levels of security.

- Level I: Provides unique overt, luminescent visual effects, including gas-sensitive materials
- Level II: Provides the public with a smartphone-based solution to examine banknotes for authenticity and denomination
- Level III:
  - Used by 20 central banks, including two G7 banks, our covert materials and sensors provide the highest level of banknote security worldwide
  - World's first and only machine-readable polymer substrate

### Secure transactions

Spectra's Secure Transactions Group is a leading supplier of Independent Control Systems (ICS) for real-time fraud control and risk management to government-sanctioned gaming operators. Currently deployed in North America, Europe and Asia, our systems monitor and audit more than US$20 billion in annual sales for online, internet and mobile phone-based lotteries and pari-mutuel organizations.

Our Premier64 *Integrity* ICS benefits and advantages include:

- fully automated independent real-time monitoring;
- support of both online and instant lottery games; and
- monitoring online systems from all major gaming operators.

### Smartphone authentication

Spectra's materials-based technology enables end-users to authenticate consumer brands and banknotes with a smartphone. This technology eliminates the need for costly readers and allows the consumer to authenticate the product themselves.

- TruBrand™, TruNote™ and TruStamp™ are materials-based technologies that do not rely on easily counterfeited images
- TruTrack™ allows brand owners or government authorities to collect the geographic location, time and authentication status of each scan for monitoring and analysis purposes

### Optical materials

In the course of developing our authentication solutions for over a decade, Spectra has created a large number of unique optical materials which are responsive to various forms of excitation, from light to ambient environmental conditions, including gaseous constituents. These products are used in secure documents as well as K-cups and banknote security threads.

# INVESTMENT CASE

## Our core strengths

Spectra is a profitable, cash–generative technology business with no debt, predictable long-term income streams and excellent growth opportunities.

Discover more online
www.spsy.com


### 1. FUTURE GROWTH OUTSIDE BANKNOTES

- TruBrand™ smartphone authentication technology in use by some Chinese tobacco manufacturers with the potential to transform a brand owner's ability to identify the time and place where counterfeits are found
- Adoption of TruBrand™ smartphone authentication technology outside tobacco industry
- New market opportunities for optical materials in consumer applications
- Expansion of K-cup business to new customers

### 2. SECURE FINANCIAL BASE

- Successfully commercialized optical technologies across multiple sectors
- Approximately 45 billion banknotes worldwide and 155 million US passports contain our security technologies
- Long-term security features for central banks, governments and global corporations which once installed are near permanent features on multi-year contracts
- For the 12 months to December 31 2021:
  - Generated revenues of US$16.6 million
  - Adjusted profit before tax of US$6.6 million
  - Generated cash from operations of US$8.1 million

### 3. TECHNICAL ADVANTAGES

- Very little reliance on third parties
- Manufacturing, servicing and R&D all managed in house
- Long-term management team holds the technical expertise and is fully aligned to shareholders with a collective shareholding of 11% (including share options)
- Next generation of products includes the potentially transformative growth from polymer banknote substrates, to disinfecting solutions and cloud-based authentication and data metrics

### 4. FUTURE GROWTH WITHIN BANKNOTES

- Growth in use of polymer banknotes is a clear opportunity for Spectra to sell Fusion™ its newly developed machine-readable polymer substrate
- Significant scope to increase market share of the growing banknote authentication market through innovative materials
- Breakthrough technology for disinfection of banknotes for casinos and central banks
- A comprehensive contract with a major world central bank for the development, manufacture and servicing of a sensor system with US$8.8 million of development funding and as much as US$50.0 million for the delivery of sensors

# Focused on our future growth.

## Our strategic priorities

Spectra's aim is to generate attractive returns for shareholders made up of capital and income growth (historical dividend yield exceeding 4%).

STRATEGIC AIM

### Capitalize on existing customer relationships and suite of banknote products

**Development strategy**

- Future development of covert materials and sensors will continue to be primarily externally funded
- Increased focus on polymer banknotes
- Additional business from existing customers

**Progress**

- Introduced Fusion™, the world's first machine-readable polymer banknote substrate
- Supplied G7 central bank print works with three advanced quality control units used in the manufacturing of banknotes with our materials
- The execution of a multi-million dollar sensor development and supply contract with a major world central bank
- Developed new exotic counterfeit detection sensor
- Delivered largest order of covert material to G7 central bank in company history
- Commenced a polymer print trial with a middle eastern central bank

**Outlook**

- Complete development and deliver a new suite of sensors to a major world central bank
- A supply agreement for polymer-based technology developed with a major central bank
- Sale of banknote disinfection systems

STRATEGIC AIM

### Leverage our core capabilities to increase high-margin specialty materials sales and expand into new markets

**Development strategy**

- Expand palette of TruBrand™ taggants and applications
- Internal development and licensing of novel phosphors
- Refine staffing to focus on specialty materials and polymer banknote marketing

**Progress**

- Successfully initiated new line of business in consumer products, namely coffee K-cups and added a second customer in late 2021
- Launched a new phosphor which outperforms market-leading material

**Outlook**

- New sales channel for phosphor materials through a major specialty chemical supplier
- Increased opportunities with long-standing G7 customers
- Further expansion of the optical materials business

STRATEGIC AIM

### Advance smartphone authentication technology

**Development strategy**

- Leverage TruBrand™ smartphone technology to create new revenue streams for materials as well as the Secure Transactions Group
- Focus on large, billion unit opportunities

**Progress**

- Obtained approval for TruBrand™ materials on tobacco products sold in China
- Market introduction of our TruBrand™ product in the Chinese market on 8,000,000 packs of cigarettes annually
- Introduction of smartphone-readable packaging films where print is not an option
- Adoption of our TruBrand™ product outside of the tobacco industry through a new stationery supplies customer

**Outlook**

- Use of TruBrand™ on several billion cigarette packs in China
- Continued expansion of TruBrand™ usage to other markets such as food products
- Utilize the Secure Transactions Group for cloud-based server authentication of TruBrand™

# Engaging with our stakeholders

**Section 172**

Section 172 of the Companies Act 2006 requires the Board of Directors to take into consideration the interests of stakeholders and other matters in their decision making. The Board of Directors of the Company believes that they have acted in a way to best promote the success of the Company. The Directors fulfil their duty by ensuring that there is a strong governance structure at the Board level and throughout the Company. The Board regularly reviews our principal stakeholders and how we engage with these stakeholders and has identified our shareholders, customers, employees and suppliers as our key stakeholders. The Board takes seriously the views of these stakeholders in setting and implementing our strategy. In the following pages, we set out how we have engaged with these key stakeholders.

In addition to these key stakeholders, the impact on the environment and the communities in which the Company operates is considered when making decisions. During 2021, the Company donated US$35,000 to the Leicester Royal Infirmary SACT Suite Extension project. In terms of protecting the environment, the Company converted to LED lighting at our research and development and manufacturing facilities to reduce our carbon footprint and reduce electric consumption by an estimated 59,000 kwh annually.

## Shareholders

### Why we engage

- To ensure that our strategy is aligned with the interests of shareholders
- To increase the share price and total shareholder return
- To give a clear and consistent message

### How we engage

- Investor interaction via phone calls, face to face meetings, Zoom meetings, site visits and investor roadshows
- Regular investor meetings following the full year and mid year results
- Issuance of the Annual Report, mid year results and RNS issuances throughout the year
- Updating our investor relations website
- Participate in recorded interviews which are disseminated and posted on our website

## Employees

### Why we engage

- To ensure we maintain a highly motivated and skilled workforce
- To ensure ongoing focus on health and safety and employee wellbeing

### How we engage

- Regularly scheduled meetings to encourage the generation of new ideas
- Senior management maintains an open door policy and invites discussion from our employees
- Professional development and a tuition reimbursement program to support employee progression
- Covid protocols to safeguard the health of our employees
- Senior and long-serving staff are incentivized through the Company Share Option Plan, with 2.8 million options currently outstanding to employees
- Annual holiday party and company outing to foster camaraderie

## Customers

### Why we engage

- To exceed the expectations of our customers and build long-term relationships
- To maintain a high level of product quality

### How we engage

- A dedicated account team for our customers to provide timely responses
- Regular customer meetings to discuss the “customer experience”
- Service-level agreements and quality standards
- Providing 24 x 7 support for critical customer needs
- Going "above and beyond" to meet the complete satisfaction of our customers

## Suppliers

### Why we engage

- To manage supply chain risk, especially in regards to Covid
- To build a global supply chain and develop long-term relationships to make materials and services available when needed
- To ensure the use of the best quality materials and resources we can source
- To ensure security of supply and high supplier standards

### How we engage

- Regular communication with our key suppliers
- Supplier evaluations and audits

# We continue to develop cutting edge technologies to remain the innovation leader in the authentication industry and to offer our shareholders the springboard to even bigger growth of their Company.

### Introduction

Through achieving key commercial milestones, as described in the Review of Operations below, Spectra Systems has delivered an excellent performance for the 2021 financial year, continuing its track record of year-on-year profit growth.

Revenue for the year was US$16,592k (2020: US$14,675k) driven by: larger demand for our materials to meet the increased banknote demands of one of our existing central bank customers, customer funded sensor development efforts and increased sales of our specialty optical material used in K-cups. Adjusted EBITDA (before stock compensation expense) for the year increased 8% to US$6,896k compared to the prior year of US$6,357k, notwithstanding a US$494k provision for excess and obsolete inventory.

Having generated cash from operations of US$8,084k (2020: US$5,574k), cash at the period end amounted to US$16,775k (2020: US$14,038k), excluding US$500k and US$1,099k of restricted cash and investments as of December 31, 2021 and 2020. This is notwithstanding US$4,302k paid to shareholders during June 2021 in the form of the Company's dividend of US$0.095 per share and share buy-backs of US$1,170k.

The Company is therefore declaring an increased annual dividend of US$0.11 per share to be paid in June. The Company will continue to have sufficient cash resources thereafter to execute on its growth plans as well as support the required financial requirements expected from our sensor development customer during the sensor delivery phase.

### Review of operations

#### Physical and Software Authentication Business

The Authentication Systems business generated revenue of US$14,718k (2020: US$13,251k) and adjusted EBITDA of US$6,556k (2020: US$6,121k). Authentication Systems revenues are driven by sales of covert materials and their associated equipment and service, optical and security phosphor materials and license royalties. We sell covert materials directly to one major world central bank and indirectly to numerous other central banks through a major banknote supplier and printer with which we have existing license and supply agreements for the exclusive rights to our technology.

The increased revenue is due to: larger demand for our materials to meet the increased banknote demands of one of our existing central bank customers, customer funded sensor development efforts and increased sales of our product used in K-cups.

The 2020/2021 central bank order for our covert consumables reached the highest level in the Company's history amounting to over three and a half times the average historical order. This order was partially fulfilled in 2020 with the balance delivered in 2021. This exceptional order was followed by the 2021/2022 order from the same central bank which was in turn 75% of the largest order.

Our long-established relationship with this major world central bank continues to drive the introduction of more advanced products and an increasingly steady stream of hardware sales to authenticate our covert materials which reached record sales this year. We have received US$8.8 million of funding from this customer to develop a new generation of sensors with sensor deliveries anticipated to begin in 2024 and continue through 2026. The sensors will be the most advanced authentication sensors in the world with unmatched capabilities and will provide anticipated hardware revenues of approximately US$50 million and service contracts worth in excess of US$8 million over a ten-year period.

We have advanced Fusion™ our machine-readable covert polymer substrate as well as our ability to supply standard polymer substrate by developing a fully integrated and highly secure operation which allows us to sell fully ready for printing substrates with full opacification and conducting layers in all print format requirements. This is a major advancement which allows us to directly compete with the other suppliers in the industry, even at the level of standard polymer substrates without machine readability. In Q4 of 2021 we produced a large number of custom designed polymer substrate sheets with full conductive and opacity layers for a Middle Eastern central bank print trial which is currently in progress. Following the Banknote Conference, we have created early traction with three major central banks including a G7 central bank.

> “The sensors will be the most advanced authentication sensors in the world with unmatched capabilities and will provide anticipated hardware revenues of approximately US$50 million and service contracts worth in excess of US$8 million over a ten year period.

Leveraging our position as a trusted supplier of advanced authentication technology to central banks and in order to respond to the Covid-19 pandemic, we have developed a new system alongside Aeris™, our banknote cleaning equipment. The new patented technology, our Banknote Disinfection System, is capable of disinfecting to sterile levels up to 5,000,000 banknotes in one hour.

**Review of operations** continued

### Physical and Software Authentication Business continued

This technology is expected to gain traction with the increased realization that Covid-19 is likely to become endemic. Marketing of this product is being undertaken jointly with Royal Dutch Kusters Engineering, the world's leading supplier of banknote destruction systems and advanced engineering solutions for unfit currency. We continue to be optimistic that we will sell a first unit(s) in 2022.

With our TruBrand™ smartphone authentication product having been successfully introduced into the Chinese tobacco market on over 6 million packs in retail stores in 2019, we have obtained a new long-term customer in the stationery industry who is suffering from counterfeiting losses in China and have begun another set of trials with a second tobacco company. We have greatly expanded our search for new long-term customers for TruBrand™ and are working with partner companies to secure business for motor vehicle registrations. In addition, we have continued to move forward with an opportunity for milk products in Asia and expect to be in a testing phase in Q2 of 2022.

During H1 of 2021, our K-cup material was accepted for production by a new K-cup lid printer with exceptionally large orders commencing in H2 of 2021. This customer is expected to be approximately 20% larger in sales volume than the current customer and we are confident that this business line will reach a million dollars of high margin materials sales in aggregate in 2022. The new business will not require additional staffing and hence will be accretive to our earnings.

Finally, several of our phosphors with white, red and yellow emissions are under evaluation by several potential customers including a large specialty chemical supplier.

On the software security side of our business, the Secure Transactions Group, formed around the various gaming technology acquisitions made in 2012, generated an Adjusted EBITDA of US$340k (2020: US$236k) on revenue of US$1,874k (2020: US$1,424k). Revenue increased due to software development related to the introduction of new games by our lottery customers. During 2021, we were selected by one of the largest US lotteries to provide our internal control software, renewed a long-term US lottery customer contract and expanded the business into Canada with a new contract award. This new customer we believe will open the door to the other four additional lotteries in Canada where we hope to win contracts based on successful performance with this new Canadian customer. We continue development of a new software platform which has led to costs depressing EBITDA but which will result in lower support costs in the long run.

### Solaris BioSciences Investment Asset

In December 2020, the Company made an investment in Solaris BioSciences, whose core technology is well understood by us. The results of Solaris BioSciences are consolidated by the Company. As Solaris BioSciences is a development stage company, it does not generate revenue and generated an EBITDA loss of US$80k attributable to the Company's ownership share. This loss is included in the Authentication Systems EBITDA of US$6,556k.

Solaris BioSciences is in the early stages of a financing round and currently has approximately US$130,000 of cash to fund its operations. Solaris BioSciences has applied to the UK tax authorities to obtain VCT/EIS status which if granted, will allow Solaris BioSciences to focus its financing in the UK.

## CENTRAL BANK SENSOR DEVELOPMENT CONTRACT

CASE STUDY

Spectra Systems Corporation, a leader in machine-readable high speed banknote authentication, brand protection technologies and gaming security software, is pleased to announce that it has executed an agreement with its central bank customer, in addition to the sensor agreement announced on 2 February 2021, to include a new capability in those sensors to detect "exotic counterfeits". The new contract will result in an additional US$1.2 million of development funding to begin immediately. This contract increases the total development funding to US$8.7 million and could increase the sensor sales revenue by US$7.5 million to US$41.5 million, depending on the total order size.

> "This is a significant development which underpins the central bank's confidence in our technology capabilities and further bolsters the case for cash going forward.
>
> **Nabil M. Lawandy**
> Chief Executive Officer

## Strategy

The Company's strategy for increasing revenue and earnings continues to be focused on both brand authentication and a robust effort to commercialize our covert security technologies with an emphasis on polymer banknotes and technology driven existing central bank customers.

The brand authentication sector offers short-term growth potential and some very large opportunities for smartphone-based technology and advanced optical materials, while the covert banknote security sector provides stable long-term, multi-decade revenues once new contracts are executed.

In addition, we have deliberately and successfully positioned the Company to be the world's only provider of technology for disinfecting banknotes from Covid-19 on a large scale and on a time scale which meets supply challenges for both central banks and casinos. We believe that this is of particular importance for polymer notes where numerous studies, including our own data obtained at Boston University's National Emerging Infections Disease Laboratories, indicate that Covid-19 survives for the longest periods on this type of banknote substrate.

## Prospects

The Company continues to have numerous long-term and short-term prospects. The short-term opportunities are expected in the 2022–2024 period and the long-term opportunities are expected in the 2024–2028 time frame.

The important, near-term opportunities include:

- fulfillment of new, larger than typical pre-Covid-19 orders for covert materials to a long-standing central bank customer during 2022;
- additional sensor development funding;
- completion of the development of the new generation of sensors for a long-standing central bank customer with US$6.2 million of revenue still to be recognized through 2023;
- increased sales of TruBrand™ related products to reach the level of several million dollars per annum in both tobacco and other opportunities such as tax stamps and government documents;
- increase the K-cup business to the US$1 million per annum level and beyond;
- first sales of our newest patent pending phosphor product;
- sale of our first banknote cleaning or decontamination system to central banks;
- qualification with a central bank of our Fusion™ machine-readable polymer substrate;
- expand our gaming software business in Canada and other non-USA customers; and
- supply of quality control equipment to a central bank.

The longer-term opportunities include:

- a supply agreement for our polymer substrate technology (Fusion™) with a major central bank; and
- supply of upgraded sensors worth up to US$50 million to a central bank customer.

The combination of these prospects, both short and long term, has positioned the Company to maintain its excellent progress for the foreseeable future. We continue to develop cutting edge technologies to remain the innovation leader in the authentication industry and to offer our shareholders the springboard to even bigger growth of their Company. We believe that we have a number of transformative opportunities ahead in several aspects of our business that will potentially further accelerate our earnings.

## Dividend

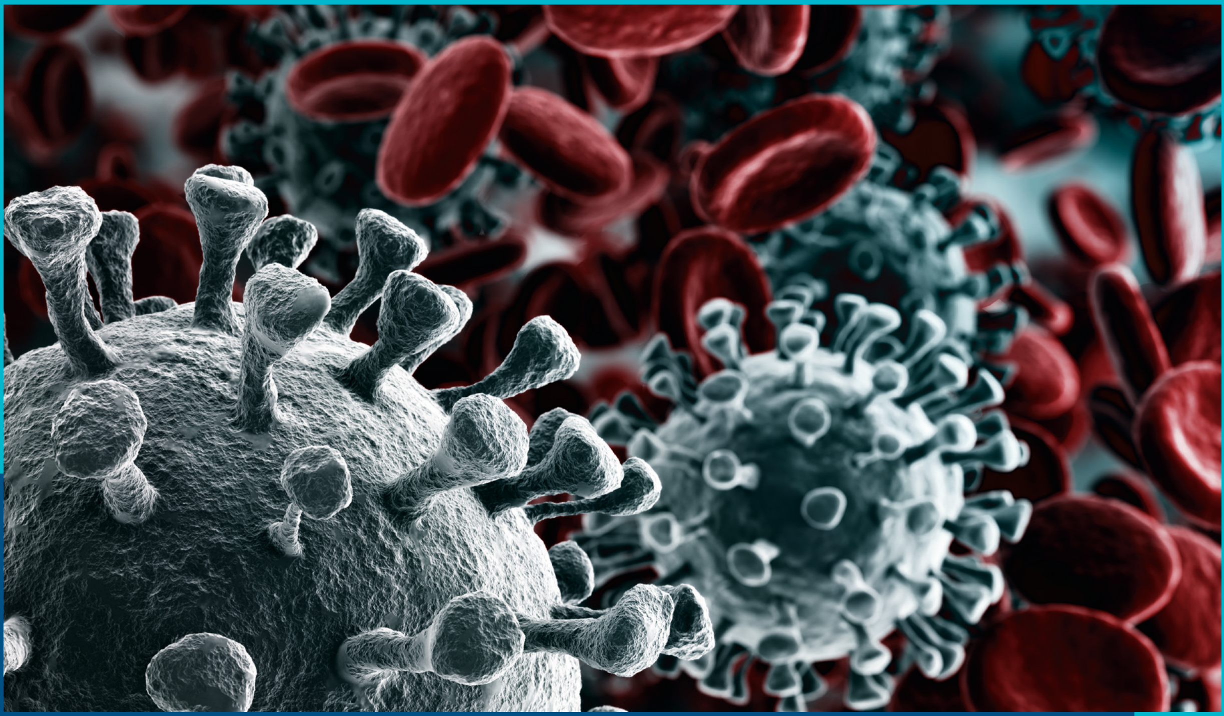
With the Company having a seventh year of sustainable profits, reaching their highest levels since its admission to trading on AIM, and having sufficient resources to execute on its growth plans with its existing cash reserves, the Board is delighted to again issue an increased dividend. Our dividend policy takes account of the Group's profitability, underlying growth and maintenance of sufficient cash reserves. The Board therefore intends to pay an annual dividend of US$0.11 per share on or about June 24, 2022 to shareholders of record as of June 6, 2022.

**Nabil M. Lawandy**
Chief Executive Officer
March 21, 2022

### NEW K CUP ORDERS EXCEED EXPECTATIONS — CASE STUDY

Spectra Systems Corporation, a leader in machine-readable high speed banknote authentication, brand protection technologies, and gaming security software, is pleased to announce that its newest customer using the company's optical materials in K-cups for Keurig brewers has already placed three orders totaling US$394,000 since September. The orders from the new customer are already 93% of the expected 2021 revenues from this product and 46% higher than total orders in 2020.

> "Based on this order pattern, we expect that this new customer, along with the existing customer, will result in over US$1 million of high margin revenue in 2022.
>
> **Nabil M. Lawandy**
> Chief Executive Officer



# Allowance of Banknote Disinfection Patent by the United States Patent and Trademark Office

Spectra Systems Corporation, a leading provider of advanced technology solutions for banknote and product authentication and gaming security, is pleased to announce that it has received a notice of allowance from the United States Patent and Trademark Office for its technology for disinfecting banknotes from SARS-2 and other biohazards. The patent is expected to be issued within six weeks. Additionally, patent applications have been filed in other regions worldwide.

The technology can disinfect five million notes in less than two hours and uses nitrogen obtained from the ambient air to create an oxygen-free atmosphere, along with heat, to deactivate SARS-2.

"The Covid-19 pandemic has raised questions about the health safety of banknotes. Given that several new SARS-2 variants have been shown to be more virulent, it is likely that Covid-19 will become endemic. Central banks and casinos that exchange cash with the public may conclude that a proactive approach rather than denial is the logical approach to maintaining the use of cash worldwide. Our newest product is designed specifically to address this situation effectively, and its patent was, we understand, allowed in record time.

**Nabil M. Lawandy**
Chief Executive Officer

To the Board of Directors and Stockholders of Spectra Systems Corporation

# Our Board of Directors has a collective responsibility to shareholders for the sustainable long-term success of the business.



## BJ PENN
Non-executive Chairman

C G N

Mr. Penn was Acting Secretary of the US Navy from March to May 2009, having previously been Assistant Secretary of the US Navy (Installations and Environment) since 2005. Mr. Penn began his career as a Naval Aviator and was named EA-6B Pilot of the Year in 1972. Throughout his distinguished career, significant leadership assignments included: Executive Officer/Commanding Officer VAQ 33, Battalion Officer at the US Naval Academy, Air Officer on the USS America, Special Assistant to the Chief of Naval Operations, Commanding Officer of NAS North Island, CA, and Deputy Director of the Navy Office of Technology Transfer & Security Assistance. Mr. Penn left the Navy in 1995, joining Loral Corporation as Director of International Business. In 1996, Loral sold its defense electronics and system integration businesses to Lockheed Martin and Mr. Penn was assigned to Lockheed Martin's corporate staff. Mr. Penn returned to the US Navy in 2001 as Director of Industrial Base Assessments.

Mr. Penn received his BS in Industrial Technology from Purdue University and his MS in Human Resource Management and Personnel Administration from the George Washington University. Mr. Penn has also received certificates in Aerospace Safety from the University of Southern California and in National Security for Senior Officials from the Kennedy School, Harvard University. Mr. Penn serves as Trustee at the George Washington University and is on the board of the Naval Aviation Museum.

## NABIL M. LAWANDY
President and Chief Executive Officer

A G

Dr. Lawandy is the founder, President and Chief Executive Officer of the Company. Dr. Lawandy started his career at the NASA Goddard Space Flight Center, where he was a pioneer in the development of sub-millimeter optically pumped lasers. From 1981 to 1999, Dr. Lawandy was a tenured full professor of Engineering and Physics at Brown University, where his work focused on instabilities in single and multimode lasers and a wide spectrum of non-linear optics and atom-field interaction problems. In addition to Spectra Systems Corporation, Dr. Lawandy has founded two other companies, Spectra Disc Corporation and Solaris Nanosciences, and has raised over US$80 million in investment capital.

Dr. Lawandy holds a BA in Physics, and an MS and PhD in Chemistry, all from Johns Hopkins University. Dr. Lawandy has authored over 180 reviewed scientific papers and is an inventor on over 80 US and foreign issued patents. His entrepreneurial and scientific work has been covered in several high-profile publications including the London Financial Times, the Economist, Scientific American, Science News, the Wall Street Journal, Los Angeles Times, the Boston Globe, Fox News and BBC Television. Dr. Lawandy has also received a Presidential Young Investigator Award, an Alfred P. Sloan Fellowship, a Cottrell Award, a Rolex Award for Enterprise and a Samuel Slater Award for Innovation.

## BOARD OF DIRECTORS continued

A Audit Committee

C Compensation Committee

G Government Security Committee

N Nominating Committee

Committee Chairman

### DONALD STANFORD
Non-executive Director

A C N

Mr. Stanford, who was from 1979 until 2001 the Chief Technical Officer of GTECH Corporation, is an Adjunct Professor of Computer Science and Engineering at Brown University and is an instructor in the Program in Innovation, Management, and Entrepreneurship (PRIME). Mr. Stanford is also on the faculty of Brown's School of Professional Studies. Mr. Stanford is a founding member of GTECH (renamed IGT) and, over the course of 30 years, he held every technical leadership position, including Vice President of Advanced Development and Chief Technology Officer. Mr. Stanford serves on several boards including YearUp Providence and the Business Innovation Factory. Mr. Stanford is a founding board member of Times2 STEM Charter School in Providence and served on its board for 20 years. In 2008, Mr. Stanford was re-engaged by IGT as a consultant.

Mr. Stanford is a past member of the RI Science and Technology Advisory Council. Mr. Stanford also served on the Brown advisory councils to the President and the School of Engineering. Mr. Stanford holds a BA in International Relations and an MS in Computer Science and Applied Mathematics, both from Brown University. In 1999, Mr. Stanford received both the Black Engineer of the Year Award for Professional Achievement and the Honorable Thurgood Marshall Award for Community Service from the NAACP. In 2002, Mr. Stanford received the Brown Graduate School's Distinguished Graduate Award and the RI Professional Engineers Award for Community Service.

### JEREMY FRY
Non-executive Director

A C N

Mr. Fry has over 30 years of experience in finance and operations and in particular intellectual property. Following a successful executive international career with large scale enterprises, Mr. Fry, who is based in the UK, established his own consultancy business in 2005. Since forming the consultancy business, he has worked across a broad spectrum of business clients, advising start-ups to publicly listed enterprises. Over the past 15 years he has assumed numerous roles including Executive Chairman, Non-Executive Chairman, Non-Executive Director, CEO and COO leading and supporting a number of successful investor acquisitions and exits. More recently, he has been focused on advisory and non-executive initiatives including his appointment to the boards of Blackspace Security Limited and Sentrybay Limited, leading cyber-security companies working in financial services and regulated markets, where he is Chair of the Audit Committee.

Through 2019 and into 2020, his time was spent working on a very significant restructuring of an industrial company involving negotiations with lenders and shareholders, addressing balance sheet and operational challenges. Mr. Fry, a Chartered Marketeer, holds a degree in Biochemistry and Molecular Biology from Cardiff Metropolitan University (formerly Llandaff Technical College), a postgraduate diploma in Marketing from the Chartered Institute of Marketing via Cardiff Business School and an Executive MBA from the University of Reading.

# Our senior management team highlights our strong internal talent base, providing clear direction and support for all areas of the business.



## BRIAN MCLAIN, Chief Financial Officer and Company Secretary

Mr. McLain has been Spectra's Chief Financial Officer since January 2017. With extensive financial experience in both public and private businesses, Mr. McLain is responsible for managing all financial and administrative functions of Spectra Systems. Before joining Spectra, Mr. McLain served as the Corporate Controller for OMNIlife Science, Inc. and was responsible for all financial and accounting operations. Prior to OMNI, Mr. McLain progressed from the role of Corporate Controller to Vice President, Finance & Business Solutions at SeraCare Life Sciences, Inc. which was quoted on NASDAQ prior to being bought out in 2012.

Previously, Mr. McLain served in various roles at International Power, a UK-owned power producer, and Excelergy Corporation, a venture-backed software business. Mr. McLain started his career at Arthur Andersen, assisting clients with financial statement preparation and other accounting needs. Mr. McLain holds a BS from Boston College and is a licensed Certified Public Accountant.

## WILLIAM GOLTSOS, Vice President of Engineering

G

Dr. Goltsos has been Spectra's Vice President, Engineering, from April 2000 to the present. From September 1996 to April 2000, Dr. Goltsos served as a Senior Systems Engineer for Spectra. Prior to that, from 1992 to 1996, Dr. Goltsos served as a Staff Member of the MIT/Lincoln Laboratory's Optical Communications Group. Dr. Goltsos holds a PhD in Physics from Brown University, an MS in Physics from Brown University, and a BS in Physics from Rensselaer Polytechnic Institute.

## JAMES CHERRY, Director of Business Development

Mr. Cherry serves as Director of Business Development. Mr. Cherry 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, Mr. Cherry had worked for five years at DuPont in product management.

## ANDREI SMUK, Director of Research and Development

Dr. Smuk, who joined the Company in 2000, was appointed Director of Research and Development in 2006. Dr. Smuk is responsible for the development of advanced materials and innovative sensor systems. Dr. Smuk 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.

## SAM HOFER, Director of ICS Operations

Mr. Hofer joined the Company in 2020 as Director of ICS Operations and is responsible for Spectra's lottery business. Mr. Hofer has over 20 years' experience managing software development in various roles including game design, innovation and product management. Recently, Mr. Hofer worked for the British Columbia Lottery Corporation for seven years, exploring innovation for retail lottery as well as managing online lottery as the business and product lead. Mr. Hofer was published in LaFleur's as a thought leader in the lottery industry. Previously, Mr. Hofer served in various roles at Electronic Arts, including Game Designer and Senior Product Manager. Mr. Hofer holds an MBA from Simon Fraser University and is certified as both a Product Manager and Scrum Master.

# CORPORATE GOVERNANCE STATEMENT

## Chairman's statement

The Board of Directors recognizes the importance of sound corporate governance to give our shareholders and other stakeholders confidence in our business. As Chairman of the Board, I have ultimate responsibility for ensuring that the Board adopts and implements a recognized corporate governance code in accordance with our stock market listing on the AIM market of the London Stock Exchange. The Board has adopted the Quoted Companies Alliance (QCA) Corporate Governance Code 2018. The Chief Executive Officer (CEO) has responsibility for the implementation of governance throughout our organization under the direction of the Board.

The QCA Corporate Governance Code 2018 has ten key principles and we set out below how we apply those principles to our business.

**The Honorable BJ Penn**
Chairman of the Board
April 1, 2022

### PRINCIPLE 1
### Establish a strategy and business model which promotes long-term value for shareholders

Please refer to pages 2 to 5 for the details of our strategy and business model.

### PRINCIPLE 2
### Seek to understand and meet shareholder needs and expectations

The Board is committed to understanding and meeting the needs and expectations of its shareholders and believes that maintaining good communications is the best way to do so. The Company informs shareholders through regulatory news announcements and on its corporate website. All shareholders are encouraged to attend the Annual General Meeting. Subject to confidentiality and regulatory restrictions, the CEO meets with shareholders by appointment, which the Board believes has been successful.

### PRINCIPLE 3
### Take into account wider stakeholder and social responsibilities and their implications for long-term success

The long-term success of the Company is dependent on its relationships with its various stakeholders: customers, suppliers and employees amongst others. The Company has built strong relationships with its customers and considers itself a business partner, helping its customers develop solutions to meet their needs. The management team is in constant contact with its customers and seeks feedback to determine customer needs. The Company also maintains relationships with its key suppliers to ensure it is updated on new developments that may be utilized to the benefit of its customers. Our employees are also a key factor in the successful growth of the Company. Management is in constant contact with its employees and encourages employees to generate new ideas. To align employees with the long-term success of the Company, key employees have been granted stock options.

### PRINCIPLE 4
### Embed effective risk management, considering both opportunities and threats, throughout the organization

As a small cap company quoted on the AIM market of the London Stock Exchange, the Board is sensitive to the impact of risks upon the Company. The Board meets with Company management on a regular basis to monitor the risks facing the Company and identify appropriate measures to mitigate any potential impact. The Board assures itself of the efficacy of risk management and related control systems through corporate performance and periodic reports.

## PRINCIPLE 5

### Maintain the Board as a well-functioning, balanced team led by the Chair

The Board is responsible for formulating, reviewing and approving the Company's strategy, budgets and corporate actions. Please refer to page 21 for the details of our Board structure and Committees. Given the size of the Board, Committee topics are often discussed by the full Board rather than limited to each Committee's members. This allows the full Board to stay informed of the particular issues being addressed by each Committee. Please refer to the Directors' report on page 21 for Board attendance.

## PRINCIPLE 6

### Ensure that between them the Directors have the necessary up-to-date experience, skills and capabilities

The Board of Directors brings a broad range of skills to address the challenges faced by a company that sells its products worldwide. The Board consists of highly experienced professionals with complementary backgrounds that meet the needs of the Company. Each Director is responsible for maintaining his or her own skill set, part of which is achieved by remaining active in industry. The Nominating Committee of the Board is tasked with finding and nominating qualified candidates to serve on the Board. Please refer to our Directors' biographies on pages 11 and 12 for more information on our Board of Directors. In addition to the Directors, our Chief Financial Officer and outside General Counsel attend all Board meetings and bring financial, legal and business acumen to Board discussions. The Board and its Committees will also seek external expertise and advice where required.

## PRINCIPLE 7

### Evaluate Board performance based on clear and relevant objectives, seeking continuous improvement

The Board evaluation process is designed to identify opportunities for improving the performance of the Board and to ensure it has the necessary skills and experience to fulfill its responsibilities both today and in the future, through adequate succession planning to the degree appropriate given the size of the Company. Given the current size of the Company, the evaluation process is performed internally, by the Board, on an ongoing basis. Any deficiencies identified will be addressed in a constructive manner and, if necessary, changes of the Board will be considered in conjunction with the Nominating Committee.

## PRINCIPLE 8

### Promote a corporate culture that is based on ethical values and behaviors

The transnational nature of our business operations requires firm action on our part to work with integrity. As a Company, we strive to conduct ourselves according to the highest standards of ethical conduct. Throughout its operations, Spectra seeks to avoid even the appearance of impropriety in the actions of its Directors, officers, employees and agents. The Board has implemented policies to promote ethical conduct and relies on the management team to ensure ethical values and behaviors are respected.

## CORPORATE GOVERNANCE STATEMENT continued

PRINCIPLE 9

### Maintain governance structures and processes that are fit for purpose and support good decision making by the Board

The Board takes responsibility for the performance of the Company and ensures that all decisions are taken in the best interest of the Company. Although the Board has delegated the operational management of the Company to the CEO and other senior management, the Board retains oversight of their actions and retains approval authority for acquisitions, dividend payments and significant expenditures and contracts.

The Chairman is responsible for leadership of the Board and ensuring its effectiveness. The Chairman, with the assistance of the CEO, sets the Board's agenda and ensures that adequate time is available for proper discussion of all items.

The CEO is responsible for running the business and implementing the decisions and policies of the Board. The CEO is also responsible for accurate, appropriate and timely communications with shareholders.

While not a Board member, the CFO attends all Board meetings. The CFO is responsible for the Company's finances, human resources and compliance activities. The CFO seeks the advice of outside General Counsel when necessary.

The Non-executive Directors are appointed to provide strategic advice and independent oversight as well as to challenge the CEO.

The Board may create or disband Committees depending on the operations of the Company. The Board has established the following Committees to assist with oversight and governance: Audit, Compensation, Nominating and Government Security.

The Audit Committee 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 auditor 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 auditor. The Audit Committee comprises Donald Stanford as Chairman, Jeremy Fry and Nabil Lawandy.

The Compensation Committee reviews the performance of the CEO 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 share options and other equity incentives pursuant to any share option scheme or equity incentive scheme in operation from time to time. The Compensation Committee comprises Donald Stanford as Chairman, Jeremy Fry and BJ Penn.

The Nominating Committee comprises BJ Penn as Chairman, Donald Stanford and Jeremy Fry. The Committee seeks and nominates qualified candidates for election or appointment to Spectra's Board of Directors.

The Security Committee 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 Security Committee comprises BJ Penn as Chairman and Nabil Lawandy.

PRINCIPLE 10

### Communicate how the Company is governed and is performing by maintaining a dialogue with shareholders and other relevant stakeholders

The Board is committed to maintaining good communication with all of its stakeholders, including shareholders. The Company's website, and its Investor Relations section in particular, provides useful information to assist stakeholders in assessing the performance of the Company.

Results of shareholder meetings and details of votes cast will be publicly announced through the regulatory information system. The Board will seek to understand the reasons behind any significant votes cast against a resolution at any general meeting.

Board Committee reports are included on pages 17 and 18.

## Audit Committee report

### Dear Shareholder

I am pleased to present our Audit Committee report for 2021 which describes our activities and areas of focus during the year ended December 31, 2021. The Board is satisfied that the members of the Audit Committee bring a wide range of skills, expertise, experience and competence relevant to the sector in which the Company operates and that Donald Stanford possesses the necessary recent and relevant financial experience to effectively chair the Committee.

The main role of the Audit Committee includes:

- monitoring the integrity of the Company's financial statements, including reviewing its annual and half-year financial statements and accounting policies;
- reviewing the effectiveness of the internal controls and risk management; and
- overseeing the relationship with the Company's auditor, Miller Wachman LLP, and assessing the effectiveness of the external audit.

The Audit Committee intends to meet no less than three times each financial year. Given the size of the Company, all Board members typically attend the Audit Committee meetings. In addition, the Chief Financial Officer and the Company's outside General Counsel typically attend the Audit Committee meetings. During 2021, the Audit Committee:

- re-appointed Miller Wachman LLP as the Company's external auditor;
- reviewed and recommended to the Board the approval of the 2020 annual report and the 2021 half-year results announcement;
- reviewed the accounting treatment related to the recognition of revenue for certain development contracts;
- reviewed the provision for excess and obsolete inventory; and
- reviewed the audit approach and scope of the audit work to be undertaken by the external auditor and associated fee.

**Donald Stanford**
Chairman
April 1, 2022

## Nominating Committee report

### Dear Shareholder

I am pleased to present our Nominating Committee report for 2021 which describes our activities and areas of focus during the year ended December 31, 2021. The main role of the Committee is to review the structure, size and composition of the Board, identify and propose to the Board suitable candidates to fill Board positions and keep under review the leadership needs of the Company.

Given the size of the Company, all Board members typically attend the Nominating Committee meetings. In addition, the Chief Financial Officer and the Company's outside General Counsel typically attend the Nominating Committee meetings. During 2021, the Nominating Committee:

- reviewed the composition, size and structure of the Board;
- identified Jeremy Fry as a qualified candidate for the Board and appointed Mr. Fry to the Board after the passing of Martin Jaskel; and
- recommended the re-election of the existing Board members.

**The Honorable BJ Penn**
Chairman
April 1, 2022

## Compensation Committee report

### Dear Shareholder

I am pleased to present our Compensation Committee report for 2021 which describes our activities and areas of focus during the year ended December 31, 2021. The Compensation Committee reviews the performance of the CEO and makes recommendations to the Board on matters relating to his compensation and terms of employment. The Committee also makes recommendations to the Board on proposals for the granting of share options and other equity incentives pursuant to any share option scheme or equity incentive scheme in operation from time to time. The Compensation Committee aims to provide a competitive compensation package which will attract and retain Directors and management with the requisite experience and ability to manage the Company and generate superior long-term performance. The four main elements of the compensation package are: base salary, annual bonus, benefits and share options. Given the size of the Company, all Board members typically attend the Compensation Committee meetings. In addition, the Chief Financial Officer and the Company's outside General Counsel typically attend the Compensation Committee meetings.

During 2021, the Compensation Committee:

- assessed the 2020 performance of the Chief Executive Officer and approved a bonus of US$100,000 based on the excellent financial results for 2020; and
- approved the issuance of stock options.

**Donald Stanford**
Chairman
April 1, 2022

### Directors' interests

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

| | December 31, | |
|---|---|---|
| Ordinary shares | **2021** | 2020 |
| N. Lawandy | **2,247,736** | 2,247,736 |
| B. Penn | **107,436** | 55,467 |
| J. Fry | **—** | — |
| D. Stanford | **45,797** | — |
| | **2,400,969** | 2,303,203 |

### Directors' compensation

The following table details the Directors' earned compensation for the year ended December 31, 2021:

| | Salary and bonus | Benefits | Board fees | Total compensation |
|---|---|---|---|---|
| **Executive Directors** | | | | |
| N. Lawandy | $ 493,750 | $ 31,221 | $ — | $ 524,971 |
| **Non-executive Directors** | | | | |
| B. Penn | — | — | 31,500 | 31,500 |
| J. Fry | — | — | 28,875 | 28,875 |
| D. Stanford | — | — | 31,500 | 31,500 |
| **Total** | **$ 493,750** | **$ 31,221** | **$ 91,875** | **$ 616,846** |

### Directors' share options

At December 31, 2021, Directors had options or warrants to purchase ordinary shares under the Company's stock option plan as follows:

| | Options held at December 31, 2021 | Weighted average exercise price | Options vested at December 31, 2021 |
|---|---|---|---|
| N. Lawandy | 1,881,063 | $ 0.34 | 1,881,063 |
| B. Penn | 100,000 | 0.34 | 100,000 |
| J. Fry | 60,000 | 2.44 | — |
| D. Stanford | 100,000 | 0.34 | 100,000 |
| | **2,141,063** | **$ 0.40** | **2,081,063** |

# for the year ended December 31, 2021

The Directors present their report and the audited consolidated financial statements for the year ended December 31, 2021.

## Domicile

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

## Principal activity

The principal activity of the Company is to invent, develop and sell 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 also provides software tools to the lottery and gaming industries for fraud, money laundering and match fixing detection, as well as statistical analysis.

## Results and dividends

The Company's consolidated statements of income and comprehensive income are set out on pages 24 and 25 and show the results for each year.

There are nominal federal and state income tax liabilities on the respective income tax returns due to timing differences arising between items of income and expense recorded on the books and those reported on the tax returns. Additionally, the Company has approximately US$1.8 million in federal net operating loss carryforwards to offset future income reported on the respective tax returns.

The Directors intend to pay a dividend of US$0.11 per share on or about June 24, 2022 to shareholders of record as of June 6, 2022.

## Review of business and future developments

A review of the operations of the Group is contained in the Spectra at a glance review on pages 2 and 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 condition.

### 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 pricing pressure on existing 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 is dependent on a limited number of employees, in particular the Chief Executive Officer and other managers with technological and development input. The Company has endeavored to ensure that its key employees are incentivized but cannot guarantee the retention of these staff.

### COVID-19 pandemic

The COVID-19 pandemic continues to evolve, with uncertainty about its duration, severity and lasting impact. The Company is subject to vaccine mandates that apply to its employees and may be subject to additional measures as the COVID-19 pandemic continues. The implementation of these mandates and any requirements for showing compliance with them, may result in employee dissatisfaction, attrition of existing employees and difficulty in attracting new employees. The full extent of the impact of the COVID-19 pandemic on the Company's business and financial condition will depend on future developments which are uncertain and cannot be predicted.

### Forward-looking statements

All statements, other than statements 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 predict 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 (in thousands)

- Revenue of US$16,592k (2020: US$14,675k)
- Adjusted EBITDA of US$6,896k (2020: US$6,357k)
- Adjusted PBTA of US$6,622k (2020: US$6,039k)
- Adjusted earnings per share of US12.0 cents (2020: US11.9 cents)

# DIRECTORS' REPORT continued

for the year ended December 31, 2021

## Post-reporting date events

None.

## 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 A of the financial statements and in accordance with United States Generally Accepted Accounting Principles (US GAAP). The Directors of the Company are responsible for the document in which the financial information is included.

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, 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.

## Substantial shareholdings

The following shareholders held 3% or more of the issued common stock of the Company at December 31, 2021:

| | Ordinary shares | % issued |
|---|---|---|
| Mr. and Mrs. N. Slater | 4,666,985 | 10.30 |
| Close Asset Management Limited | 4,610,868 | 10.18 |
| Sandon Capital | 4,255,000 | 9.39 |
| Herald Investment Management Ltd. | 2,929,300 | 6.47 |
| O. Salam | 2,265,764 | 5.00 |
| Canaccord Genuity Group Inc. | 2,250,000 | 4.97 |
| N. Lawandy | 2,247,736 | 4.96 |
| H. Heye | 1,813,850 | 4.00 |
| | 25,039,503 | 55.27 |

## Corporate governance

As of December 31, 2021, the Board comprised one Executive Director, Nabil Lawandy, and three independent Non-executive Directors, BJ Penn as Chairman, Jeremy Fry 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.

Board attendance in 2021

| | | | |
|---|---|---|---|
| N. Lawandy | President and Chief Executive Officer | 8/8 | 100% |
| B. Penn | Non-executive Chairman | 7/8 | 88% |
| J. Fry | Non-executive Director | 8/8 | 100% |
| D. Stanford | Non-executive Director | 8/8 | 100% |

The Board also operates four Committees, the Audit Committee, the Compensation Committee, the Nominating Committee and the Government Security Committee.

The Audit Committee comprised Donald Stanford as Chairman, Nabil Lawandy and Jeremy Fry. 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 auditor 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 auditor.

The Compensation Committee comprised Donald Stanford as Chairman, Jeremy Fry and BJ Penn. It reviews the performance of the Executive Directors and makes recommendations to the Board on matters relating to remuneration and terms of employment. The Committee also makes recommendations to the Board on proposals for the granting of share options and other equity incentives pursuant to any share options scheme or equity incentive scheme in operation from time to time.

The Nominating Committee comprised BJ Penn as Chairman, Jeremy Fry and Donald Stanford. The Committee seeks and nominates qualified candidates for election or appointment to Spectra's Board of Directors.

The Government Security Committee comprises BJ Penn as Chairman and Nabil 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 the 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. 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.

## Auditor

All of the current Directors have made themselves aware of any information needed by the Company's auditor for the purpose of its audit and have established that the auditor is aware of that information. The Directors are not aware of any relevant information of which the auditor is unaware.

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

By order of the Board

**Brian McLain**
Company Secretary
April 1, 2022

# INDEPENDENT AUDITOR'S REPORT

## To the Board of Directors and Stockholders of Spectra Systems Corporation

### Opinion

We have audited the accompanying consolidated financial statements of Spectra Systems Corporation and subsidiary, which comprise the consolidated balance sheets as of December 31, 2021 and 2020, and the consolidated related statements of income and other comprehensive income, stockholders' equity, and cash flows for the years then ended, and the related notes to the financial statements.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Spectra Systems Corporation as of December 31, 2021 and 2020, and the results of their operations and their cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

### Basis for Opinion

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of Spectra Systems Corporation and to meet our other ethical responsibilities in accordance with the relevant ethical requirements relating to our audits. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about Spectra Systems Corporation's ability to continue as a going concern within one year after the date that the consolidated financial statements are available to be issued.

### Auditor's Responsibility

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with generally accepted auditing standards will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements, including omissions, are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the consolidated financial statements.

In performing an audit in accordance with generally accepted auditing standards, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of Spectra System Corporation's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the consolidated financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about Spectra Systems Corporation's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control related matters that we identified during the audit.

**Miller Wachman LLP**
Boston, Massachusetts
March 18, 2022

# CONSOLIDATED BALANCE SHEETS

## December 31, 2021 and 2020

| | 2021 | 2020 |
|---|---|---|
| **Assets** | | |
| **Current assets** | | |
| Cash and cash equivalents | $ 16,775,096 | $ 14,038,295 |
| Accounts receivable, net of allowance for doubtful accounts of US$7,000 in both 2021 and 2020 | 2,241,867 | 2,587,333 |
| Unbilled and other receivables | 629,813 | 476,424 |
| Inventory | 1,944,003 | 2,793,954 |
| Prepaid expenses | 298,603 | 273,749 |
| **Total current assets** | 21,889,382 | 20,169,755 |
| **Property, plant and equipment, net** | 1,439,166 | 1,725,575 |
| **Operating lease right-of-use asset, net** | 971,649 | 1,181,095 |
| **Other assets** | | |
| Intangible assets, net | 7,160,819 | 7,200,153 |
| Restricted cash and investments | 500,000 | 1,099,021 |
| Deferred tax assets | 1,080,000 | 1,400,000 |
| Other assets | 111,301 | 124,462 |
| **Total other assets** | 8,852,120 | 9,823,636 |
| **Total assets** | $ 33,152,317 | $ 32,900,061 |
| **Liabilities and stockholders' equity** | | |
| **Current liabilities** | | |
| Accounts payable | $ 489,526 | $ 533,547 |
| Accrued expenses and other liabilities | 511,774 | 478,541 |
| Operating lease liabilities | 285,988 | 269,618 |
| Taxes payable | 261,639 | 222,770 |
| Deferred revenue | 2,184,564 | 1,665,511 |
| **Total current liabilities** | 3,733,491 | 3,169,987 |
| **Non-current liabilities** | | |
| Operating lease liabilities | 739,504 | 956,159 |
| Deferred revenue | 757,749 | 551,892 |
| **Total non-current liabilities** | 1,497,253 | 1,508,051 |
| **Total liabilities** | 5,230,744 | 4,678,038 |
| **Commitments and contingencies (note K)** | | |
| **Stockholders' equity** | | |
| Common stock, US$0.01 par value, 125,000,000 shares authorized at December 31, 2021 and 2020; 45,303,644 and 45,554,724 shares issued and outstanding at December 31, 2021 and 2020, respectively | 453,036 | 455,547 |
| Additional paid-in capital – common stock | 53,833,233 | 54,892,193 |
| Accumulated other comprehensive loss | (136,881) | (135,031) |
| Accumulated deficit | (26,870,037) | (27,730,611) |
| **Total Spectra Systems Corporation stockholders' equity** | 27,279,351 | 27,482,098 |
| Noncontrolling interest | 642,222 | 739,925 |
| **Total stockholders' equity** | 27,921,573 | 28,222,023 |
| **Total liabilities and equity** | $ 33,152,317 | $ 32,900,061 |

The accompanying notes are an integral part of these financial statements.

## CONSOLIDATED STATEMENTS OF INCOME

### for the years ended December 31, 2021 and 2020

| | 2021 | 2020 |
|---|---|---|
| **Revenues** | | |
| Product | $ 9,281,096 | $ 9,692,033 |
| Service | 5,524,318 | 3,230,224 |
| License and royalty | 1,786,910 | 1,752,902 |
| **Total revenues** | 16,592,324 | 14,675,159 |
| **Cost of sales** | 6,069,519 | 4,606,391 |
| **Gross profit** | 10,522,805 | 10,068,768 |
| **Operating expenses** | | |
| Research and development | 1,398,729 | 1,604,313 |
| General and administrative | 2,742,634 | 2,627,053 |
| Sales and marketing | 471,441 | 509,085 |
| **Total operating expenses** | 4,612,804 | 4,740,451 |
| **Income from operations** | 5,910,001 | 5,328,317 |
| **Other income (expense)** | | |
| Interest income | 40,136 | 114,628 |
| Loss on sale of equipment | (18,804) | — |
| Foreign currency income (loss) | 11,794 | (15,851) |
| **Total other income, net** | 33,126 | 98,777 |
| **Income before provision for income taxes** | 5,943,127 | 5,427,094 |
| **Income tax expense** | 878,000 | 304,000 |
| **Net income** | 5,065,127 | 5,123,094 |
| Net loss attributable to noncontrolling interest | (97,703) | (1,035) |
| **Net income attributable to Spectra Systems Corporation** | $ 5,162,830 | $ 5,124,129 |
| **Earnings per share** | | |
| Basic | $ 0.11 | $ 0.11 |
| Diluted | $ 0.11 | $ 0.11 |
| **Weighted average number of common shares** | | |
| Basic | 45,353,550 | 45,599,014 |
| Diluted | 47,739,030 | 48,366,119 |

The accompanying notes are an integral part of these financial statements.

# CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

## for the years ended December 31, 2021 and 2020

| | 2021 | 2020 |
|---|---|---|
| **Net income** | **$ 5,065,127** | $ 5,123,094 |
| **Other comprehensive income (loss)** | | |
| Unrealized gain (loss) on currency exchange | **9,944** | (31,744) |
| Reclassification for realized (gain) loss in net income | **(11,794)** | 15,851 |
| **Total other comprehensive loss** | **(1,850)** | (15,893) |
| **Comprehensive income** | **5,063,277** | 5,107,201 |
| Net loss attributable to noncontrolling interest | **(97,703)** | (1,035) |
| **Comprehensive income attributable to Spectra Systems Corporation** | **$ 5,160,980** | $ 5,108,236 |

The accompanying notes are an integral part of these financial statements.

# CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

## for the years ended December 31, 2021 and 2020

| | Common stock | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Shares | Amount | Additional paid-in capital | Treasury stock | Accumulated deficit | Accumulated other comprehensive loss | Noncontrolling interest | Total stockholders' equity |
| **Balance at December 31, 2019** | **45,897,631** | **$ 458,986** | **$ 55,504,891** | **$ (1,690)** | **$ (28,732,053)** | **$ (119,138)** | **$ —** | **$ 27,110,996** |
| Compensation cost related to amortization of stock options | — | — | 59,523 | — | — | — | — | 59,523 |
| Reclassification for realized loss in net income | — | — | — | — | — | 15,851 | — | 15,851 |
| Unrealized loss on currency exchange | — | — | — | — | — | (31,744) | — | (31,744) |
| Exercise of stock options | 175,841 | 1,758 | 10,343 | — | — | — | — | 12,101 |
| Repurchase and retirement of shares | (645,000) | (6,460) | (987,243) | 1,690 | — | — | — | (992,013) |
| Investment in Solaris BioSciences | 126,252 | 1,263 | 304,679 | — | — | — | 740,960 | 1,046,902 |
| Dividends paid | — | — | — | — | (4,122,687) | — | — | (4,122,687) |
| Net income (loss) | — | — | — | — | 5,124,129 | — | (1,035) | 5,123,094 |
| **Balance at December 31, 2020** | **45,554,724** | **$ 455,547** | **$ 54,892,193** | **$ —** | **$ (27,730,611)** | **$ (135,031)** | **$ 739,925** | **$ 28,222,023** |
| Compensation cost related to amortization of stock options | — | — | 70,896 | — | — | — | — | 70,896 |
| Reclassification for realized gain in net income | — | — | — | — | — | (11,794) | — | (11,794) |
| Unrealized gain on currency exchange | — | — | — | — | — | 9,944 | — | 9,944 |
| Exercise of stock options | 248,920 | 2,489 | 35,251 | — | — | — | — | 37,740 |
| Repurchase and retirement of shares | (500,000) | (5,000) | (1,165,107) | — | — | — | — | (1,170,107) |
| Dividends paid | — | — | — | — | (4,302,256) | — | — | (4,302,256) |
| Net income (loss) | — | — | — | — | 5,162,830 | — | (97,703) | 5,065,127 |
| **Balance at December 31, 2021** | **45,303,644** | **$ 453,036** | **$ 53,833,233** | **$ —** | **$ (26,870,037)** | **$ (136,881)** | **$ 642,222** | **$ 27,921,573** |

The accompanying notes are an integral part of these financial statements.

## CONSOLIDATED STATEMENTS OF CASH FLOWS

for the years ended December 31, 2021 and 2020

| | | 2021 | | 2020 |
|---|---|---|---|---|
| **Cash flows from operating activities** | | | | |
| Net income | $ | 5,065,127 | $ | 5,123,094 |
| Adjustments to reconcile net income to net cash provided by operating activities: | | | | |
| Depreciation and amortization | | 831,021 | | 967,801 |
| Stock-based compensation expense | | 70,896 | | 59,523 |
| Lease amortization expense | | 274,192 | | 264,585 |
| Deferred taxes | | 320,000 | | – |
| Allowance for doubtful accounts | | – | | 1,202 |
| Provision for excess and obsolete inventory | | 493,739 | | – |
| Loss on sale of equipment | | 18,804 | | – |
| Changes in operating assets and liabilities: | | | | |
| Accounts receivable | | 346,160 | | (1,089,914) |
| Unbilled and other receivable | | (153,384) | | (81,713) |
| Inventory | | 356,212 | | 287,022 |
| Prepaid expenses | | (24,717) | | (83,843) |
| Other assets | | – | | (149) |
| Accounts payable | | (44,493) | | 121,726 |
| Operating leases | | (265,028) | | (252,303) |
| Accrued expenses and other liabilities | | 71,445 | | (74,043) |
| Deferred revenue | | 724,406 | | 330,588 |
| **Net cash provided by operating activities** | | 8,084,380 | | 5,573,576 |
| **Cash flows from investing activities** | | | | |
| Restricted cash and investments | | 599,021 | | 245,447 |
| Contribution from noncontrolling interest | | – | | 2,165 |
| Payment of patent and trademark costs | | (470,994) | | (459,279) |
| Proceeds from sale of equipment | | 36,500 | | – |
| Purchases of property, plant and equipment | | (76,105) | | (457,767) |
| **Net cash provided by (used in) investing activities** | | 88,422 | | (669,434) |
| **Cash flows from financing activities** | | | | |
| Dividends paid | | (4,302,256) | | (4,122,687) |
| Repurchase of shares | | (1,170,107) | | (992,013) |
| Proceeds from exercise of stock options | | 37,740 | | 12,101 |
| **Net cash used in financing activities** | | (5,434,623) | | (5,102,599) |
| Effect of exchange rate on cash and cash equivalents | | (1,378) | | (13,601) |
| **Net increase (decrease) in cash and cash equivalents** | | 2,736,801 | | (212,058) |
| **Cash and cash equivalents, beginning of the year** | | 14,038,295 | | 14,250,353 |
| **Cash and cash equivalents, end of the year** | $ | 16,775,096 | $ | 14,038,295 |
| **Supplemental disclosures of cash flow information** | | | | |
| Income taxes paid | $ | 526,550 | $ | 283,241 |
| **Non-cash investing activities** | | | | |
| Acquisition of patents included in accounts payable | $ | 66,041 | $ | 220,770 |
| Equity issued for investment in Solaris BioSciences | $ | – | $ | 305,942 |

The accompanying notes are an integral part of these financial statements.

# NOTES TO THE FINANCIAL INFORMATION

## for the years ended December 31, 2021 and 2020

## 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 and cleaning, branded products, industrial logistics and other highly sensitive documents. The Company also provides software tools to the lottery and gaming industries for fraud, money laundering and match fixing detection, as well as statistical analysis.

The Company was incorporated on July 3, 1996 in Delaware as Spectra Acquisition Corp. On August 26, 1996, the Company purchased substantially all of the assets of SSC Science Corporation and changed its name to Spectra Science Corporation. The assets were purchased for US$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 US$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 £0.753 per new common share, 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

### Basis of presentation and consolidation

The Company has prepared the accompanying consolidated financial statements in conformity with accounting principles generally accepted in the United States of America (US GAAP). The consolidated financial statements include the accounts of the Company, any wholly owned subsidiaries and variable interest entities (VIE) in which the Company is the primary beneficiary and entities in which the Company has a controlling interest. All material intercompany transactions and accounts are eliminated on consolidation.

### Use of estimates

The preparation of financial statements in conformity with US GAAP requires management to make estimates and judgments that affect the amounts reported in the financial statements and accompanying notes. The accounting estimates that require management's most difficult and subjective judgments include the assessment of recoverability of property, plant and equipment; the valuation of inventory; intangible assets; revenue recognition; stock-based compensation; and the recognition and measurement of income tax assets and liabilities. The actual results 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 the date of acquisition to be cash equivalents.

### Restricted cash and investments

Restricted cash and investments represent a certificate of deposit held as collateral for certain performance requirements in accordance with terms of a services contract. As of both December 31, 2021 and 2020, a service contract required that US$500,000 be maintained as collateral for contract performance. As of December 31, 2021 and 2020, the Company collateralized the service contract with a certificate of deposit of US$500,000 and US$1,099,021, respectively, whose maturity exceeded 90 days at the date of acquisition.

### Significant concentrations

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 and investments, including restricted, on deposit with financial institutions which are insured by either the Federal Deposit Insurance Corporation up to US$250,000 per institution or the Canadian Deposit Insurance Corporation up to 100,000 Canadian Dollars per institution. The Company also maintains cash on hand which is not subject to insurance. As of December 31, 2021, the amount of cash and investments, including restricted, not insured was US$16,546,367.

Concentrations of credit risk with respect to trade accounts receivable are limited due to the concentration of business with government entities. The Company's management attempts to minimize credit risk on its accounts receivable by monitoring credit exposure on a regular basis.

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 as of:

| | December 31, | |
|---|---|---|
| | **2021** | 2020 |
| Number of significant customers | **3** | 2 |
| Percentage of total receivables | **75%** | 74% |

## Note B – Significant accounting policies continued

### Significant concentrations continued

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 for the years ended:

| | December 31, 2021 | December 31, 2020 |
|---|---|---|
| Number of significant customers | **3** | 2 |
| Percentage of total revenue | **70%** | 63% |

The following table summarizes the geographic concentration of revenue for the years ended:

| | December 31, 2021 | December 31, 2020 |
|---|---|---|
| United States of America | **$ 13,015,938** | $ 10,615,694 |
| Europe | **3,360,432** | 3,588,121 |
| Rest of World | **215,954** | 471,344 |
| | **$ 16,592,324** | $ 14,675,159 |

### Accounts receivable

Accounts receivable are stated at the amount management expects to collect from outstanding customer accounts. Management provides for uncollectible accounts through a provision for bad debt expense. As of both December 31, 2021 and 2020, the Company had a US$7,000 allowance for doubtful accounts.

### Fair value of financial instruments

As of both December 31, 2021 and 2020, 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 due to their short-term nature.

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.

As December 31, 2021 and 2020, the Company has certificates of deposit of US$500,000 and US$1,099,021, respectively, which are included in restricted cash and investments. The Company considers this certificate of deposit as a Level 2 investment.

### Foreign currency translation

The functional currency of the Company's foreign operations is the applicable local currency, the Canadian Dollar. The functional currency is translated into US Dollars for balance sheet accounts using currency exchange rates in effect as of the balance sheet date and for revenue and expense accounts using an average exchange rate in effect during the applicable period. The translation adjustments are deferred as a separate component of stockholders' equity in accumulated other comprehensive loss.

### Inventory

Inventories are stated at the lower of cost or net realizable value. Cost is determined using the first-in, first-out method. The Company regularly reviews inventory quantities on hand and records a provision to write down excess and obsolete inventory to its estimated net realizable value if less than cost. Inventory includes finished goods, raw materials, labor and overhead.

## Note B – Significant accounting policies continued

### Intangible assets

Goodwill represents the excess of purchase price over the fair value of the net assets acquired. Goodwill is not amortized, but is subject to at least an annual assessment for impairment or whenever events or circumstances indicate that it might be impaired. There was no change to goodwill during the year ended December 31, 2021.

Other intangible assets consist of patents, trademarks and various intangible assets identified as part of a business combination such as contracts, customer relationships and technology. Patents and trademarks are recorded at cost. For intangible assets identified as part of a business combination, values are assigned using various valuation techniques, including the present value of expected future cash flows. Intangible assets are amortized using the straight-line method over their estimated useful lives ranging from seven to 15 years. The Company evaluates the possible impairment of its intangible assets annually or whenever events or circumstances indicate the carrying value of the assets may not be recoverable.

### Property and equipment

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

| | |
|---|---|
| Laboratory equipment | 3–10 years |
| Computer and office equipment | 3–5 years |
| Furniture and fixtures | 7 years |
| Leasehold improvements | Shorter of lease term or estimated useful life |
| Software | 3–7 years |
| Manufacturing equipment | 3–7 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 net income.

### Leases

The Company determines if an arrangement is a lease at inception. Operating leases are included in operating lease right-of-use (ROU) assets and operating lease liabilities in our consolidated balance sheets. ROU assets represent the right to use an underlying asset for the lease term and lease liabilities represent the obligation to make lease payments arising from the lease. Operating lease ROU assets and liabilities are recognized at the commencement date of the lease based on the present value of lease payments over the lease term. Certain real estate leases include one or more options to renew, with renewal terms that can extend the lease term for up to five years. The exercise of lease renewal options are at the Company's sole discretion. When deemed reasonably certain of exercise, the renewal options are included in the determination of the lease term and lease payment obligation, respectively. When readily determinable, the Company uses the rate implicit in the lease contract in determining the present value of lease payments. If the implicit rate is not provided, the Company uses its incremental borrowing rate based on information available at the lease commencement date, including the lease term. The operating lease ROU asset also includes any lease payments made and excludes lease incentives. Lease expense for lease payments is recognized on a straight-line basis over the lease term. The Company has lease agreements with lease and non-lease components and has elected to account for the lease and non-lease components as a single lease component.

### Investment in affiliates and other entities

During the course of business, the Company enters into various types of investment arrangements. The Company determines whether such investments involve a VIE. If the entity is determined to be a VIE, then management determines if the Company is the primary beneficiary of the entity and whether or not consolidation of the VIE is required. The primary beneficiary consolidating the VIE must normally have both (i) the power to direct the activities of a VIE that most significantly affect the VIE's economic performance and (ii) the obligation to absorb losses of the VIE or the right to receive benefits from the VIE, in either case that could potentially be significant to the VIE. When the Company is deemed to be the primary beneficiary, the VIE is consolidated and the other party's equity interest in the VIE is accounted for as a noncontrolling interest.

On December 10, 2020, the Company invested US$702,000 in Solaris BioSciences (Solaris) and increased its equity interest from 4.79% to 48.65% on an as-converted basis. The Company has concluded that Solaris is a VIE and the Company is the primary beneficiary. The Company has consolidated the accounts of Solaris as of December 10, 2020.

## Note B – Significant accounting policies continued

### Investment in affiliates and other entities continued

The aggregate carrying value of Solaris' assets and liabilities after elimination of any intercompany transactions and balances in the consolidated balance sheets consists as follows:

| | December 31, 2021 | December 31, 2020 |
|---|---|---|
| Assets | | |
| Cash | **$ 149,629** | $ 257,212 |
| Property, plant and equipment, net | **7,256** | — |
| Intangible assets, net | **39,719** | — |
| Total assets | **196,604** | 257,212 |
| Liabilities | | |
| Accounts payable | **21,109** | 15,411 |
| Accruals | **—** | 7,600 |
| Total liabilities | **$ 21,109** | $ 23,011 |

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, 2021, the Company held a 19% ownership in an affiliate, SpectraMed. As SpectraMed had significant losses in prior years, the Company had previously reduced its investments in SpectraMed to US$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 using the straight-line attribution method. The Company recognizes the effects of forfeitures in compensation cost when they occur.

### Revenue recognition

#### *General*

On January 1, 2018, the Company adopted ASC 606 "Revenue from Contracts with Customers" (ASC 606).

The Company's sources of revenues are as follows:

- Product revenue includes sales of pigments and security taggants and sales of equipment
- Service revenue includes:
  - Secure Transactions software licensing and support as well as development services to customize our software to meet specific customer needs
  - Maintenance and repair services related to manufactured equipment
  - Research and development services
- License and royalty for the use of the Company's know-how and technology

Revenue is recognized when control of the promised goods or services is transferred to customers, in an amount that reflects the consideration expected to be entitled to in exchange for those goods or services. This condition normally is met when the product has been delivered or upon performance of services.

When contracts with customers include multiple performance obligations, significant judgment is involved in determining whether each performance obligation is distinct or should be combined with other performance obligations within the contract. In addition, the transaction price is allocated to each distinct performance obligation using an estimate of stand-alone selling price. Estimating the stand-alone selling price requires significant judgment and is generally based on observable prices or a cost plus margin approach.

Product revenue is generally recognized upon transfer of control of the product at a point in time upon delivery of the product to the customer pursuant to the terms of the contract.

Revenues for maintenance and repairs and research and development services are generally recognized over time as the services are performed. Revenues for fixed-price services are generally recognized over time applying input methods to estimate progress to completion.

Generally, our software contracts contain multiple promised goods and services, including the following: (i) term software license; (ii) installation and training; (iii) unspecified future enhancements; (iv) maintenance and support; and (v) optional professional services in the future. The term software license, installation and unspecified future enhancements are considered one performance obligation as the software is dependent on the installation and the enhancements are critical to the utility of the software. As the enhancements are delivered over time, revenue is recognized ratably over the term of the contract. Maintenance and support services are provided over the term of the contract and revenue is recognized over time based on the term of the contact. Future professional services, if any, are recognized over time based on hours incurred.

## NOTES TO THE FINANCIAL INFORMATION continued

for the years ended December 31, 2021 and 2020

### Note B – Significant accounting policies continued

**Revenue recognition** continued

***General*** continued

During 2018, the Company executed both a supply agreement and a technology license agreement with an existing customer to continue supplying an existing product and extend the rights to the underlying technology in perpetuity. The customer will pay reduced rates for the product but will pay approximately US$10,500,000 in eleven payments over five years for the technology license. The extended payment terms were negotiated by the customer to ensure supply of product and therefore do not represent a significant financing component. The Company has combined the contracts as per the guidance in ASC 606 as both contracts were negotiated at the same time. The Company has identified two performance obligations: (i) the option to purchase product; and (ii) the technology and stand-ready obligation as the customer is required to pay the US$10,500,000 regardless of whether or not they purchase product and the technology cannot be used by the customer unless the Company defaults on its obligations within the agreements. The Company allocated approximately US$1,800,000 to the option to purchase product based on observable stand-alone selling prices and will recognize this revenue at each point in time as product is delivered. The Company allocated approximately US$8,700,000 to the technology and stand-ready obligation based on the residual approach and will recognize this revenue over time as royalty revenue, ratably over five years.

During 2021, the Company initiated work on contracts with a central bank to develop new sensors for the authentication of its banknotes. The Company has combined the contracts as per the guidance in ASC 606 as the contracts and consideration were negotiated as a package and there is a single performance obligation; prototype sensors. Revenue is recognized over time as the prototype sensors do not have an alternate use due to their specialized nature. Revenue is recognized on a percentage of completion basis using costs incurred to date relative to total estimated costs at completion to measure progress. Interim milestone payments are received as work progresses.

Revenue is reported net of incentive rebates and discounts.

The following table summarizes the type of revenue for the years ended:

| | December 31, 2021 | December 31, 2020 |
|---|---|---|
| Product | **$ 9,281,096** | $ 9,692,033 |
| Maintenance, repair and research and development services | **3,649,688** | 1,806,583 |
| License and royalty | **1,786,910** | 1,752,902 |
| Total Authentication Systems revenue | **14,717,694** | 13,251,518 |
| Secure Transactions revenue | **1,874,630** | 1,423,641 |
| | **$ 16,592,324** | $ 14,675,159 |

Credit terms are predominately short-term in nature. As such, there is not a significant financing component within the customer contracts.

**Contract balances and other disclosures**

Timing of revenue recognition may differ from the timing of invoicing to customers. The Company records an unbilled receivable when revenue is recognized prior to invoicing and a contract liability (deferred revenue) when cash payments are received or due in advance of performance. Software customers typically pay an upfront license fee and equipment maintenance contracts are typically billed annually in advance. Deferred revenue expected to be realized within one year is classified as a current liability. The following table summarizes the activity in our contract liabilities for the reporting period and the ending balance by operating segment:

| | December 31, 2021 | December 31, 2020 |
|---|---|---|
| Balance, beginning of year | **$ 2,217,403** | $ 1,884,870 |
| Currency translation | **504** | 1,945 |
| Deferral of revenue | **4,873,690** | 5,673,530 |
| Revenue recognized | **(4,149,284)** | (5,342,942) |
| Balance, end of year | **$ 2,942,313** | $ 2,217,403 |
| | | |
| Authentication Systems | **1,767,055** | 1,059,171 |
| Secure Transactions | **1,175,258** | 1,158,232 |
| | **$ 2,942,313** | $ 2,217,403 |

As of December 31, 2021, there was an unbilled receivable of approximately US$464,000 within unbilled and other receivables on the balance sheet which will be invoiced in 2022. As of December 31, 2020, there was an unbilled receivable of approximately US$316,000 within unbilled and other receivables on the balance sheet which was invoiced in 2021.

## Note B – Significant accounting policies continued

### Contract balances and other disclosures continued

Revenue allocated to remaining performance obligations represents contracted revenue that has not yet been recognized ("contracted not recognized revenue"), which includes unearned revenue and amounts that will be invoiced and recognized as revenue in future periods. Contracted not recognized revenue was US$20,062,992 as of December 31, 2021, of which we expect to recognize approximately 41% of the revenue over the next twelve months, 29% over the following twelve months and the remaining 30% thereafter. This percentage depends on our estimate of future work performed which cannot be predicted with certainty.

### Warranties

If a warranty is applicable, a warranty liability is recorded at the time of sale. The warranty liability is estimated by assessing historical experience to the current applicable population. Warranty costs may differ from those estimated if actual claim rates are higher or lower than our historical rates.

### Research and development

Internal research and development costs are expensed as incurred. Certain third party research and development costs are capitalized in connection with contracted work. These costs are expensed as certain milestones are achieved. Overhead, general and administrative and training costs are expensed as incurred.

Costs incurred internally in researching and developing a computer software product to be sold to customers are charged to expense until technological feasibility has been established for the product. Once technological feasibility is established, software costs are capitalized until the product is available for general release to customers. Judgment is required in determining when technological feasibility of a product is established. The amortization of these capitalized software costs is included in cost of revenue over the estimated life of the products which is estimated to be ten years.

### 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. For 2021 and 2020, there are estimated state tax liabilities of US$262,000 and US$223,000 respectively and no federal income tax liability on those respective income tax returns.

### Advertising costs

Advertising costs are charged to expense when incurred. Advertising expense was US$nil for both 2021 and 2020.

### Shipping and handling

The Company reports the cost of shipping and handling as an operating expense. Shipping and handling expense was US$110,451 and US$110,771 for 2021 and 2020, respectively.

### Recent accounting guidance

In March 2020, the FASB issued authoritative guidance, Facilitation of the Effects of Reference Rate Reform on Financial Reporting. The new guidance provides optional expedients and exceptions for applying generally accepted accounting principles to contract modifications and hedging relationships, subject to meeting certain criteria, that reference LIBOR or another reference rate expected to be discontinued. The guidance also establishes (i) a general contract modification principle that entities can apply in other areas that may be affected by reference rate reform and (ii) certain elective hedge accounting expedients. The amendment is effective for all entities through December 15, 2022. The Company does not expect the adoption of the guidance to have an impact on its consolidated financial statement disclosures, results of operations and financial position.

In October 2021, the FASB issued ASU No. 2021-08, Business Combinations (Topic 805): Accounting for Contract Assets and Contract Liabilities from Contracts with Customers. This ASU requires acquiring entities to apply Topic 606 to recognize and measure contract assets and contract liabilities in a business combination. This guidance is effective for public entities for fiscal years beginning after December 15, 2022, including interim periods within those fiscal years. The impact of adopting this guidance on our consolidated financial statements will depend on business combinations occurring on or after the effective date.

## Note C – Related party transactions

On September 30, 2015, the Company purchased certain assets from Solaris in exchange for US$213,917 in cash. The agreement required the Company to pay Solaris 10% of any revenues hereafter received by the Company from the commercial exploitation of the assets. The Chief Executive Officer of Solaris is also the Chief Executive Officer of Spectra. No royalty payments were made during the years ended December 31, 2021 and 2020.

On December 10, 2020, the Company invested US$702,000 in Solaris and increased its equity interest from 4.79% to 48.65% on an as-converted basis. Prior to the investment, the Chief Executive Officer of Spectra owned 84.54% of Solaris which declined to 46.01% after the transaction. As part of the transaction, the Company was to provide US$100,000 of services at cost to Solaris. These services were fully provided in 2021. In addition, the Company provides nominal accounting support to Solaris and allows Solaris use of optical table space and facilities at Spectra. In accordance with Delaware law, the transaction was (i) unanimously approved by all three of Spectra's Non-executive Directors and (ii) specially approved by a majority-in-interest of the disinterested stockholders of Solaris. In addition, going forward Spectra's shares in Solaris will be voted as directed by Spectra's Non-executive Directors.

## NOTES TO THE FINANCIAL INFORMATION continued

for the years ended December 31, 2021 and 2020

### Note D – Inventories

Inventories consist of the following:

| | December 31, 2021 | 2020 |
|---|---|---|
| Raw materials | $ 1,705,151 | $ 1,854,062 |
| Work in process | — | 9,506 |
| Finished goods | 988,852 | 1,186,647 |
| Total | 2,694,003 | 3,050,215 |
| Less: reserve for excess and obsolete inventory | (750,000) | (256,261) |
| | $ 1,944,003 | $ 2,793,954 |

### Note E – Property and equipment

Property and equipment consists of the following:

| | December 31, 2021 | 2020 |
|---|---|---|
| Laboratory equipment | $ 1,386,396 | $ 1,129,420 |
| Computer and office equipment | 311,099 | 362,209 |
| Furniture and fixtures | 114,354 | 114,354 |
| Leasehold improvements | 1,546,714 | 1,533,871 |
| Software | 411,651 | 342,466 |
| Manufacturing equipment | 1,427,756 | 1,708,619 |
| Total | 5,197,970 | 5,190,939 |
| Less: accumulated depreciation | (3,758,804) | (3,465,364) |
| | $ 1,439,166 | $ 1,725,575 |

Depreciation expense amounted to US$307,468 and US$416,849 for the years ended December 31, 2021 and 2020, respectively.

### Note F – Leases

The Company holds four real estate leases. During 2018, the Company signed a lease agreement for corporate office space which expires in October 2023. The Company extended its lease agreement for manufacturing and warehouse space in East Providence through October 2022. To support the Secure Transactions Group, the Company signed a lease which has been extended through January 2025. The Company's lease for laboratory space in East Providence has been extended through May 31, 2023. Certain real estate leases include one or more options to renew, with renewal terms that can extend the lease term for up to five years. Operating lease costs were US$400,854 and US$390,965 for the years ended December 31, 2021 and 2020, respectively.

Future minimum lease payments are as follows:

| Year ending December 31, | |
|---|---|
| 2022 | $ 310,011 |
| 2023 | 128,832 |
| 2024 | 23,540 |
| 2025 | 1,962 |
| | $ 464,345 |

Supplemental information related to leases are as follows:

| | December 31, 2021 |
|---|---|
| Weighted average remaining lease term | 1.7 years |
| Weighted average discount rate | 4.4% |

## Note G – Intangible assets

Intangible assets consist of the following:

| | December 31, 2021 | December 31, 2020 |
|---|---|---|
| Patents | **$ 4,809,167** | $ 4,369,483 |
| Customer relationships | **3,043,000** | 3,043,000 |
| Non-compete agreements | **188,440** | 188,440 |
| Developed technology | **1,502,000** | 1,502,000 |
| Tradename | **30,000** | 30,000 |
| Trademarks | **188,577** | 157,267 |
| Goodwill | **3,040,607** | 3,040,607 |
| Total | **12,801,791** | 12,330,797 |
| Less: accumulated amortization | **(5,640,972)** | (5,130,644) |
| | **$ 7,160,819** | $ 7,200,153 |

Amortization expense amounted to US$510,328 and US$537,727 for the years ended December 31, 2021 and 2020, respectively.

Estimated amortization expense is as follows:

| | Year ending December 31, |
|---|---|
| 2022 | $ 495,597 |
| 2023 | 490,557 |
| 2024 | 429,709 |
| 2025 | 417,208 |
| 2026 | 334,459 |
| Thereafter | 1,952,682 |
| | $ 4,120,212 |

Goodwill by operating segment is as follows:

| | December 31, 2021 | December 31, 2020 |
|---|---|---|
| Authentication Systems | **$ 1,763,661** | $ 1,763,661 |
| Secure Transactions | **1,276,946** | 1,276,946 |
| | **$ 3,040,607** | $ 3,040,607 |

## Note H – Other assets

Other assets consist of the following:

| | December 31, 2021 | December 31, 2020 |
|---|---|---|
| Rental deposits | **$ 18,726** | $ 18,662 |
| Capitalized software costs, net | **92,575** | 105,800 |
| | **$ 111,301** | $ 124,462 |

Amortization expense of capitalized software costs amounted to US$13,225 for both of the years ended December 31, 2021 and 2020.

## NOTES TO THE FINANCIAL INFORMATION continued

### for the years ended December 31, 2021 and 2020

### Note I – Accrued expenses and other liabilities

Accrued expenses and other liabilities consist of the following:

| | December 31, 2021 | December 31, 2020 |
|---|---|---|
| Employee compensation | **$ 299,221** | $ 296,162 |
| Sales allowance and rebates | **38,371** | 20,945 |
| Professional fees | **87,000** | 86,000 |
| Property and franchise taxes | **10,904** | 10,362 |
| Other | **76,278** | 65,072 |
| | **$ 511,774** | $ 478,541 |

### Note J – Income taxes

The approximate components of the income tax provision are as follows:

| | December 31, 2021 | December 31, 2020 |
|---|---|---|
| Income tax provision (benefit) computed at: | | |
| Federal statutory rate – current | **$ 1,478,000** | $ 1,156,000 |
| State statutory rate – current | **492,000** | 385,000 |
| Federal deferred | **(215,000)** | (66,000) |
| State deferred | **(71,000)** | (22,000) |
| Change in valuation allowance | **(806,000)** | (1,149,000) |
| Income tax expense | **$ 878,000** | $ 304,000 |

A reconciliation of the statutory federal income tax rate with our effective income tax rate was as follows:

| | December 31, 2021 | December 31, 2020 |
|---|---|---|
| Statutory federal rate | **21.0%** | 21.0% |
| State income taxes, net of income tax benefit | **6.9%** | 5.5% |
| Non-deductible expenses and other | **59.1%** | 28.8% |
| Change in valuation allowance | **(72.2)%** | (49.7)% |
| Effective tax rate | **14.8%** | 5.6% |

Approximate deferred income tax assets are as follows:

| | December 31, 2021 | December 31, 2020 |
|---|---|---|
| Depreciation and amortization | **$ (329,000)** | $ (340,000) |
| Deferred revenue | **295,000** | 92,000 |
| Federal tax credits | **870,000** | 892,000 |
| Inventory | **182,000** | 71,000 |
| Bad debts | **2,000** | 2,000 |
| Net operating loss carryforward | **370,000** | 1,799,000 |
| Valuation allowance | **(310,000)** | (1,116,000) |
| Total deferred income tax assets | **$ 1,080,000** | $ 1,400,000 |

As of December 31, 2021, the Company has net operating loss carryforwards expiring between 2022 and 2036 for US federal income tax purposes of approximately US$1,800,000. A valuation allowance has been established for US$310,000 and US$1,116,000 as of December 31, 2021 and 2020, respectively, for the deferred tax benefit related to those loss carryforwards and other deferred tax assets.

At December 31, 2021, the Company also had approximately US$870,000 of tax credit carryforwards that are available to offset federal liabilities. The credits will begin to expire between 2022 and 2031 for federal tax purposes.

## Note J – Income taxes continued

The utilization of the tax carryforwards 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.

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.

## Note K – Commitments and contingencies

The Company is involved from time to time in litigation incidental to the conduct of its business. The Company is not currently a party to any lawsuit or proceeding.

### Supply agreements

As of December 31, 2021, the Company had commitments to purchase approximately US$1,228,000 of materials and services during 2022.

### Employment contracts

The Company has made contractual commitments to certain employees providing for severance payments, including salary continuation, upon the termination of employment by the Company without substantial cause or by the employee for good reason. The contracts also generally provide for certain protections in the event of a change in control of the Company. These protections include the payment of certain severance benefits, such as salary continuation, upon the termination of employment following a change in control.

## Note L – Stockholders' equity

### Common and preferred stock

On July 25, 2011, the Company raised US$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 £0.753 per new common share, 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. At December 31, 2021 there were 45,303,644 common shares outstanding and no preferred shares in issue.

### Share repurchases

On April 9, 2019, the Board of Directors approved, for an extendable period of twelve months therefrom, a share buy-back authority in respect of up to 4,500,000 common shares of the Company. The Board has extended this share buy-back authority through March 31, 2022. All shares repurchased are retired and restored to authorized and unissued shares. The Company repurchased 500,000 shares at a total cost of US$1,170,107 and 645,000 shares at a total cost of US$992,013 during the years ended December 31, 2021 and 2020, respectively. As of December 31, 2021, a total of 1,146,000 shares have been repurchased under the share buy-back authority.

### Dividends

The Board of Directors declared the following dividends:

| Declaration date | Record date | Payment date | Dividend per share | Amount |
|---|---|---|---|---|
| March 22, 2021 | June 4, 2021 | June 25, 2021 | $ 0.095 | $ 4,302,256 |
| March 23, 2020 | June 5, 2020 | June 26, 2020 | $ 0.09 | $ 4,122,687 |

### Stock option plan

In May 2007, the Company adopted the 2007 Stock Plan (the "2007 Plan"), which provided for the grant of incentive stock options and nonqualified 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 (ISO) 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 ISOs granted to holders of more than 10% of the Company's voting stock). As the 2007 Plan is over ten years old, tax regulations prevent the issuance of further ISOs. Nonqualified 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. Stock options generally vest over three years and are exercisable over a period up to ten years from the date of grant. As of December 31, 2021, options to purchase 3,012,667 shares of common stock were outstanding and 1,072,022 shares of common stock have been issued under the 2007 Plan. As of December 31, 2021, 10,015,311 shares of common stock were available for grant under the 2007 Plan.

## NOTES TO THE FINANCIAL INFORMATION continued

### for the years ended December 31, 2021 and 2020

### Note L – Stockholders' equity continued

**Stock option plan** continued

Information related to stock options granted by the Company is summarized as follows:

| | December 31, 2021 | | | December 31, 2020 | | |
|---|---|---|---|---|---|---|
| | Number of shares under option | | Weighted average exercise price | Number of shares under option | | Weighted average exercise price |
| Outstanding at beginning of year | **3,719,667** | **$** | **0.59** | 4,075,517 | $ | 0.54 |
| Granted | **60,000** | | **2.44** | 72,000 | | 2.44 |
| Exercised | **(248,920)** | | **0.56** | (175,841) | | 0.49 |
| Forfeited/canceled | **(518,080)** | | **1.20** | (252,009) | | 0.65 |
| Outstanding at end of year | **3,012,667** | **$** | **0.51** | 3,719,667 | $ | 0.59 |

The following table summarizes information about stock options outstanding at December 31, 2021:

| | Options outstanding | | | | Options exercisable | | |
|---|---|---|---|---|---|---|---|
| Exercise price range | Number of outstanding shares | Weighted average contractual life (years) | | Weighted average exercise price | Number of shares | | Weighted average exercise price |
| US$0.30–US$0.84 | **2,669,667** | **4.46** | **$** | **0.35** | **2,669,667** | **$** | **0.35** |
| US$0.85–US$2.51 | **343,000** | **7.54** | | **1.79** | **235,000** | | **1.49** |
| | **3,012,667** | **4.81** | **$** | **0.51** | **2,904,667** | **$** | **0.44** |

As of December 31, 2021, the weighted average contractual life for exercisable stock options was 4.65 years.

The Company's stock price closed at US$2.03 (£1.50) on December 31, 2021. As of December 31, 2021, the aggregate intrinsic value for outstanding and exercisable stock options was US$4,650,265 and US$4,627,345, respectively. Intrinsic value for stock options is defined as the difference between the current market value of the stock and the exercise price. The intrinsic value represents the value that would have been received by the option holders had the option holders exercised all of their options as of that date.

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 subjective variables including stock price, volatility, expected life of options, risk free interest rates, and expected dividends, if any. During both the years ended December 31, 2021 and 2020, the weighted average grant date fair value of stock options granted was US$2.44. The assumptions used to value stock option grants are as follows for the year ended:

| | December 31, | |
|---|---|---|
| | **2021** | 2020 |
| Risk free rate | **0.83%** | 0.63% |
| Expected life (years) | **7** | 7 |
| Assumed volatility | **45.28%** | 43.94% |
| Expected dividends | **4.0%** | 4.0% |

The following table summarizes stock-based compensation expense for the year ended:

| | December 31, | | | |
|---|---|---|---|---|
| | | **2021** | | 2020 |
| Cost of sales | **$** | **14,895** | $ | 32,674 |
| Research and development | | **14,022** | | 14,802 |
| General and administrative | | **26,387** | | 1,442 |
| Sales and marketing | | **15,592** | | 10,605 |
| | **$** | **70,896** | $ | 59,523 |

As of December 31, 2021, there was approximately US$144,000 of unrecognized compensation cost, related to unvested stock-based payments granted to our employees and Directors, which is expected to be recognized over a weighted average period of 1.7 years. Total unrecognized compensation cost will be adjusted for future changes in forfeitures and recognized over the remaining vesting periods of the stock grants.

## 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 employee retirement plan (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, 2021 and 2020, the Company's matching contributions were US$40,035 and US$40,529, respectively.

## Note N – Business combinations

On December 10, 2020, the Company increased its equity interest in Solaris from 4.79% to 48.65% on an as-converted basis for total consideration of US$702,000 consisting of US$294,058 cash, the issuance of 126,252 shares of the Company's common stock valued at US$305,942, the commitment to provide US$100,000 of research and administration services at cost to Solaris over the ensuing 24 months and the conversion of a US$2,000 receivable due from Solaris. See note C for related party nature of the transaction. The Company has concluded that Solaris is a VIE and the Company is the primary beneficiary and has consolidated the accounts of Solaris as of December 10, 2020. A noncontrolling interest is attributable to the 51.35% of Solaris not owned by the Company. The Company has accounted for the transaction as a business combination and will include Solaris as part of its Authentication Systems segment.

The transaction price was allocated to the assets acquired and liabilities assumed based on their estimated fair value. All fair value measurements of assets acquired and liabilities assumed were based on significant estimates and assumptions, including Level 3 (unobservable) inputs, which require judgment. Estimates and assumptions include the projected timing and amount of future cash flows, discount rates reflecting risk inherent in future cash flows and future market prices.

The following table summarizes the final amounts recognized by the Company for the estimated fair value of assets acquired and liabilities assumed in the transaction:

| | | |
|---|---|---|
| Total consideration transferred | $ | 702,000 |
| **Identified assets acquired and liabilities assumed** | | |
| Cash | $ | 296,223 |
| Other receivables | | 100,000 |
| Intangible assets (15-year amortization period) | | 535,000 |
| Goodwill | | 571,744 |
| Accounts payable and other liabilities | | (60,007) |
| Noncontrolling interest | | (740,960) |
| Total net identified assets, at fair value | $ | 702,000 |

## Note O – Segment reporting

In accordance with ASC 280, management has identified three operating segments. The first is the Authentication Systems Group, which captures the hardware, software and materials related to the authentication of banknotes, tax stamps and other high-value goods. The second segment is the Secure Transactions Group, which provides an Internal Control System (ICS) software offering to the lottery and gaming industries. ICS provides tools for fraud, money laundering and match fixing detection, as well as statistical analysis. The third segment is the Banknote Cleaning Group, which captures the technology related to cleaning and disinfecting banknotes.

Information for each reportable segment as of December 31, 2021 and 2020 is as follows:

| | | | Gross revenue | | Income (loss) from operations | | Depreciation and amortization | | Capital expense | | Segment assets |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **2021** | **Secure Transactions** | **$** | **1,874,630** | | **279,974** | **$** | **39,527** | **$** | **1,158** | **$** | **1,882,745** |
| | **Authentication Systems** | | **14,717,694** | | **5,704,398** | | **737,634** | | **68,715** | | **30,787,305** |
| | **Banknote Cleaning** | | **—** | | **(74,371)** | | **53,860** | | **6,232** | | **482,267** |
| | **Total** | **$** | **16,592,324** | **$** | **5,910,001** | **$** | **831,021** | **$** | **76,105** | **$** | **33,152,317** |
| 2020 | Secure Transactions | $ | 1,423,641 | | 134,818 | $ | 85,075 | $ | 3,682 | $ | 1,964,323 |
| | Authentication Systems | | 13,251,518 | | 5,341,181 | | 823,420 | | 393,594 | | 30,447,694 |
| | Banknote Cleaning | | — | | (147,682) | | 59,306 | | 60,491 | | 488,044 |
| | Total | $ | 14,675,159 | $ | 5,328,317 | $ | 967,801 | $ | 457,767 | $ | 32,900,061 |

FINANCIAL STATEMENTS

## NOTES TO THE FINANCIAL INFORMATION continued

for the years ended December 31, 2021 and 2020

### Note P – Earnings per share

The calculation of basic earnings per share is based on the net income divided by the weighted average number of common shares outstanding. Diluted earnings per share is calculated by considering the dilutive impact of common stock equivalents under the treasury stock method as if they were converted into common stock as of the beginning of the period or as of the date of grant, if later. Excluded from the calculation of diluted earnings per common share for the years ended December 31, 2021 and 2020 were 125,425 and 8,656 shares, respectively, related to stock options because their exercise prices would render them anti-dilutive. The following table shows the calculation of basic and diluted earnings per common share:

| | December 31, 2021 | December 31, 2020 |
|---|---|---|
| **Numerator** | | |
| Net income | **$ 5,162,830** | $ 5,124,129 |
| **Denominator** | | |
| Weighted average number of common shares outstanding | **45,353,550** | 45,599,014 |
| **Effect of dilutive securities** | | |
| Stock options | **2,385,480** | 2,767,105 |
| **Diluted weighted average number of common shares outstanding** | **47,739,030** | 48,366,119 |
| **Earnings per common share** | | |
| Basic | **$ 0.11** | $ 0.11 |
| Diluted | **$ 0.11** | $ 0.11 |

### Note Q – Subsequent events

The Company evaluated all events or transactions that occurred through March 18, 2022, the date these financial statements were available to be issued.

On March 21, 2022, the Company declared a dividend of US$0.11 per share to be paid on or around June 24, 2022 to shareholders of record as of June 6, 2022.

# SHAREHOLDER AND CORPORATE INFORMATION

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## SPECTRA SYSTEMS.
## LEADING THE INDUSTRY IN INNOVATION, PERFORMANCE AND SUSTAINABILITY.

Spectra Systems' twenty-year track record of providing covert technology to central banks is unmatched. To date, its expertise in LEVEL III authentication has been implemented by twenty central banks, including two in the G7. Its knowledge of optical physics in incorporating taggants and high-speed reading of covert features enables Spectra to provide the highest level of banknote security worldwide.

Spectra Systems (SPSY.L) is listed on the London Stock Exchange

Spectra Systems
CORPORATION


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**Spectra Systems Corporation** Annual report and accounts 2021