



ANNUAL INFORMATION FORM

For the Fiscal Year Ended December 31, 2016

Dated: February 15, 2018



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GENERAL MATTERS AND FORWARD-LOOKING STATEMENTS

Information contained in this Annual Information Form (“AIF”) is provided as at December 31, 2016, unless otherwise specified. Unless the context otherwise requires, all references in this AIF to “Photon Control”, “we”, “us”, “our” and the “Company” refer to Photon Control Inc. and its subsidiaries. In this AIF, references to “\$”, “Cdn\$”, “dollars” or “Canadian dollars” are to Canadian dollars. Unless otherwise indicated, all dollar amounts are expressed in Canadian dollars.

This AIF is prepared as of February 15, 2018. You should read this AIF in conjunction with our audited consolidated financial statements for the year ended December 31, 2016 and the management’s discussion and analysis thereon. Additional information about the Company is available on SEDAR at www.sedar.com.

Forward-Looking Statements

This AIF contains certain statements and information that are not based on historical facts and constitute forward-looking statements or forward-looking information within the meaning of Canadian securities laws (collectively, “forward-looking statements”), including our business outlook for the short and longer term and statements regarding our strategy, plans and future operating performance. Forward-looking statements are provided to help you understand our views of our short and longer-term plans, expectations and prospects. We caution you that forward-looking statements may not be appropriate for other purposes.

Any statements that express or involve discussions with respect to predictions, expectations, beliefs, plans, projections, objectives, assumptions or future events or performance (often, but not always, identified by words or phrases such as “expects”, “is expected”, “anticipates”, “believes”, “plans”, “projects”, “estimates”, “assumes”, “intends”, “strategy”, “goals”, “objectives”, “potential”, “possible” or variations thereof or stating that certain actions, events, conditions or results “may”, “could”, “would”, “should”, “might” or “will” be taken, occur or be achieved, or the negative of any of these terms and similar expressions) are not statements of historical fact and may be forward-looking statements. Forward-looking statements are not promises or guarantees of future performance; they represent our current views and may change significantly. Forward-looking statements are based on a number of material assumptions, including, but not limited to, those listed below, which could prove to be significantly incorrect:

- our ability to develop, manufacture and sell new products that meet the needs of our customers and gain commercial acceptance;
- our ability to continue to sell our products in line with quantity, price and delivery expectations;
- our ability to attract new business;
- our production being adversely affected by development, operating and regulatory risks;
- our ability to successfully complete new purchase orders along the timelines expected;
- continued and future demand for the Company’s products;
- continued sales to the Company’s major customers;
- continued financial health of the semiconductor industry;
- our ability to continue and further enhance revenue diversification and open new market opportunities; and
- our expectations regarding market risk, including interest rate changes, tax changes and foreign currency fluctuations.

The forward-looking statements included in this report include, without limitation, statements relating to:

- factors that expect to continue to drive demand for the Company’s products;
- expected growth within the semiconductor and the Company’s reliance on the financial health of the semiconductor industry from which it derives the majority of its sales;
- the market for the Company’s products;
- sources of our revenues from operations in the future;

- continued international expansion and the effect of such expansion on our operations;
- potential acquisitions in the future and the effect of such acquisitions on our operations;
- fluctuation of the price of the Common Shares in the future;
- potential inability of investors to sell their Common Shares;
- our future performance being dependent on our ability to hire and retain qualified personnel; and
- the Company not anticipating paying any dividends in the foreseeable future.

Forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company to be materially different from any results, performance or achievements expressed or implied by the forward-looking statements. Such uncertainties and factors include, among others:

- risks associated with compliance with customers' requirements;
- risks associated with the Company's ability to retain major customers;
- risks associated with shifts in demand for the Company's products and the Company's ability to expand its manufacturing capacity;
- risks associated with continuous technological change, evolving industry standards, shifting customer needs and new product introductions and enhancements;
- uncertainty relating to the timing of product development and commercial launch;
- risks associated with a lengthy sales cycle;
- risks associated with competition;
- risk associated with changes in the demand for our products;
- uncertainty relating to operating results;
- risks associated with disruptions to our manufacturing facility;
- risks associated with product liability claims;
- risks related to product pricing;
- risks associated with the Company's intellectual property;
- risks associated with infringing on the intellectual property rights of others;
- operational risks associated with manufacturing;
- risks associated with potential defects of our products;
- uncertainty relating to general economic conditions and the cyclical nature of the semiconductor industry;
- uncertainty relating to fluctuations in currency exchange rates, particularly between the Canadian and U.S. dollar;
- uncertainty related to international operations, including additional development projects and other business opportunities;
- risks related to future mergers or acquisitions;
- risks related to the volatility of the trading price and volume of the Common Shares;
- risks associated with maintaining an active market for the Common Shares;
- risks associated with our directors and officers;
- risks associated with attracting and retaining qualified personnel;
- risks related to managing and storing proprietary information and sensitive or confidential data relating to the Company's operations electronically; and
- risks associated with compliance with various federal, provincial, local and international laws governing the environment.

This list is not exhaustive of the factors that may affect any of our forward-looking statements. Forward-looking statements are statements about the future and are inherently uncertain, and our actual achievements or other future events or conditions may differ materially from those reflected in the forward-looking statements due to a variety of risks, uncertainties and other factors, including, without limitation, those referred to in this report under the heading “Risk Factors”.

The Company’s forward-looking statements are based on beliefs, expectations and opinions of management on the date the statements are made. For the reasons set forth above, readers should not place undue reliance on forward-looking statements. The Company undertakes no obligation to update or revise any forward-looking statements included herein if these beliefs, estimates and opinions or other circumstances should change, except as otherwise required by applicable law.

CORPORATE STRUCTURE

Photon Control was incorporated under the *Company Act* (British Columbia) on September 6, 1988 under the name “CST Coldswitch Technologies Inc.” The Company changed its name to “Coldswitch Technologies Inc.” on July 4, 2001 and to “Photon Control Inc.” on August 9, 2002. On June 22, 2005, the Company transitioned under the *Business Corporations Act* (British Columbia).

The Company has the following five wholly-owned subsidiaries:

Name	Jurisdiction of Incorporation	Status
Photon Control (USA) Inc.	Delaware	Active
LAI Lightwave Aerospace Industries Ltd.	British Columbia	Inactive
CST Coldswitch Holdings Inc.	British Columbia	Inactive
The LightSwitch Company Inc.	Canada	Inactive
Photon Control (Alberta) Inc.	Alberta	Inactive

The Company’s registered and records office is located at Suite 2600, Three Bentall Centre, 595 Burrard Street, Vancouver, British Columbia, Canada, V7X 1L3 and its head office and principal place of business is located at 130 - 13500 Verdun Place, Richmond, British Columbia, V6V 1V2.

GENERAL DEVELOPMENT OF THE BUSINESS

Photon Control designs, manufactures and distributes a wide range of optical sensors and instruments to measure temperature, position, and flow. These products are used by global Original Equipment Manufacturers (“OEMs”) and end users in the semiconductor and other industries. Photon Control’s high-quality products provide industry leading accuracy and reliability in extreme conditions and are backed by a team of experts providing a variety of on-site and remote services including custom design, installation, training and support. The Company’s headquarters are located in an ISO 9001:2015 certified manufacturing facility in Richmond, BC, Canada.

Recent Developments

On January 4, 2017, the Company commenced a normal course issuer bid (the “2017 NCIB”) to acquire up to 5,400,000 common shares in the capital of the Company (“Common Shares”), which expired on January 3, 2018. Under the 2017 NCIB, the Company purchased for cancellation a total of 579,800 Common Shares at market prices ranging from \$1.01 to \$1.10 per Common Share through the facilities of the TSX Venture Exchange (the “TSXV”).

On January 13, 2017, the Company announced the appointment of Neil McDonnell as Chair of the Board of Directors of the Company (the “Board”).

In February 2017, the Company announced that Canadian Business magazine and PROFITguide.com once again ranked Photon Control as part of its annual PROFIT 500 rankings. The Company also announced that Business in Vancouver magazine ranked Photon Control in the “Top 100 Fastest-Growing Companies in BC”, “Biggest Manufacturers in Metro Vancouver 2017”, and “Top 100 Public Companies in BC”. The Province of British Columbia nominated Photon Control as a 2016 BC Export Awards finalist in the category of “Advancing

Technology & Innovation". The Company was also recognized as a TSX Venture 50™ company in 2017 for the third consecutive year. The TSX Venture 50® is an annual ranking of strongest performing companies whose shares are listed for trading on the TSXV.

On March 31, 2017, the Company announced certain changes to the Board and management team. Charles Cargile was appointed as a director and Scott Edmonds was appointed as President, Chief Executive Officer ("CEO") and as a director. Michael W. Goldstein resigned as acting CEO and as a director of the Company, while Robert B. Breault and Joseph Litner resigned from the Board.

In April 2017, the Company announced the settlement of its outstanding litigation with Photon Control R&D Ltd. ("Photon R&D") and the entry into a settlement agreement with Photon R&D ("**Settlement Agreement**"). Pursuant to the terms of the Settlement Agreement, Photon Control acquired full ownership of all intellectual property, products, trademarks and other assets under dispute that were previously owned by Photon R&D, Photon R&D employees were transferred to and hired by Photon Control, Photon Control agreed to pay a certain percentage of its revenues for five years to certain former owners of Photon R&D and the parties agreed to settle all outstanding legal disputes. Please see "*Legal Proceedings and Regulatory Actions - Legal Proceedings*" in this AIF for further details with respect to the Unauthorized Transfer (as defined below) and legal proceedings with Photon R&D.

In May 2017, the Company moved into its new state-of-the-art manufacturing facility, significantly increasing its production capacity for continued growth.

In June 2017, the Company commenced the restructuring of its Oil and Gas business unit and on August 8, 2017, the Company announced the appointment of Ace Instruments Ltd. as its new distributor for its Focus® 2.0 Optical Gas Flow Meter and related products.

On July 17, 2017, the Company announced the appointment of Daniel Lee as Chief Financial Officer ("**CFO**").

On July 27, 2017, the Company received \$0.6 million of funds previously held in escrow by the Supreme Court of British Columbia in conjunction with the litigation with Photon R&D.

On September 14, 2017, the Company announced the achievement of customer certification and successful completion of the Company's relocation to its newly designed manufacturing facility in Richmond, BC, Canada. The Company completed all of the stringent customer audits and assessments along with all critical design reviews to meet the semiconductor industry standards of "copy exact" requirements. The Company achieved full certification expected from its semiconductor customers to manufacture and ship products from the new manufacturing facility.

On October 23, 2017, the Company announced the appointment of Michele Klein as a director.

On January 4, 2018, the Company commenced a normal course issuer bid (the "**2018 NCIB**") to acquire up to 5,500,000 Common Shares, which will expire on January 3, 2019.

On January 25, 2018, the Company announced the release of a four channel temperature converter. This multi-channel system is a single electronic enclosure with four channels which reduces the space required for temperature sensing systems. These converters are designed and developed specifically to meet the demanding and stringent requirements of high radio frequency semiconductor process control applications.

In January 2018, the Company received ISO 9001:2015 certification for its management system.

Three Year History

2016

On January 4, 2016, the Company commenced a normal course issuer bid (the "**2016 NCIB**") to acquire up to 5,000,000 Common Shares, which expired on January 3, 2017. Under the 2016 NCIB, the Company purchased for cancellation a total of 1,474,500 Common Shares at market prices ranging from \$0.69 to \$1.00 per Common Share through the facilities of the TSXV.

On February 25, 2016, Photon Control announced that it was once again recognized as a TSX Venture 50® company by the TSXV.

During the year ended December 31, 2016, the Company leased a new production facility to allow increased production capacity.

Also during the year ended December 31, 2016, the Company initiated steps to recover \$4.5 million of funds that were transferred in an unauthorized manner (the "**Unauthorized Transfer**") to Photon R&D, a related third-party company. Following the discovery by the Board of the Unauthorized Transfer, the Company implemented a series

of measures to improve governance and internal controls, including launching a forensic accounting audit, conducting an intellectual property (“IP”) audit, reviewing the IP agreements and restructuring the Board by adding Neil McDonnell, Ronan McGrath and Michael Torok. On July 25, 2016, the Company announced that it has fully recovered the funds subject to the Unauthorized Transfer.

In the latter half of 2016, the Company commenced litigation and settlement discussions to resolve all disputes with Photon R&D, including confirming ownership of intellectual property, clarifying the agreement on royalty rates and taking over the employment of Photon R&D personnel. On April 7, 2017, Photon Control entered into the Settlement Agreement with Photon R&D to settle all outstanding disputes. Please see “Legal Proceedings and Regulatory Actions - Legal Proceedings” in this AIF for further details with respect to the Unauthorized Transfer and legal proceedings with Photon R&D.

2015

During the year ended December 31, 2015, the Company successfully completed the ISO 9001:2008 “24 Month Surveillance Audit”.

On February 11, 2015, Photon Control announced that it was recognized as a TSX Venture 50[®] company.

On July 23, 2015, the Company launched its Custom Spectrometer Builder Web App. The app is a specialized web tool that helps distributors and customers make an informed spectrometer purchasing decision in seven simple steps.

On November 30, 2015, Photon Control announced that it was named on the “2015 Profit 500” list in the Canadian Business magazine and PROFITguide.com. The Company was also named by Business in Vancouver as one of the “Top 100 Fastest Growing Companies in BC” and “Top 100 Most Profitable Companies”. The Company was also a finalist for the Business of the Year (up to 50 Employees) Award at the Burnaby Business Excellence Awards.

2014

During the year ended December 31, 2014, the Company successfully completed the ISO 9001:2008 “Re-Certification Audit”.

On January 23, 2014, Photon Control introduced the PalmSense². These portable and handheld fiber optic temperature measurement systems can be used for research and life science applications along with electromagnetic interference, radio frequency, X-ray, microwave and harsh chemical environments.

Pursuant to a one-year normal course issuer bid (the “**2014 NCIB**”) that ended on May 7, 2014, the Company purchased at prevailing market prices a total of 1,950,000 Common Shares, of which 1,100,000 Common Shares were purchased in 2013 and 850,000 Common Shares were purchased during the first half of 2014. All Common Shares purchased under the 2014 NCIB have been cancelled.

On June 5, 2014, Photon Control introduced the second generation of the Focus[®] Optical Flow Meter at the Global Petroleum Show in Calgary, Alberta. It is specifically designed for gas flaring applications, using Laser-2-Focus Velocimetry Technology, enabling oil and gas companies to accurately measure flow rates with levels of performance unmatched by other technologies.

On July 10, 2014, Photon Control announced that it was named on the “2014 Profit 500” list in the Canadian Business magazine and PROFITguide.com, which is an annual ranking of Canada’s fastest-growing companies. Photon Control also won the “Technology Fast-Growth Business of the Year - Canada” award as part of the 2014 Business Excellence Awards given by the Acquisition International magazine and was recognized by Business in Vancouver magazine as one of “Top 100 Tech Companies in BC”.

On September 16, 2014, the Company announced that it received initial orders for customized optical measurement products from a new OEM purchaser that is active in the semiconductor industry outside of North America.

On December 30, 2014, Photon Control announced that it was named one of Deloitte’s Technology Fast 50[™] & Deloitte’s 2014 Technology Fast 500[™] Companies, one of British Columbia’s Top 100 Fastest Growing and Top 100 Most Profitable Companies and as a finalist for the Business of the Year (up to 50 Employees) Award at the Burnaby Business Excellence Awards.

NARRATIVE DESCRIPTION OF THE BUSINESS

Photon Control designs, manufactures and distributes a wide range of optical sensors and instruments to measure temperature, pressure, position, and flow. These products are used by OEMs as well as end users in the semiconductor, energy, life sciences and manufacturing industries. Photon Control's products are designed to perform in extreme conditions and are supported by a team of experts that offers on-site installation, training, and support. Photon Control also provides engineering services for customized optical measurement systems.

Product, Distribution and Industries

Semiconductor Industry: Temperature and Position Sensors

The semiconductor capital equipment industry offers several significant and growing applications for our technology and has become the primary source of revenue and growth for our business. The Company designs and produces precision temperature and position sensors used by semiconductor Wafer Fabrication Equipment ("WFE") manufacturers. The manufacturing of silicon wafers for semiconductors involves a multitude of complex processes in harsh environments; monitoring and maintaining correct position and temperature is critical to this process and to optimize product yield. Fiber optic sensors are both electromagnetic and radio frequency signal immune allowing them to provide highly accurate results in the harsh environments in which semiconductors are fabricated. Photon Control's fiber optic temperature and position sensors are manufactured according to "copy exact" standards in an ISO-certified facility.

Our fiber optic sensor technology is uniquely qualified to measure temperature and position in semiconductor manufacturing environments such as wafer etching, atomic layer deposition ("ALD"), chemical vapour deposition ("CVD") and physical vapour deposition ("PVD"). The need for increasing geometric granularity drives the number of measurement points required as well as the need for the highly accurate measurements provided by fiber optic sensors. In addition, as semiconductor capital equipment has gone from 28 nm to 10 nm linewidth for leading edge applications over the last 10 years, the number of desirable measurement points has increased more than four-fold. Similarly, the proliferation of connected devices and 3D chip designs are becoming more and more mainstream taking significant market share in many applications. These factors have driven and are expected to continue to drive demand for our products.

Other Products

Based on the "laser-two-focus" method, our optical gas flow meter technology is used in industrial gas flow metering applications. Laser-2-Focus Velocimetry uses laser beams to measure the gas flow by sensing the velocity of microscopic particulates naturally occurring in gas. Being indifferent to gas composition, our solution has less sensitivity than competing alternatives in gas velocity and volumetric flow rate measurements for flare and vent gas applications.

We offer a comprehensive range of spectrometer accessories and software to make OEM integrations and complex experiments easier. We also provide stable ultraviolet ("UV") and broadband light sources, reflectance probes, transmission stages, and collimating lenses.

Sales, Marketing and Distribution

Photon Control sells its products globally with sales to OEMs primarily in the United States who in turn sell their products to end users in the United States, Asia and Europe. We also sell through a network of distributors in Asia who sells our products to OEMs in their home markets. The Company's other products are sold directly and through distributors.

The following table shows a summary of our revenues by product segment for the fiscal years ended December 31, 2016 and 2015:

Product Segment	For the year ended December 31			
	2016		2015	
	(\$)	(%)	(\$)	(%)
Semiconductor	\$30,551,196	95%	\$26,152,637	95%
Other	\$1,620,800	5%	\$1,422,016	5%
Total	\$32,171,996	100%	\$27,574,653	100%

Revenue for the financial year ended December 31, 2016 was \$32.2 million representing an increase of \$4.6 Million or 17% compared to \$27.6 million reported in 2015. The improvement in reported revenue for the year were due to robust market conditions persisting in the semiconductor industry. Our products are priced in U.S. dollars and as a result we benefited from strengthening of the U.S. dollar against the Canadian dollar in 2016 as compared to 2015.

Market Landscape

Semiconductor Industry (Optical Sensors)

Semiconductors have revolutionized the way people work, communicate, travel, entertain, and live. As a building block of technology, semiconductors will continue to enable innovation and transform industries. With the accelerating pace of new chip capabilities and more applications, chip makers will need to increase production to meet this growing market. Simultaneously, semiconductor companies are regularly transitioning to new design and production technologies. Many of these technologies increase the number of process steps requiring more overall WFE production capacity. The combination of overall semiconductor growth and increased demand for equipment is expected to in turn drive growth for the Company. Photon Control's primary vertical in this market is in "Etch", one of many manufacturing steps in the process of creating semiconductors. The Company works in and is developing business plans to meet demand in several other process steps including expanding its revenues from the deposition step as well as extending its product reach into the processes involved in the manufacturing of organic LED panels and other sophisticated display panel technologies, the fabrication of which is similar to the process for semiconductors.

Other

Recent oil and gas regulations require measurement and reporting of gas emissions on flare stacks. In addition to meeting regulatory standards, energy companies are likely to require detailed breakouts of the composition of emissions in order to participate in carbon capture revenue incentive programs. The Company's Focus® 2.0 Optical Gas Flow Meter has applications for flare gas monitoring, natural gas monitoring, biogas and digester gas output.

The Company sells spectrometers and fiber optic temperature sensors to universities, research labs and others. As well, the Company has provided a limited number of fiber optic temperature sensors to be used in medical devices such as magnetic resonance imaging machines and in power industry for hot-spot monitoring in switch gears and dry-transformers.

Production and Services

Photon Control uses a variety of assembly and test techniques in the production of its temperature and position sensors, both in-house and outsourced to contract manufacturers. Methods include, but are not limited to, manual, fixtured and semi-automated component assembly using both mechanical and adhesive technologies, fabrication of machined and molded parts, printed circuit board surface mount technology (SMT) and wave solder assembly, and component assembly and test within an IPC Class 6 cleanroom environment. Additional testing methods range from in-circuit and functional to extreme environment temperature and position accuracy verification. Quality and specification inspection, using various gauge and material analysis equipment, is used in support of production. Services include design, analysis, reliability testing, repair, rework and upgrade support.

Semiconductors

Under this reportable segment, the Company devotes extensive efforts to its semiconductor activities. In this area, Photon Control develops, manufactures and markets precision temperature and position sensors used by semiconductor WFE manufacturers that are sold through a network of distributors and a direct sales force.

Other

The Company commercializes optical and conventional sensors connected to readout units to measure flow for the oil and gas industry in North America. Photon Control uses an experienced supplier, Ace Instruments, to distribute and install the Optical Flow Meter. The Company manufactures all its products in its facility located in Richmond, BC.

In the industrial sector, customers' needs are wide-ranging and require measuring various parameters like position, temperature, flow and others. The Company is focusing on business opportunities with highest returns and working to develop new products to fulfill their specific needs.

Specialized Skill and Knowledge

Due to the technical nature of its business and the dynamic market in which the Company competes, continued success depends on attracting and retaining highly skilled engineering, production, managerial, consulting, marketing and sales personnel. In particular, the Company's future success depends in part on the continued services of key employees.

The engineering function requires specialized skill and knowledge, from academic and industry-related experience, for research, development and design of electronic, photonic and mechanical componentry and associated production assembly and test techniques. Production relies on technician skills and experience in several manual and semi-automated assembly and test techniques. Training programs develop and maintain those skills, whereby process documentation provides instructions on how to complete assembly and test operations. In some cases, techniques require formal training and certification such as hand soldering and fork-lift operation.

Competitive Conditions

The competitive conditions vary depending on the markets where the Company's products are used. The Company competitively positions itself by highlighting its long history in the fiber optic industry, the accuracy of its products and well documented proof of this accuracy being sustainable, its products purchased and tested by some of the largest WFE manufacturers, the quality of its products, and the "Rapid Deployment" capabilities of its new product introduction team when differentiating itself from its competitors.

Differences between our fiber optic sensors and those of other companies

The Company has perfected the use of phosphor-based fiber optic and other optical sensing technologies for the most complex environment with accuracy, rapid prototyping and "copy exact" manufacturing. Because of this, the Company is deeply embedded with the world's largest, most demanding WFE manufacturers with long product life cycles (5-7 years). The long-standing partnerships with such WFE manufacturers are a key differentiating factor from other competing companies.

Differences between our flow meter, and those of other companies

Based on the "Laser-2-Focus" method, the Company's optical gas flow meter technology is used in industrial gas flow metering applications. Laser-2-Focus Velocimetry uses laser beams to measure the gas flow by sensing the velocity of microscopic particulates naturally occurring in gas. Being indifferent to gas composition, the Company's solution has less sensitivity than competing alternatives in gas velocity and volumetric flow rate measurements for flare and vent gas applications.

New Products

The Company keeps abreast of current and evolving market trends, and has a strong complement of engineering personnel to continuously refine its product offerings, and research, develop and design for new technologies.

Cycles

The semiconductor industry has historically suffered certain cycles of growth and contraction, and as the Company is a component supplier to the capital equipment manufacturers in the semiconductor space, it is also subject to such cycles. The Company has taken steps, and continues to take steps to diversify its offerings and customer base. For example, in addition to temperature sensors, the Company has added position sensors as a second product line. In addition, the Company has added distributors and customers in Asia, and is actively working to add to its customer base.

Economic Dependence

The Company earned 88% of its revenues from its 5 largest customers in 2016, and while this does not create economic dependence on any individual customer, the loss of one would seriously impact the Company's profitability in the near term. Offsetting this risk is the long-term nature of the customers' product line into which the Company's products have been "designed in". The nature of the "copy exact" standard to which all suppliers in the semiconductor industry are subject to means that it is difficult and time consuming for a customer to change suppliers. This remains a real risk but mitigates the concentration risks to which the Company is subject.

Employees

At December 31, 2016, the Company had 60 full time equivalent employees, all of whom were located in North America. As of the date of this AIF, the Company had 90 employees.

Foreign Operations

Photon Control sells its products globally, with sales to OEMs in the United States forming our largest market. Our customers in turn sell their products to end users in United States, Asia and Europe. We also have a network of distributors who sell direct to OEMs in their home market; the primary source of distributor sales is Asia. The Company however has no direct foreign operations.

The following table provides a summary of our revenues by territory:

	For the year ended December 31		Variance	
	2016	2015	(\$)	(%)
United States	\$24,636,959	\$21,454,126	\$3,182,833	15%
Asia	\$6,636,986	\$5,574,150	\$1,062,836	19%
Canada	\$816,245	\$429,864	\$386,381	90%
Europe	\$81,806	\$116,513	\$(34,707)	-30%
Total	\$32,171,996	\$27,574,653	\$4,597,343	17%

For the year ended December 31, 2016, the Company's revenues generated from customers located in the United States increased over the prior comparable period due to the overall growth in the semiconductor segment. The increased revenues in Asia reflect market share gains made with existing OEM customers as well as semiconductor segment growth. Revenues in Canada for the year increased over the prior comparable period as a result of the oil and gas product segment, while revenues in Europe decreased over the comparable periods in 2016.

Reorganizations

In 2008, the Company's engineering functions were outsourced to a non-arm's length company controlled by the Company's then Chair and CEO, and the CEO's son. Soon thereafter the CEO of the Company resigned to become CEO of the non-arm's length company, and his son was appointed to replace him as CEO of the Company. This outsourcing arrangement was unwound with the April 2017 litigation settlement with Photon R&D. Please see "*Legal Proceedings and Regulatory Actions - Legal Proceedings*" for further details with respect to the litigation settlement.

Other than the transactions described as part of the settlement with Photon R&D, the Company has not undertaken any reorganizations.

RISK FACTORS

Our business is subject to significant risks and uncertainties and past performance is no guarantee of future performance. The risks and uncertainties described below are those that we currently believe to be material, and do not represent all of the risks that we face. Additional risks and uncertainties, not presently known to us, may become material in the future or those risks that we currently believe to be immaterial may become material in the future. If any of the following risks actually occur, alone or in combination, our business, financial condition and results of operations, as well as the market price of the Common Shares, could be materially adversely affected.

If we or our suppliers fail to comply with customers' requirements, manufacturing of our products could be negatively impacted, and sales of our products could suffer.

Our manufacturing practices must be in compliance with customers' requirements, which govern the facility, methods, control procedures, records of design, manufacturing, packaging, labeling, storage, shipping, installation, and servicing of our products. If we or our suppliers fail to comply with such customers' requirements, our operations and financial results may be negatively impacted.

We are exposed to risks associated with a highly concentrated customer base.

Our top five customers accounted for approximately 88% and 86% of our net revenues for the years ending December 31, 2016 and 2015, respectively. As a result, the actions of even a single customer can expose our business and results of operations to greater volatility. The mix and type of customers, and sales to any single customer, may vary significantly from quarter to quarter and from year to year, and have a significant impact on our business, financial condition and results of operations. If customers do not place orders, or they substantially reduce, delay or cancel orders, we may not be able to replace the business, which may have a significant adverse impact on our results of operations and financial condition. Major customers may also seek pricing, payment, intellectual property-related, or other commercial terms that are less favorable to us, which may have a negative impact on our business, revenue and gross margins. The demand for our products from our customers depends on the cyclical nature of our served markets, specifically the semiconductor equipment market. Attempts to lessen the adverse effect of any loss or reduction of net revenues through the rapid addition of new customers could be difficult because a relatively small number of companies dominate the semiconductor equipment market. Further, prospective customers typically require lengthy qualification periods prior to placing volume orders with a new supplier.

The semiconductor industry is subject to rapid demand shifts which are difficult to predict. As a result, our inability to expand or outsource our manufacturing capacity or reduce our fixed costs in response to these rapid shifts may cause a reduction in our market share.

Our ability to increase sales of certain products depends in part upon our ability to expand our manufacturing capacity for such products in a timely manner. If we are unable to expand our manufacturing capacity on a timely basis or to manage such expansion effectively, our customers could implement our competitors' products and, as a result, our market share could be reduced. Because the semiconductor industry is subject to rapid demand shifts, which are difficult to foresee, we may not be able to increase capacity quickly enough to respond to a rapid increase in demand. Additionally, capacity expansion could increase our fixed operating expenses and if sales levels do not increase to offset the additional expense levels associated with any such expansion, our business, financial condition and results of operations could be materially adversely affected.

Many of the markets and industries that we serve are subject to continuous technological change, and if we fail to introduce new and innovative products or improve our existing products, or if the adoption of our new products by customers is not successful, our business, financial condition and results of operations will be harmed.

Many of our markets are characterized by continuous technological advances, evolving industry standards, shifting customer needs, new product introductions and enhancements, and the periodic introduction of disruptive technology that displaces current technology due to a combination of price, performance and reliability. As a result, many of the products in our markets can become outdated. We depend, to a significant extent, upon our ability to enhance our existing products, to anticipate and address the demands of the marketplace for new and improved and disruptive technologies, through a variety of techniques including deep and regular engagement with our customers' engineering teams, internal development or by acquisitions, and by aiming to be price-competitive.

Delays in planned product introductions may adversely affect us and negatively impact future revenues.

We may in the future experience delays in various phases of product development and commercial launch, including during research and development, manufacturing, limited release testing, marketing and customer education efforts. Any delays in our product launches may significantly impede our ability to successfully compete in our markets and may reduce our revenues. We and our future collaborators may fail to develop or effectively commercialize products covered by our future collaborations if:

- we do not achieve its objectives under our collaboration agreements;
- we or our collaborators are unable to obtain patent protection for the products or proprietary technologies we develop with our collaborators; or
- we or our collaborators encounter regulatory hurdles that prevent commercialization of our products.

If we or our collaborators are unable to develop or commercialize products as planned, or if conflicts arise with our collaborators, we will be delayed or prevented from developing and commercializing products, which will harm us and our financial results.

Because our sales cycle is long and certain of our orders are subject to rescheduling or cancellation, we may experience fluctuations in our operating results.

Many of our products are complex and customers for these products require substantial time to qualify our products and make purchase decisions. These customers often perform, or require us to perform, extensive configuration, testing and evaluation of our products before committing to purchasing them, which can require a significant upfront investment by us. The sales cycle for these products from initial contact through shipment varies significantly, is difficult to predict and can last more than a year. If we fail to anticipate the likelihood, costs, or timing associated with sales of these products, our business and results of operations would be harmed.

Our orders are generally subject to rescheduling without penalty or cancellation without penalty other than reimbursement for certain labor and material costs. We, from time to time, experience order rescheduling and cancellations, which can result in fluctuation of our operating results from period to period.

We operate in highly competitive industries.

The markets for our products are intensely competitive, and we believe that competition from both new and existing competitors will increase in the future. Principal competitive factors include: historical customer relationships, product quality, performance and price, breadth of product line, manufacturing capabilities and customer service and support.

We face risks relating to changes in the demand for our products.

During periods of rapid growth or decline in demand for our products, we face significant challenges in maintaining adequate financial and business controls, management processes, information systems, procedures for training and managing our workforce, and in appropriately sizing our supply chain infrastructure and facility, workforce, and other components of our business on a timely basis. If we do not adequately meet these challenges during periods of increasing or declining demand, our gross margins and earnings may be negatively impacted.

Our operating results have fluctuated and will likely continue to fluctuate from quarter to quarter.

Our quarterly operating results have fluctuated in the past and will likely continue to vary from quarter to quarter. Some of the factors that may influence our operating results include the following: changes in customer demand; demand for products that use semiconductors; market acceptance of our products and those developed by our customers; competition; the timing, cancellation or delay of customer orders, shipments and acceptances; and product development costs, including increased research, development, engineering and marketing expenses associated with our introduction of new products and product enhancements.

We face risks related to the disruption of our manufacturing facility.

We have a single manufacturing facility. This location may be subject to disruption for a variety of reasons, such as natural or man-made disasters, terrorist activities, disruptions of our information technology resources, and utility interruptions. Such disruptions may cause delays in shipping our products, which could result in the loss of business or customer trust, adversely affecting our business and operating results.

Our products are subject to potential product liability claims which, if successful, could have a material adverse effect on our business, financial condition and results of operations.

We currently maintain insurance against product liability claims. However, our insurance coverage may not continue to be available on terms that we accept, if at all. This insurance coverage also may not adequately cover liabilities that we incur. Further, if our products are defective, we may be required to recall or redesign these products. A successful claim against us that exceeds our insurance coverage level or that is not covered by insurance, or any product recall, could have a material adverse effect on our business, financial condition and results of operations.

Net average selling prices of our products may decrease over time, which could have a material adverse effect on our revenues and profitability.

It is not uncommon for the average selling price of a given product to decrease over time as production volumes increase, competing products are developed or new technologies featuring higher performance or lower cost emerge. To combat the negative effects that erosion of average selling prices have had in the past and may in the future have on our net revenues, we attempt to actively manage the prices of our existing products and regularly introduce new process technologies and products in the market that exhibit higher performance, that are in demand, or that lower manufacturing cost.

If we are unable to protect our intellectual property effectively, our financial condition and results of operations could be adversely affected.

Patents and other proprietary rights are essential to us and our ability to compete effectively with other companies is dependent upon the proprietary nature of our technologies. We also rely upon trade secrets, know-how, continuing technological innovations and licensing opportunities to develop, maintain and strengthen our competitive position. We cannot be certain that any pending or future patent applications will result in issued patents, that any current or future patents issued will not be challenged, invalidated or circumvented or that the rights granted thereunder will provide a competitive advantage to us or prevent competitors from entering markets which we currently serve. In addition, we may have to take legal action in the future to protect our trade secrets or know-how or to defend ourselves against claimed infringement of the rights of others. Any legal action of that type could be costly and time consuming to us despite insurance policies owned by us and we cannot be certain of the outcome. The invalidation of key patents or proprietary rights which we own or an unsuccessful outcome in lawsuits to protect our intellectual property could have a material adverse effect on our financial condition and results of operations.

We may infringe on the intellectual property rights of others.

Our commercial success depends, in part, upon us not infringing on the intellectual property rights owned by others. A number of our competitors and other third parties have been issued patents and may have filed patent applications or may obtain additional patents and proprietary rights for technologies similar to those used by us in our products. Some of these patents may grant very broad protection to the owners of the patents. We cannot determine with certainty whether any existing third-party patents or the issuance of any third-party patents would require us to alter our technology, obtain licenses or cease certain activities. We may become subject to claims by third parties that our technology infringes their intellectual property rights due to the growth of products in our target markets, the overlap in functionality of these products and the prevalence of products.

Interruptions, delays or cost increases affecting our materials, parts, equipment or subcontractors may impair our competitive position.

Our manufacturing operations depend upon us obtaining adequate supplies of materials, parts and equipment on a timely basis from third parties. Our results of operations could be adversely affected if we are unable to obtain adequate supplies of materials, parts and equipment in a timely manner, or if the costs of materials, parts or equipment increase significantly. From time to time, suppliers may extend lead times, limit supplies or increase prices due to capacity constraints or other factors. If any such suppliers experience financial difficulties, we could be adversely affected. Although we generally use materials, parts and equipment available from multiple suppliers, we have a limited number of suppliers for some materials, parts and equipment. While we believe that alternate suppliers for these materials, parts and equipment are available, an interruption or termination of supply sources could materially impair our operations.

Our products could contain defects, which would increase our costs and seriously harm our business, operating results, financial condition and customer relationships.

Many of our products are inherently complex in design and, in some cases, require ongoing regular maintenance. Further, the manufacture of these products often involves a highly complex and precise process and the utilization of specially qualified components that conform to stringent specifications. As a result of the technical complexity of these products, design defects, changes in our or our suppliers' manufacturing processes or the inadvertent use of defective or nonconforming materials by us or our suppliers could adversely affect our manufacturing yields and product reliability. This could in turn harm our business, operating results, financial condition and customer relationships.

We are exposed to risks associated with an uncertain global economy.

Uncertain global economic and business conditions, along with uncertainties in the financial markets, national debt and fiscal concerns in various regions, pose challenges to the industries in which we operate. Markets for semiconductors depend largely on customer spending and demand for electronic products. Economic uncertainty and related factors exacerbate negative trends in business and consumer spending and may cause certain customers to push out, cancel, or refrain from purchasing equipment or services, which may have an adverse impact on our revenues, results of operations and financial condition. Uncertain market conditions, difficulties in obtaining capital, or reduced profitability may also cause some customers to scale back operations, exit businesses, merge with other manufacturers, or file for bankruptcy protection and potentially cease operations, which can also result in lower sales, additional inventory or bad debt expense for us.

Instability in international markets or foreign currency fluctuations could adversely affect our results of operations.

We face currency and other risks associated with our international sales. We are exposed to foreign currency exchange rate fluctuations due to transactions denominated primarily in United States dollars which may potentially reduce the Canadian dollars we receive for sales and/or increase the Canadian dollars we report as expenses, thereby affecting our reported revenues, profit margins and results of operations. Fluctuations between the currencies in which we do business will cause foreign currency transaction gains and losses. We cannot predict the effects of currency exchange rate fluctuations upon its future operating results because of the variability of currency exposures and the volatility of currency exchange rates.

The risks inherent in our international operations may adversely impact our results of operations.

We anticipate that we will derive a significant portion of our revenues from operations in the United States and Asia. As we continue to expand internationally, we will need to retain and train our distributors, hire, train and retain qualified personnel for our direct sales efforts and train other personnel in countries where language, cultural or regulatory impediments may exist. We cannot ensure that distributors, regulators or other government agencies outside Canada will accept our products, services and business practices. Current or future trade, social and environmental regulations or political issues could restrict the supply of resources used in production or increase its costs. Compliance with such regulations is costly. Failure to comply with applicable legal and regulatory obligations could result in the disruption of our manufacturing, shipping and sales activities. Our international sales operations expose us and our representatives, agents and distributors to risks inherent in operating in foreign jurisdictions.

We may engage in future acquisitions or divestitures that could disrupt our business, cause dilution to our shareholders and harm our financial condition and operating results.

We may pursue acquisitions or sales of assets, products or businesses that we believe are complementary to our existing business and/or to enhance our market position or expand our product portfolio. There is a risk that we will not be able to identify suitable acquisition candidates available for sale at reasonable prices, complete any acquisition, or successfully integrate any acquired product or business into our operations. If we do not successfully address these risks or any other problems encountered in connection with an acquisition or sale of assets, the acquisition or divestiture transaction could have a material adverse effect on our business, results of operations and financial condition.

The market price of our common shares has fluctuated and may continue to fluctuate for reasons over which we have no control.

The stock market has from time to time experienced, and is likely to continue to experience, extreme price and volume fluctuations. Prices of securities of technology companies may sometimes be especially volatile and have fluctuated for reasons that are unrelated to the operating performance of the companies. Historically, the market price of the Common Shares has been subject to fluctuation and could continue to fluctuate due to a variety of factors.

We may not be able to maintain an active market for the Common Shares.

There may not be an active, liquid market for the Common Shares. There is no guarantee that an active trading market for the Common Shares will be maintained on the TSXV. Investors may not be able to sell their Common Shares quickly or at the latest market price if trading in the Common Shares is not active.

Our directors and officers may experience conflicts of interest.

Certain of our directors and officers are also directors and/or officers and/or shareholders of other technology companies. Such associations may give rise to conflicts of interest from time to time. Our directors are required by law to act honestly and in good faith with a view to uphold the best interests of the Company and to disclose any interest that they may have in any project or opportunity of the Company. If a conflict of interest arises at a meeting of the Board, any director in a conflict must disclose his or her interest and abstain from voting on such matter. In determining whether or not we will participate in any project or opportunity, the directors will primarily consider the degree of risk to which we may be exposed and its financial position at the time.

Key personnel may be difficult to attract and retain.

Our ability to maintain and grow our business is directly related to the service of our employees in each area of our business. Our future performance will be directly tied to our ability to hire, train, motivate and retain qualified personnel, including highly skilled technical, financial, managerial and sales and marketing personnel.

Competition for personnel in the technology marketplace is intense, and we cannot be certain that we will be successful in attracting and retaining such personnel at compensation levels consistent with our existing compensation and salary structure. If we are unable to hire sufficient numbers of employees with the experience and skills we need or to retain and motivate our existing employees, our business and results of operations would be harmed.

Breaches of our network security could expose us to losses.

We manage and store on our network systems various proprietary information and sensitive or confidential data relating to our operations. There has been an increasing incidence of unauthorized access to the computer networks of various technology companies, and we are not immune to attempted unauthorized access. Computer programmers and hackers may be able to gain unauthorized access to our network system and steal proprietary information, compromise confidential information, create system disruptions, or cause shutdowns. These parties may also be able to develop and deploy viruses, worms, and other malicious software programs that disrupt our operations and create security vulnerabilities. Attacks on our network systems could result in significant losses, compromise our competitive advantages and damage our reputation with customers.

We are subject to various environmental laws and regulations that could impose substantial costs upon us and may harm our business, operating results and financial condition.

Some of our operations use substances regulated under various federal, provincial, local, and international laws governing the environment, including those relating to the storage, use, discharge, disposal, labeling, and human exposure to hazardous and toxic materials. We could incur substantial costs, including cleanup costs, fines and civil or criminal sanctions, third-party property damage or personal injury claims, or our products could be enjoined from entering certain jurisdictions, if we were to violate or become liable under environmental laws or if our operations become non-compliant with environmental laws.

DIVIDENDS

Since incorporation, we have not paid any dividends on our Common Shares and do not anticipate doing so in the foreseeable future. Our current policy is to reinvest earnings to finance the growth of our business. The declaration and payment of dividends on the Common Shares is at the discretion of the Board. The Company's dividend policy will be reviewed from time to time by the Board in the context of earnings, financial condition and other relevant factors.

DESCRIPTION OF CAPITAL STRUCTURE

Our authorized capital consists of an unlimited number of Common Shares, of which, at February 15, 2018, 110,861,218 were issued and outstanding, and an unlimited number of preferred shares (the "**Preferred Shares**"), which may be issued in series, of which none were issued and outstanding as at February 15, 2018. The Board is authorized to determine the designation, rights and restrictions to be attached to the Preferred Shares upon issuance.

Holders of Common Shares are entitled to receive notice of any meeting of shareholders and to attend and vote at those meetings, except those meetings at which only the holders of shares of another class or of a particular series are entitled to vote. Each Common Share entitles its holder to one vote. Subject to the rights of the holders of Preferred Shares, the holders of Common Shares are entitled to receive on a proportionate basis such dividends as the Board may declare out of funds legally available therefor. In the event of the dissolution, liquidation, winding up or other distribution of our assets, the holders of the Common Shares are entitled to receive on a proportionate basis all of our assets remaining after payment of all of our liabilities, subject to the rights of holders of Preferred Shares. The Common Shares carry no pre-emptive or conversion rights.

MARKET FOR SECURITIES

Our Common Shares are listed on the TSXV, and trade under the symbol "PHO". On February 14, 2018, the closing sale price of the Common Shares on the TSXV was \$1.84.

Trading Price and Volume

The following table sets out the high and low sale prices per Common Share and the volume of Common Shares traded for the periods indicated.

Month	High (\$)	Low (\$)	Total Monthly Volume
January 2018	\$2.12	\$1.81	7,883,600
December 2017	\$1.96	\$1.72	3,549,900
November 2017	\$1.97	\$1.65	5,290,000
October 2017	\$1.87	\$1.41	8,057,800
September 2017	\$1.51	\$1.33	2,980,900
August 2017	\$1.49	\$1.29	4,603,300
July 2017	\$1.46	\$1.27	2,219,000
June 2017	\$1.58	\$1.32	6,143,100
May 2017	\$1.61	\$1.24	7,780,900
April 2017	\$1.74	\$1.43	7,805,700
March 2017	\$1.54	\$1.22	9,849,200
February 2017	\$1.53	\$1.11	6,295,900
January 2017	\$1.29	\$0.98	5,734,600
December 2016	\$1.03	\$0.78	6,729,167
November 2016	\$0.78	\$0.69	3,798,724
October 2016	\$0.75	\$0.68	10,196,818
September 2016	\$0.74	\$0.66	8,755,941
August 2016	\$0.81	\$0.66	3,763,248
July 2016	\$0.78	\$0.65	3,805,452
June 2016	\$0.86	\$0.67	4,619,766
May 2016	\$0.79	\$0.71	2,093,819
April 2016	\$0.82	\$0.71	2,843,157
March 2016	\$0.79	\$0.69	2,405,167
February 2016	\$0.71	\$0.64	1,685,009
January 2016	\$0.69	\$0.54	2,891,663

Prior Sales

Other than: (i) the granting of stock options of the Company (the “Options”); and (ii) the granting of restricted share units of the Company (the “RSUs”), there were no issuances of Common Shares during the fiscal year ended December 31, 2016, except as otherwise disclosed herein.

Photon Control Options

The following table summarizes the number of Options granted by Photon Control during the fiscal year ended December 31, 2016:

Date of Issuance	Price per Option	Number of Options
January 11, 2016	\$0.65	10,000
March 14, 2016	\$0.70	10,000
March 21, 2016	\$0.73	10,000
March 29, 2016	\$0.74	10,000
May 3, 2016	\$0.71	1,717,000
May 9, 2016	\$0.71	10,000
May 19, 2016	\$0.73	10,000
May 24, 2016	\$0.74	10,000
June 13, 2016	\$0.84	10,000
July 21, 2016	\$0.67	270,000
August 10, 2016	\$0.74	10,000
August 15, 2016	\$0.76	10,000
August 29, 2016	\$0.69	10,000
September 12, 2016	\$0.70	10,000
October 3, 2016	\$0.73	10,000
November 3, 2016	\$0.71	540,000
November 28, 2016	\$0.74	10,000

Photon Control RSUs

The following table summarizes the number of RSUs granted by Photon Control during the fiscal year ended December 31, 2016:

Date of Issuance	Number of RSUs
May 3, 2016	645,000
June 27, 2016	100,000
July 21, 2016	129,000
November 1, 2016	258,000

DIRECTORS AND EXECUTIVE OFFICERS

The table set forth below lists the directors and executive officers of the Company as at February 15, 2018, indicating their name, municipalities of residence, their respective positions and offices held with the Company, the length of service and their principal occupations.

Each director is elected at our annual meeting of shareholders to serve until the next annual meeting or until a successor is elected or appointed, unless such director resigns or is removed earlier. To the knowledge of the Company, the directors and executive officers as a group, beneficially own, directly or indirectly, or exercise control or direction over 433,875 Common Shares (not including Common Shares issuable upon the exercise of Options or unvested RSUs), representing as of February 15, 2018 approximately 0.39% of the issued and outstanding Common Shares.

Name and Place of Residence	Principal Occupation	Director and/or Officer Since	Common Shares Beneficially Owned	Percentage of Common Shares Owned ⁽⁴⁾
Charles F. Cargile ⁽¹⁾⁽²⁾⁽³⁾ California, U.S.A. <i>Director</i>	CEO, Sunworks, Inc.	March 31, 2017	Nil	Nil
Scott B. Edmonds British Columbia, Canada <i>Director, CEO & President</i>	Director, CEO & President, Photon Control	March 31, 2017	108,000	0.10%
Michele Klein ⁽³⁾ California, U.S.A. <i>Director</i>	CEO, Jasper Ridge Inc.	October 23, 2017	Nil	Nil
D. Neil McDonnell ⁽²⁾⁽³⁾ British Columbia, Canada <i>Director & Chair of the Board</i>	Independent businessman	November 2, 2016	69,875	0.06%
Ronan McGrath ⁽¹⁾⁽³⁾ Ontario, Canada <i>Director</i>	Consultant, corporate director & private investor	July 20, 2016	213,000	0.19%
Michael Torok ⁽¹⁾⁽³⁾ Massachusetts, U.S.A. <i>Director</i>	Co-founder and managing director of JEC Capital Partners, LLC	November 2, 2016	43,000	0.04%
Daniel Lee British Columbia, Canada <i>CFO</i>	CFO, Photon Control	July 15, 2017	Nil	Nil

(1) Member of the Audit Committee.

(2) Member of the Compensation Committee.

(3) Member of the Corporate Governance and Nominating Committee.

(4) Based on 110,861,218 Common Shares issued and outstanding as of February 15, 2018.

Information about each of our directors and executive officers, including his or her respective principal occupation during at least the five years preceding December 31, 2016, are as follows:

D. Neil McDonnell, Director, Board Chair

Mr. McDonnell has been President and CEO at Javini Holdings Co. since June 2010. He is currently chair of Agreement Express, ResponseTek, edp Software and a director of Symbility Solutions. A recognized leader in the Canadian technology space, he was a director of QHR Technologies Inc. from June 2015 to October 2016 (acquired by George Weston) and CEO of Wurldtech Security Technologies Inc. from July 2011 to May 2015 (acquired by GE). He has previously held senior positions including audit chair and director of Titanstar Properties Inc., chair and CEO of TeraSpan Networks Inc., Chief Operating Officer of TIR Systems Limited (acquired by The

Royal Philips Company), Chief Operating Officer of Mobile Data Solutions Inc. (acquired by Vista Equity Partners), and CEO of Intrinsic Technologies Corporation. Mr. McDonnell holds an MBA from the University of British Columbia and a Bachelor of Commerce from the University of Toronto.

Charles F. Cargile, Director, Compensation Committee Chair

Mr. Cargile has been the CEO and a director of Sunworks Inc. (NASDAQ: SUNW) since 2017 and a director since 2016. Sunworks is a premier provider of high performance solar power solutions for agriculture, commercial, industrial, public works and residential markets. Prior to his role at Sunworks Inc., Mr. Cargile was the CFO of Newport Corp., a position he held from 2000 until 2016, until Newport Corp. was acquired by MKS Instruments, Inc. for approximately \$1 billion in 2016. Mr. Cargile has an extensive background in financial and strategic planning, public company M&A, operations, information technology and capital structure management. Prior to his role at Newport Corp., he worked at York International Corporation and Flowserve Corporation. Mr. Cargile holds a Professional Director Certification from the American College of Corporate Directors, a Bachelor of Science in Accounting from Oklahoma State University and an MBA from the Marshall School of Business at the University of Southern California.

Scott Edmonds, Director, President & CEO

Mr. Edmonds has been a Director and the President & CEO of Photon Control Inc. since March 2017. He was an independent consultant and corporate director from October 2014 to March 2017. From 2007 to 2014 he was first the CFO (2007 - 2009) and then the CEO (2010-2014) of Webtech Wireless Inc. a supplier of hardware and software-as-a-service solutions to fleet managers across North America. Prior to his role at Webtech Wireless Inc., Mr. Edmonds held senior management positions with two other Vancouver high tech companies after a ten-year career with The Walt Disney Company in France and Asia. Mr. Edmond's board experience includes roles with hardware manufacturers Vecima Networks Inc. and AgJunction Inc. He qualified as a Chartered Accountant, holds the ICD.d designate, Mr. Edmonds earned a degree in finance from Bishop's University and completed the Executive Development Program at the Kellogg School of Management at Northwestern University.

Michele Klein, Director

Ms. Klein has been the CEO and Director of Jasper Ridge Inc., a technology company developing equipment to improve human vision since 2010. Prior to her role at Jasper Ridge Inc., Ms. Klein was a Senior Director of Applied Ventures, LLC, the venture capital arm of Applied Materials, Inc. (AMAT), where she recommended and managed investments in energy storage and solar energy representing Applied on the boards of seven technology companies. Ms. Klein cofounded and led Boxer Cross Inc. as CEO until its acquisition by Applied Materials Inc. in 2003, and High Yield Technology Inc. until its acquisition by Pacific Scientific Ltd. Ms. Klein is a director of Gridtential Energy Inc., is an advisory board member of Illuminate Ventures, and was the chair of Stanford Women on Boards. Ms. Klein earned a Bachelor of Science from the University of Illinois and an MBA from the Stanford Graduate School of Business.

Ronan McGrath, Director, Audit Committee Chair

Mr. McGrath is an investor and corporate director. He also consults on strategic issues to major technology companies. He is a director of Photon Control Inc since July 2016 and chairs the audit committee. He is lead director of Symbility Inc of Toronto since November 2017 and is also Audit Committee chair. He is the former Chief Information Officer of Rogers Communications Inc., and President of Rogers Shared Services. He was responsible for the team that restructured the alliance between Rogers and Microsoft in July 1999. Prior to his role at Rogers, Mr. McGrath was the Chief Information Officer of Canadian National Railway Company, responsible for the complete rebuild of CN's information technology capability, the restructuring of the company, and the development of the initial strategic review of the company's future that led to privatization of the company. He was awarded the Chief Information Officer of the Year award in Canada in 1995, has served in the past on the advisory boards of a number of technology companies, including Compaq Computer Corporation and Lotus Development Corporation, and is a past Chair of the Information Technology Association of Canada (ITAC). Mr. McGrath, a Chartered Accountant, is a graduate in Business Administration at Trinity College, Dublin.

Michael Torok, Director, Governance Committee Chair

Mr. Torok has been the co-founder and managing director of JEC Capital Partners, LLC since 2009, a technology-focused investment company with offices in the United States and Germany. He was previously the CFO of Integrated Dynamics Engineering, Inc., which successfully leveraged its core technology to grow rapidly in the semiconductor equipment industry before being acquired by Aalberts Industries N.V. (AMS: AI) in 2008. Prior to his role at Integrated Dynamics Engineering, Inc., Mr. Torok held various positions at PricewaterhouseCoopers. Mr. Torok holds a bachelor's degree and a master's degree in finance from Boston College.

Daniel Lee, CFO

Mr. Lee has been the CFO of Photon Control since July 2017. Mr. Lee joined the Company in April 2017, serving as VP Finance until his appointment as CFO. From 2015 to 2016, Mr. Lee served as Director of Finance at BSM Technologies, a provider of remote monitoring, fleet and asset management, fleet diagnostic, driver compliance and automatic vehicle location solutions, following the merger of equals transaction with Webtech Wireless Inc. Mr. Lee was instrumental in the merger of equals transaction between the two companies which was completed in September 2015. Prior to the merger, Mr. Lee served as Director of Finance at Webtech Wireless from 2011 to 2015. Mr. Lee has 15 years of progressive finance and accounting experience, with a focus on Canadian publicly listed technology related companies. Mr. Lee is a Chartered Accountant and earned his Bachelor of Business Administration degree from Simon Fraser University.

Cease Trade Orders, Bankruptcies, Penalties or Sanctions

To the best of the Company's knowledge, none of the directors or executive officers of the Company is, as at the date of this AIF, or was within 10 years before the date of this AIF, a director, chief executive officer or chief financial officer of any company (including the Company) that:

- a) was subject to a cease trade order, an order similar to a cease trade order or an order that denied the relevant company access to any exemption under securities legislation which, in each case, was in effect for a period of more than 30 consecutive days (each, an "order") that was issued while the director or executive officer was acting in the capacity as director, chief executive officer or chief financial officer, or
- b) was subject to an order that was issued after the director or executive officer ceased to be a director, chief executive officer or chief financial officer and which resulted from an event that occurred while that person was acting in the capacity as director, chief executive officer or chief financial officer.

No director or executive officer of the Company or a shareholder holding a sufficient number of securities of the Company to affect materially its control:

- a) is, as at the date of this AIF, or has been within the 10 years before the date of the AIF, a director or executive officer of any company (including the Company) that, while that person was acting in that capacity, or within a year of that person ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets;
- b) has, within the 10 years before the date of this AIF, become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency, or become subject to or instituted any proceedings, arrangement or compromise with creditors, or had a receiver, receiver manager or trustee appointed to hold the assets of the director, executive officer or shareholder;
- c) has been subject to:
 - i) any penalties or sanctions imposed by a court relating to securities legislation or by a securities regulatory authority or has entered into a settlement agreement with a securities regulatory authority; or
 - ii) any other penalties or sanctions imposed by a court or regulatory body that would likely be considered important to a reasonable investor in making an investment decision.

Conflicts of Interest

Certain of the directors and officers of Photon Control also serve, or may serve in the future, as directors and/or officers of other companies involved in technology based companies; consequently, there exists the possibility for these directors and officers to be in a position of conflict. Any decision made by any of these directors and officers involving Photon Control will be made in accordance with their duties and obligations to deal fairly and in good faith with a view to the best interests of Photon Control and its shareholders. In addition, each of the directors is required to declare and refrain from voting on any matter in which these directors may have a conflict of interest in accordance with the procedures set forth in applicable laws.

PROMOTERS

The Company has not engaged a promoter during the past two financial years.

LEGAL PROCEEDINGS AND REGULATORY ACTIONS

Legal Proceedings

The Company was engaged in litigation with Photon R&D in the latter half of 2016.

After the Company became aware of the Unauthorized Transfer (as defined in General Development of the Business - Three Year History - 2016) on June 3, 2016, the Company's then CEO and director, Christopher Weston resigned. At that time, he was a shareholder of Photon R&D. David Dueck, who was Chair of the Board at that time and a shareholder and director of Photon R&D also resigned following the Unauthorized Transfer. On July 25, 2016, the \$4.5 million plus interest was paid back to the Company by Photon R&D.

As a result of the resignations of Messrs. Weston and Dueck, the remaining three Board members appointed Michael Goldstein who was a director at the time, Chair of the Board and soon afterwards, interim CEO.

On August 23, 2016, the Company commenced litigation proceedings in the Supreme Court of British Columbia against Photon R&D, DCD Management Ltd. ("DCD"), Michael Weston, Christopher Weston, David C. Dueck and Todd Wilke in order to clarify ownership of certain IP and as a result of an alleged breach of the terms of royalty arrangements related to that IP. Also, in August 2016, the Company terminated certain other non-arm's-length arrangements including agreements with DCD (a company controlled by former Board Chair David C. Dueck). DCD provided financial, payroll and information technology services according to a services agreement, the costs of which were reported as an operating expense.

Following the Unauthorized Transfer, the Company added three new independent directors to the Board: Ronan McGrath on July 21, 2016 and Michael Torok and Neil McDonnell on November 2, 2016. At the earliest meeting of the expanded Board, it was determined to be in the best interests of the Company to attempt to resolve the litigation issues through settlement in order to avoid long term negative effects on the Company's staff, customers and financial results.

In April 2017, following a period of negotiation, all disputes with Photon R&D and its directors and officers were resolved with the Company clarifying ownership of all IP of interest to the Company, and acquiring the fixed assets, inventory and engineering personnel of Photon R&D, all pursuant to the terms of the Settlement Agreement. All transferred personnel became employed by the Company under new employment agreements.

As a result of a legal action unrelated to the R&D matter, two of the members of the Board at the time of the Unauthorized Transfer resigned from the Board on March 31, 2017. Also on March 31, 2017, the Interim CEO, who was also a director at the time of the Unauthorized Transfer, resigned from both positions and the Company appointed Charles Cargile as a director, and Scott Edmonds as a director as well as President and CEO.

Regulatory Actions

There were no regulatory actions during the fiscal year ended December 31, 2016, and as of the date of this AIF, there have been no penalties or sanctions imposed against Photon Control (a) by a court relating to securities legislation or by a securities regulatory authority; or (b) by a court or regulatory body that would likely be considered important to a reasonable investor making an investment decision in Photon Control. Photon Control has not entered into any settlement agreements with a court relating to securities legislation or with a securities regulatory authority during the fiscal year ended December 31, 2016 and as of the date of this AIF.

INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS

None of the following persons have had any direct or indirect material interest in any transaction of the Company within the three most recently completed financial years or during the current financial year that has materially affected or is reasonably expected to materially affect the Company:

- a director or executive officer of the Company;
- a person or corporation that is the direct or indirect beneficial owner of, or who exercises control or direction over, more than 10% of any class or series of the outstanding voting securities of the Company; and
- an associate or affiliate of any of the persons or companies referred to in this section.

REGISTRAR AND TRANSFER AGENT

The Registrar and Transfer Agent for the Common Shares in Canada is the Computershare Trust Company of Canada, 510 Burrard Street, 3rd Floor, Vancouver, British Columbia, V6C 3B9.

MATERIAL CONTRACTS

Other than entering into the Settlement Agreement on April 7, 2017, the Company did not enter into any material contracts during the year ended December 31, 2016 or subsequently other than in the ordinary course of business.

EXPERTS

Our consolidated financial statements at December 31, 2016 have been audited by MNP LLP, independent registered Chartered Professional Accountants, our external auditors. As set forth in its report, MNP LLP has confirmed with respect to the Company that is independent within the meaning of the relevant rules and related interpretations prescribed by the relevant professional bodies in Canada and any applicable legislation or regulations.

ADDITIONAL INFORMATION

Additional information about Photon Control may be found on the System for Electronic Analysis and Retrieval (“SEDAR”) at www.sedar.com including directors’ and officers’ remuneration and indebtedness, principal holders of the Company’s securities and securities authorized for issuance under equity compensation plans, is contained in the Company’s Information Circular for its most recent annual meeting of shareholders. Additional information is also provided in the Company’s audited financial statements and related management discussion and analysis for the years ended December 31, 2016 and 2015.

Further additional information about Photon Control, including copies of these documents may be found on Photon Control’s website at www.photon-control.com and under the Company’s profile on SEDAR at www.sedar.com.

AUDIT COMMITTEE

Audit Committee Charter

Photon Control’s audit committee (the “**Audit Committee**”) is responsible for monitoring Photon Control’s systems and procedures for financial reporting and internal control, reviewing certain public disclosure documents and monitoring the performance and independence of Photon Control’s external auditors. The Audit Committee is also responsible for reviewing Photon Control’s annual audited consolidated financial statements, unaudited interim consolidated financial statements and management’s discussion and analysis of financial results of operations for both annual and interim consolidated financial statements and review of related operations prior to their approval by the full Board.

The Audit Committee has a charter that sets out its mandate and responsibilities. A copy of the charter is attached as Schedule “A” to this AIF.

Composition of the Audit Committee

The current members of the Audit Committee are Messrs. McGrath, Cargile and Torok. All members of the Audit Committee are independent directors in accordance with National Instrument 52-110 - Audit Committees (“NI 52-110”) and are “financially literate” within the meaning of Section 1.6 of NI 52-110, as a result of their prior financial experience in a management capacity or as members of audit committees of public companies.

Relevant Education and Experience

Set out below is a general description of the education and experience of each current Audit Committee member which is relevant to the performance of his or her responsibilities as an Audit Committee member, as set out in Form 52-110F1 - Audit Committee Information Required in an AIF. See “Directors and Executive Officers” above for additional biographical details.

Ronan McGrath (Chair)

Mr. McGrath is the former Chief Information Officer of Rogers Communications Inc., former President of Rogers Shared Services, and the former Chief Information Officer of Canadian National Railway Company. Mr. McGrath is currently Lead Director and Audit Chair of Symbility Solutions Inc (TSX.V:SY). He has also served in the past on the advisory boards of a number of technology companies, including Compaq Computer Corporation and Lotus Development Corporation, and is a past Chair of the Information Technology Association of Canada (ITAC). He previously worked in various capacities for Arthur Andersen & Co in various European countries and Canada. He is a graduate in Business Administration from Trinity College Dublin and a Chartered Accountant.

Charles F. Cargile

Mr. Cargile is the CEO and a director of Sunworks Inc. (NASDAQ: SUNW). Prior to his role at Sunworks Inc., Mr. Cargile was the CFO of Newport Corp., a position he held for 16 years. Mr. Cargile has 25 years of public company experience and has an extensive background in financial and strategic planning, public company M&A, operations, information technology and capital structure management. Prior to his role at Newport Corp., he worked at York International Corporation in several officer positions, including Vice President of Finance and Corporate Development and at Flowserve Corporation most recently as Principal Accounting Officer and Corporate Controller. Mr. Cargile is the Lead Independent Director of Netlist Inc. and a Director of Reed's, Inc. He holds a Professional Director Certification from the American College of Corporate Directors, a Bachelor of Science in Accounting from Oklahoma State University and an MBA from the Marshall School of Business at the University of Southern California.

Michael Torok

Mr. Torok is the co-founder and managing director of JEC Capital Partners, LLC, a technology-focused investment company with offices in the United States and Germany. He was previously the CFO of Integrated Dynamics Engineering, Inc. Prior to his role at Integrated Dynamics Engineering, Inc., Mr. Torok held various positions at PricewaterhouseCoopers. Mr. Torok holds a bachelor's degree and a master's degree in finance from Boston College.

Audit Committee Oversight

The directors of the Company have accepted all recommendations of the Audit Committee since the commencement of the most recently completed financial year regarding the recommendation to nominate or compensate an external auditor.

Pre-Approval Policies and Procedures

The Audit Committee shall have authority and responsibility for pre-approval of all non-audit services to be provided to the Company or its subsidiary entities by the external auditors or the external auditors of the Company's subsidiary entities, unless such pre-approval is otherwise appropriately delegated or if appropriate specific policies and procedures for the engagement of non-audit services have been adopted by the Audit Committee.

External Auditor Service Fees

The aggregate fees billed by the Company's external auditors in each of the last two fiscal years for audit fees are as follows:

Financial Year Ending	Audit Fees	Audit Related Fees	Tax Fees	All Other Fees
December 31, 2016	\$72,000	Nil	\$4,358	Nil
December 31, 2015	\$69,615	Nil	\$4,443	Nil

SCHEDULE "A" PHOTON CONTROL INC. AUDIT COMMITTEE MANDATE

As of February 2018

1. Introduction

The Audit Committee (the "**Committee**" or the "**Audit Committee**") of Photon Control Inc. (the "**Company**") is a committee of the Board of Directors (the "**Board**") of the Company. The Committee shall oversee the accounting and financial reporting practices of the Company and the audits of the Company's financial statements and exercise the responsibilities and duties set out in this Mandate.

2. Membership

Number of Members

The Committee shall be composed of three or more members of the Board.

Independence of Members

Each member of the Committee must be independent, subject to any exemptions or relief that may be granted from such requirement. "Independent" shall have the meaning, as the context requires, given to it in National Instrument 52-110 Audit Committees, as may be amended from time to time.

Chair

At the time of the annual appointment of the members of the Audit Committee, the Board shall appoint a Chair of the Audit Committee. The Chair shall be a member of the Audit Committee, preside over all Audit Committee meetings, coordinate the Audit Committee's compliance with this Mandate, work with management to develop the Audit Committee's annual work-plan and provide reports of the Audit Committee to the Board.

Financial Literacy of Members

At the time of his or her appointment to the Committee, each member of the Committee shall have, or shall acquire within a reasonable time following appointment to the Committee, the ability to read and understand a set of financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and complexity of the issues that can reasonably be expected to be raised by the Company's financial statements.

Term of Members

The members of the Committee shall be appointed annually by the Board. Each member of the Committee shall serve at the pleasure of the Board until the member resigns, is removed, or ceases to be a member of the Board. Unless a Chair is elected by the Board, the members of the Committee may designate a Chair by majority vote of the full Committee membership.

3. Meetings

Number of Meetings

The Committee may meet as many times per year as necessary to carry out its responsibilities.

Quorum

No business may be transacted by the Committee at a meeting unless a quorum of the Committee is present. A majority of members of the Committee shall constitute a quorum.

Calling of Meetings

The Chair, any member of the Audit Committee, the external auditors, the Chairman of the Board, or the Chief Executive Officer or the Chief Financial Officer may call a meeting of the Audit Committee by notifying the Company's Corporate Secretary who will notify the members of the Audit Committee. The Chair shall chair all Audit Committee meetings that he or she attends, and in the absence of the Chair, the members of the Audit Committee present may appoint a chair from their number for a meeting.

Minutes; Reporting to the Board

The Committee shall maintain minutes or other records of meetings and activities of the Committee in sufficient detail to convey the substance of all discussions held. Upon approval of the minutes by the

Committee, the minutes shall be circulated to the members of the Board. However, the Chair may report orally to the Board on any matter in his or her view requiring the immediate attention of the Board.

Attendance of Non-Members

The external auditors are entitled to attend and be heard at each Audit Committee meeting. In addition, the Committee may invite to a meeting any officers or employees of the Company, legal counsel, advisors and other persons whose attendance it considers necessary or desirable in order to carry out its responsibilities.

Meetings without Management

The Committee shall hold unscheduled or regularly scheduled meetings, or portions of meetings, at which management is not present.

Procedure

The procedures for calling, holding, conducting and adjourning meetings of the Committee shall be the same as those applicable to meetings of the Board.

Access to Management

The Committee shall have unrestricted access to the Company's management and employees and the books and records of the Company.

4. Duties and Responsibilities

The Committee shall have the functions and responsibilities set out below as well as any other functions that are specifically delegated to the Committee by the Board and that the Board is authorized to delegate by applicable laws and regulations. In addition to these functions and responsibilities, the Committee shall perform the duties required of an audit committee by any exchange upon which securities of the Company are traded, or any governmental or regulatory body exercising authority over the Company, as are in effect from time to time (collectively, the "**Applicable Requirements**").

Financial Reports

(a) **General**

The Audit Committee is responsible for overseeing the Company's financial statements and financial disclosures. Management is responsible for the preparation, presentation and integrity of the Company's financial statements and financial disclosures and for the appropriateness of the accounting principles and the reporting policies used by the Company. The auditors are responsible for auditing the Company's annual consolidated financial statements and for reviewing the Company's unaudited interim financial statements.

(b) **Review of Annual Financial Reports**

The Audit Committee shall review the annual consolidated audited financial statements of the Company, the auditors' report thereon and the related management's discussion and analysis of the Company's financial condition and results of operation ("**MD&A**"). After completing its review, if advisable, the Audit Committee shall approve and recommend for Board approval the annual financial statements and the related MD&A.

(c) **Review of Interim Financial Reports**

The Audit Committee shall review the interim consolidated financial statements of the Company, the auditors' review report thereon and the related MD&A. After completing its review, if advisable, the Audit Committee shall approve and recommend for Board approval the interim financial statements and the related MD&A.

(d) **Review Considerations**

In conducting its review of the annual financial statements or the interim financial statements, the Audit Committee shall:

- (i) meet with management and the auditors to discuss the financial statements and MD&A;
- (ii) review the disclosures in the financial statements;
- (iii) review the audit report or review report prepared by the auditors;

- (iv) discuss with management, the auditors and internal legal counsel (if any), as requested, any litigation claim or other contingency that could have a material effect on the financial statements;
 - (v) review the accounting policies followed and critical accounting and other significant estimates and judgements underlying the financial statements as presented by management;
 - (vi) review any material effects of regulatory accounting initiatives or off-balance sheet structures on the financial statements as presented by management, including requirements relating to complex or unusual transactions, significant changes to accounting principles and alternative treatments under Canadian GAAP;
 - (vii) review any material changes in accounting policies and any significant changes in accounting practices and their impact on the financial statements as presented by management;
 - (viii) review management's report on the effectiveness of internal controls over financial reporting;
 - (ix) review the factors identified by management as factors that may affect future financial results;
 - (x) review results of the Company's audit committee whistleblower hotline program; and
 - (xi) review any other matters, related to the financial statements, that are brought forward by the auditors, management or which are required to be communicated to the Audit Committee under accounting policies, auditing standards or Applicable Requirements.
- (e) **Approval of Other Financial Disclosures**
The Audit Committee shall review and, if advisable, approve and recommend for Board approval financial disclosure in a prospectus or other securities offering document of the Company, press releases disclosing, or based upon, financial results of the Company and any other material financial disclosure, including financial guidance provided to analysts, rating agencies or otherwise publicly disseminated.

Auditors

- (a) **General**
The Audit Committee shall be responsible for oversight of the work of the auditors, including the auditors' work in preparing or issuing an audit report, performing other audit, review or attest services or any other related work.
- (b) **Nomination and Compensation**
The Audit Committee shall review and, if advisable, select and recommend for Board approval the external auditors to be nominated and the compensation of such external auditor. The Audit Committee shall have ultimate authority to approve all audit engagement terms and fees, including the auditors' audit plan.
- (c) **Resolution of Disagreements**
The Audit Committee shall resolve any disagreements between management and the auditors as to financial reporting matters brought to its attention.
- (d) **Discussions with Auditors**
At least annually, the Audit Committee shall discuss with the auditors such matters as are required by applicable auditing standards to be discussed by the auditors with the Audit Committee.
- (e) **Audit Plan**
At least annually, the Audit Committee shall review a summary of the auditors' annual audit plan. The Audit Committee shall consider and review with the auditors any material changes to the scope of the plan.
- (f) **Quarterly Review Report**
The Audit Committee shall review a report prepared by the auditors in respect of each of the interim financial statements of the Company.

(g) **Independence of Auditors**

At least annually, and before the auditors issue their report on the annual financial statements, the Audit Committee shall obtain from the auditors a formal written statement describing all relationships between the auditors and the Company; discuss with the auditors any disclosed relationships or services that may affect the objectivity and independence of the auditors; and obtain written confirmation from the auditors that they are objective and independent within the meaning of the applicable Rules of Professional Conduct/Code of Ethics adopted by the provincial institute or order of chartered accountants to which the auditors belong and other Applicable Requirements. The Audit Committee shall take appropriate action to oversee the independence of the auditors.

(h) **Evaluation and Rotation of Lead Partner**

At least annually, the Audit Committee shall review the qualifications and performance of the lead partner(s) of the auditors and determine whether it is appropriate to adopt or continue a policy of rotating lead partners of the external auditors.

(i) **Requirement for Pre-Approval of Non-Audit Services**

The Audit Committee shall approve in advance any retainer of the auditors to perform any non-audit service to the Company that it deems advisable in accordance with Applicable Requirements and Board approved policies and procedures. The Audit Committee may delegate pre-approval authority to a member of the Audit Committee. The decisions of any member of the Audit Committee to whom this authority has been delegated must be presented to the full Audit Committee at its next scheduled Audit Committee meeting.

(j) **Approval of Hiring Policies**

The Audit Committee shall review and approve the Company's hiring policies regarding partners, employees and former partners and employees of the present and former external auditors of the Company.

(k) **Financial Executives**

The Committee shall review and discuss with management the appointment of key financial executives and recommend qualified candidates to the Board, as appropriate.

Internal Controls

(a) **General**

The Audit Committee shall review the Company's system of internal controls.

(b) **Establishment, Review and Approval**

The Audit Committee shall require management to implement and maintain appropriate systems of internal controls in accordance with Applicable Requirements, including internal controls over financial reporting and disclosure and to review, evaluate and approve these procedures. At least annually, the Audit Committee shall consider and review with management and the auditors:

- (i) the effectiveness of, or weaknesses or deficiencies in: the design or operation of the Company's internal controls (including computerized information system controls and security); the overall control environment for managing business risks; and accounting, financial and disclosure controls (including, without limitation, controls over financial reporting), non-financial controls, and legal and regulatory controls and the impact of any identified weaknesses in internal controls on management's conclusions;
- (ii) any significant changes in internal controls over financial reporting that are disclosed, or considered for disclosure, including those in the Company's periodic regulatory filings;
- (iii) any material issues raised by any inquiry or investigation by the Company's regulators;
- (iv) the Company's fraud prevention and detection program, including deficiencies in internal controls that may impact the integrity of financial information, or may expose the Company to other significant internal or external fraud losses and the extent of those losses and any disciplinary action in respect of fraud taken against management or other employees who have a significant role in financial reporting; and

- (v) any related significant issues and recommendations of the auditors together with management's responses thereto, including the timetable for implementation of recommendations to correct weaknesses in internal controls over financial reporting and disclosure controls.

Compliance with Legal and Regulatory Requirements

The Audit Committee shall review reports from the Company's Corporate Secretary and other management members on: legal or compliance matters that may have a material impact on the Company; the effectiveness of the Company's compliance policies; and any material communications received from regulators. The Audit Committee shall review management's evaluation of and representations relating to compliance with specific applicable law and guidance, and management's plans to remediate any deficiencies identified.

Audit Committee Hotline Whistleblower Procedures

The Audit Committee shall establish procedures for (a) the receipt, retention, and treatment of complaints received by the Company regarding accounting, internal accounting controls, or auditing matters; and (b) the confidential, anonymous submission by employees of the Company of concerns regarding questionable accounting or auditing matters. Any such complaints or concerns that are received shall be reviewed by the Audit Committee and, if the Audit Committee determines that the matter requires further investigation, it will direct the Chair of the Audit Committee to engage outside advisors, as necessary or appropriate, to investigate the matter and will work with management and the general counsel to reach a satisfactory conclusion.

Audit Committee Disclosure

The Audit Committee shall prepare, review and approve any audit committee disclosures required by Applicable Requirements in the Company's disclosure documents.

Delegation

The Audit Committee may, to the extent permissible by Applicable Requirements, designate a sub-committee to review any matter within this mandate as the Audit Committee deems appropriate.

5. Independent Advisors

The Audit Committee shall have the authority to retain external legal counsel, consultants or other advisors to assist it in fulfilling its responsibilities and to set and pay the respective compensation for these advisors without consulting or obtaining the approval of the Board or any Company officer. The Company shall provide appropriate funding, as determined by the Audit Committee, for the services of these advisors.

6. No Rights Created

This Mandate is a statement of broad policies and is intended as a component of the flexible governance framework within which the Audit Committee, functions. While it should be interpreted in the context of all applicable laws, regulations and listing requirements, as well as in the context of the Company's Notice of Articles and Articles, it is not intended to establish any legally binding obligations.

7. Mandate Review

The Committee shall review and update this Mandate annually and present it to the Board for approval.

Adopted: February 2018