

**PHOTON CONTROL INC.**

**MANAGEMENT DISCUSSION AND ANALYSIS**

For the year ending December 31, 2008

This Management Discussion and Analysis (“MD&A”) is dated March 24, 2009. MD&A should be read in conjunction with the Audited Consolidated Financial Statements and accompanying notes as at and for the years ended December 31, 2008 and 2007.

**Forward-Looking Statements**

This Management’s Discussion and Analysis (“MD&A”) contains forward-looking statements about Photon Control Inc. (the “Company”) and its business. Forward-looking statements are statements that are not historical facts and are generally, but not always, identified by the words “expects,” “anticipates,” “believes,” “intends,” “estimates,” “projects” and similar expressions, or that events or conditions “will,” “may,” “could” or “should” occur.

The forward-looking statements in this MD&A are subject to various risks, uncertainties and other factors that could cause the Company’s actual results or achievements to differ materially from those expressed in or implied by forward-looking statements. These risks, uncertainties and other factors include, without limitation, uncertainty as to the Company’s ability to successfully complete new product development along the timelines expected; the Company’s need for funds to achieve its goals and uncertainties as to the availability and cost of financing the Company; uncertainty as to the continued and future demand for the Company’s products; the Company’s present reliance on four major customers for the majority of its sales; the Company’s reliance on the financial health of the semiconductor industry for nearly all its sales; the accuracy and reliability of the factors and assumptions of the Company listed above; the development of competing technologies and the possibility of increased competition; the effect of slow growth in the Canadian, United States and international economies generally and other economic trends and conditions in the markets that the Company and its customers serve; the effect of the risks associated with technical difficulties or delays in product introductions, improvements, implementation, product development, product pricing or other initiatives of the Company and its competitors; factors that may result in a reduction in capital expenditures and/or delayed buying decisions affecting demand for the Company’s products; currency fluctuations, the possibility that the Company will pursue additional development projects or other business opportunities.

Forward-looking statements are based on the beliefs, opinions and expectations of the Company’s management at the time they are made, and the Company may but does not assume any obligation to update its forward-looking statements if those beliefs, opinions or expectations, or other circumstances, should change except as may be required by applicable securities laws. Readers should not place undue reliance on forward-looking statements. Precautionary statements made herein should be read as being applicable to all related forward-looking statements wherever they appear in this MD&A. Readers are encouraged to consider the other risks and uncertainties discussed in the Company’s required financial statements and filings.

**Approval**

The Board of Directors of the Company has approved the disclosure contained in this MD&A.

## **FINANCIAL HIGHLIGHTS**

- Q408 Sales \$1.4 million compared to Q407 Sales of \$1.5 million
- Q408 Operating Expenses \$0.5 million, compared to \$1 million for Q407
- Q408 Profit of \$0.04 million compared to Q407 Loss \$0.5 million
- Q408 Gross Margin 34%, compared to 39% for Q407
- Q408 Order Backlog \$0.4 million, compared to \$0.6 million for Q407

In 2008, Photon continued its efforts to reduce operating expenses in a slower growth environment. In the second quarter of 2008, Photon began aligning its spending levels to the Company's revenue outlook through a number of permanent and temporary actions ranging from lean manufacturing, stricter capital allocation, reduction of personnel throughout 2007 and 2008 including the work-share agreement implementation, an element of the Employment Insurance program under Human Resources and Skills Development Canada, in 2008. Additional cost savings in 2008 derived from the reduction of Photon's research and development department while securing agreements with research and development firms, including a related research and development Company, to ensure ongoing support for all present and future products.

As at December 31, 2008 the Company utilised \$287,539 of its \$500,000 bank line of credit.

## **PRODUCT SALES**

Product sales in fiscal 2008 were \$5.4 million compared to \$6.1 million in 2007 primarily due to the deepening slowdown of the worldwide semiconductor industry, reduction in sales to one of the Company's major accounts and the global economic conditions. During 2008, this was partially offset by Photon's initiatives to diversify its product range. This direction continues in 2009 and Photon will seek to develop relationships with new distributors for products for the oil and gas industry, low cost fiber optic temperature sensors and spectrometers to establish new sources of revenues for existing and future products.

A low cost fiber optic sensor product for the electrical power distribution industry was completed during 2008 and the first commercial sets were shipped to two customers in China. Following the initial requests and response from customers, this sector is expected to create new opportunities and to provide significant revenue to the Company starting mid 2009. The Company demonstrated this line of sensors at a major power industry show in Beijing in November 2008. In addition, a first 16-channel fiber optic sensor system was successfully trialed by a leading manufacturer of MRI scanners in Japan.

2008 also saw the first \$0.4 million in sales of its Total Sulphur Analyzer product to Photon's OEM distribution partner as well as \$0.5 million in sales of a new fiber optic position sensing product.

## **MARKETING**

Photon has broad geographic representation with dedicated distributors in North America, Europe and Asia. During 2008, Photon continued to seek new relationships as well as strengthen existing ones with industry-leading companies, to establish new sources of revenues and markets.

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## **BUSINESS DESCRIPTION**

Photon Control Inc. is a public company listed on the Canadian TSX Venture Exchange (TSX-V) under the symbol PHO. At the end of 2008, Photon staff included 20 full-time personnel.

Photon develops and commercializes innovative optical sensor systems capable of use by customers in a variety of sectors. Photon's approach to creating shareholder value has been to pursue Original Equipment Manufacturer (OEM) sales whether directly or through a distributor and to investigate the market potential of products by working directly with customers in selected industries to foresee their sectors' requirements. These collaborations often include commitments to conduct trials of the new products in industrial sites.

Photon's measurement and control instruments are intended for applications with high demands for precision, repeatable performance and quality assurance. The semiconductor manufacturers that are Photon customers set very high standards of supply chain management and Photon has satisfied these requirements.

Currently Photon supplies products to its 'Fortune 500' customers through integrator contractors located in the USA, Europe, and Asia and directly supplies products to a second major capital equipment manufacturer located in Silicon Valley.

## **COMMERCIALIZED PRODUCTS AND BUSINESS TRENDS**

The Company is supplying or starting to provide commercial products to the following market verticals through direct sales and in some cases through distributors for particular territories.

Manufacturing - Semiconductor Capital Equipment:	OEM sensing solutions (sensors for positioning, spacing, detection, and related controls, robot alignment and positioning jigs, analytical tools for inspection of silicon wafers) or Silicone Wafer Sensing Spectrometers Fiber optic temperature sensors
Oil, Gas & Petrochemical:	Optical flow meters for measurement of stack emissions (greenhouse gases, flares), fuel gas, associated gas, coal bed methane, biogas Total sulphur analyser for measurement of total sulphur content in diesel, gasoline, kerosene, jet fuel and other processed hydrocarbons Fiber optic temperature and pressure sensors for down-hole monitoring Temperature Sensor Systems
Power & Energy:	
Life Sciences:	Spectrometers Fiber Optic Temperature Sensors
Institutional:	Spectrometers Fiber Optic Temperature Sensors fMRI Response (LUMItouch <sup>®</sup> )
Food and Drug:	Spectrometers

### **Semiconductor Products**

Photon solidified its position as a recognised supplier of high quality solutions to its two major customers in the semiconductor capital equipment manufacturing sector, however, due to the deepening slowdown of this market, product sales were \$4.0 million in 2008 compared to \$5.7 million in 2007.

During 2008, Photon completed Alpha and Beta phases of development of a novel silicon wafer sensing device. This device was designed specifically to meet the requirements of a key OEM customer. This customer also paid for a significant portion of the development and retains exclusive rights to the product. This product is expected to reach commercialization in the last half of 2009.

A second significant OEM product development included a wafer sensor that will be integrated into the next generation of chemical mechanical polishing (CMP) equipment. The customer placed an initial order and proceeded with beta trials in Q408 with a commercial launch expected some time in 2009.

A third OEM wafer position sensor product that was initially developed in late 2006 finally passed the rigorous engineering qualification and customer acceptance phase and volume orders started in September 2008. Sales of this product in 2008 were \$0.5 million.

### **Commercially Available Products for Other Sectors**

#### **The LUMItouch<sup>®</sup> Response Pad**

The LUMItouch<sup>®</sup> response pad is used for MRI research and has sold worldwide in steady volume since 2000.

#### **Optical Gas Flow Meters**

Photon continued efforts to commercialize its Focus<sup>®</sup> probe gas flow meter in 2008. Metrological testing passed successfully in Russia as part of the complete Russian certification process which was achieved in Q308. First sales of flow meters took place in Western Canada through a new distributor, Process Measurement & Controls Inc. from Calgary. As announced on September 16, 2008, a distribution agreement was signed with Cosa Instruments for selling the optical gas flow meters to the USA market and Mexico. In addition, the metrological approval of the Focus<sup>®</sup> probe meters was initiated in Brazil and two commercial units were shipped to Malaysia.

The Focus<sup>®</sup> probe gas flow meter is particularly suited to measuring flare stack emissions because of its extremely wide range of velocity coverage from tenths of a metre per second to over 100 metres per second, as well as its robust performance under difficult flow conditions and temperatures.

#### **Spectrometers**

Sales of spectral products continued to grow in 2008 as customers perceive advantages from Photon spectrometers in cost and performance. Sales of spectrometers to Japan began through the recent appointment of a new distributor in that region. Photon is also actively pursuing a number of OEM opportunities for its spectrometer products which offer potential for volume sales. Interest is growing in the latest models which cover a broader spectral range from ultraviolet to near infrared.

**Total Sulphur Analyser for Petroleum Products**

As per agreement with the leading producer and distributor of measuring equipment in the petrochemical industry, Photon delivered 18 Total Sulphur Analyzer units in 2008. An additional agreement was signed with the distributor for further design-upgrades to the analyzer that were subsequently completed in Q408. The analyzer was officially presented at the American Society for Testing and Materials (ASTM) meeting in December 2008. Photon is expecting increased sales and marketing activities of its analyzer in 2009 as the product has received favourable responses from potential customers.

**Products for Other Sectors in Development****Downhole Oil and Gas Sensors**

Downhole pressure and temperature sensors developed for use in heavy oil production are being evaluated by a major Canadian heavy oil producer wanting to partner with Photon for use of the sensors in heavy oil extraction. As announced on October 21, 2008, the first set of sensors was commissioned at a SAGD operation in the major oil and gas producer in Alberta in September. The producer is preparing the plan for further sensor installations for heavy oil production.

**Fiber Optic Temperature Sensors**

Photon has built a reputation as the world leader in fiber optic temperature sensing, and is seeing more and more inquiries from new markets. Development of fiber optic sensors in 2008 continued with the delivery of beta systems for various opportunities surrounding MRI applications, as well as continued progress on OEM semiconductor applications and a new product for switch gear monitoring in Asia.

**SUBSEQUENT EVENTS**

In January 2009, as part of the direct supplier qualification by our Fortune 500 customer, Photon successfully completed the physical audit of our Quality Management System. The next stages of direct supplier qualification are due for completion in Q209.

Also, in January 2009 and in accordance with the 3 year re-registration cycle, Photon successfully completed a re-registration audit of our Quality Management System to the ISO 9001:2008 standard.

Photon continued to focus on marketing and business development efforts in 2009 and is assessing new customer markets and distributors. In line with this objective, Photon participated in Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy (Pittcon), International Society for Magnetic Resonance in Medicine (ISMRM), and Electronica & Productronica China (EP China) tradeshows and is establishing a presence of its spectrometer products in the federal technology departments.

**FINANCIAL OPERATIONS**

*For the Quarter ended December 31, 2008 (“Q408”) compared to the quarter ended December 31, 2007 (“Q407”). Certain of the comparative figures have been reclassified to conform with the presentation adopted for the current year.*

**Summary Of Quarterly Results**

	December 31,2008	Sept 30, 2008	June 30, 2008	March 31, 2008	December 31,2007	September 30, 2007	June 30,2007	March 31, 2007	December 31, 2006	September 30, 2006
Revenue	\$ 1,420,234	\$ 1,058,453	\$ 1,519,366	\$ 1,352,327	\$ 1,489,238	\$ 1,352,980	\$ 1,395,187	\$ 1,828,446	\$ 1,877,614	\$ 1,361,361
Net income / loss	\$ 37,332	\$ 37,793	\$ (520,553)	(677,976)	(483,737)	(550,801)	(993,175)	(383,236)	(632,071)	(818,639)
Net income / loss per share	\$ (0.00)	\$ (0.00)	\$ (0.01)	\$ (0.01)	\$ (0.01)	\$ (0.01)	\$ (0.01)	\$ (0.01)	\$ (0.01)	\$ (0.01)

**Revenue**

Revenue for Q408 totalled \$1,420,233 as compared to \$1,489,238 in Q407. The backlog of secured work was \$.4 million at the end of Q408. The backlog of secured work was \$.6 million at the end of Q407.

**Gross Margin**

The gross margin percentage for Q408 was 34% compared to a Q407 gross margin of 39%.

**Expenses**

General and administrative expenses totalled \$150,575 in Q408 as compared to \$242,166 in Q407. This reflects the reduction in salaries which had been offset by severance costs in prior quarters.

Research and development expenses totalled \$333,612 in Q408 as compared to \$520,431 in Q407. This reflects a reduction in salaries, materials and premises expenses offset by an increase in consulting fees.

Business development and marketing expenses were \$97,518 lower in Q408 compared to the \$84,790 recorded in Q407, due primarily to decreases in salaries of (\$71,444), consulting fees (\$11,069) and travel (\$13,855).

**Profit for the Period**

The profit for Q408 was \$37,332 as compared to a loss of \$483,737 in Q407, due to a decrease in total operating costs of \$427,767 offset by a decrease in gross margin of \$93,302.

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*For the Year ended December 31, 2008 ("2008") compared to the Year ended December 31, 2007 ("2007"). Certain of the comparative figures have been reclassified to conform to the presentation adopted for the current year.*

## **Revenue**

2008 revenue of \$5,350,378 represents a decrease of 12% as compared to 2007 revenue of \$6,065,851. This decrease is attributable to the slowdown in the semiconductor industry which has continued into Q109.

## **Gross Margin**

The gross margin percentage for 2008 of 37% has declined from the 2007 gross margin percentage of 41%. This decline in gross margin percentage relates to a decrease in sales of products to the semiconductor industry which have a gross margin percentage higher than the Company's product mix average.

## **Expenses**

General and administrative expenses totalled \$1,106,443 in 2008 as compared to \$1,279,791 in 2007. General and administrative expenses increased through salaries \$96,373 offset by decreases in office expenses \$96,931, insurance \$45,057, directors' fees \$44,954 and legal and accounting of 35,100. The salary increase relates to severance costs incurred with respect to the departure of two senior executives in 2008. The expense reductions resulted from the subletting of premises in 2007 relating to a lease obligation and the absence of stock option grants to directors in 2008.

Research and development expenses totalled \$1,701,658 in 2008 as compared to \$2,589,741 in 2007, primarily due to decreases in salaries and fees of \$653,247, a decrease in engineering materials and supplies of \$77,274. The decrease in salary expense is the continuing result of the restructuring undertaken by the Company in the third quarter of 2007 to reduce product development expenses as well as the downsizing of the research and development department that commenced in Q408.

Business development and marketing expenses totalled \$191,213 in 2008 as compared to \$435,651 in 2007, due primarily to decreases in salaries \$167,307 promotional expenses \$57,626 and travel expenses \$32,424, offset by an increase in consulting fees \$13,814. The decrease in salaries relates to the absence of the President due to medical reasons and the Promotional expense reductions relates to a lesser participation in trade shows in 2008 compared to 2007. The consulting fees increase is attributable to the services of a consultant for assistance in the marketing of the Company's flare gas measurement products.

## **Other expenses**

A foreign exchange gain of \$119,163 was recorded in 2008 as compared to a foreign exchange loss of \$289,198 in 2007 due to a substantial strengthening of the Canadian dollar against the US dollar in Q207 and its subsequent weakening in 2008.

## **Loss for the Period YTD**

The loss for 2008 was \$1,123,404 compared to a loss of \$2,410,949 in 2007. This improvement in operating results was attributable to a decrease in operating expenses and other of \$1,756,475 offset by a reduction of \$468,930 in gross margin from sales.



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## Liquidity and Solvency

Cash and cash equivalents at December 31, 2008 totalled \$108,582 compared to \$1,004,447 as at December 31, 2007. The Company had working capital of \$665,131 as at December 31, 2008 compared to working capital of \$1,875,777 as at December 31, 2007. This reduction in cash and working capital has resulted from the continued use of cash for operations as detailed below.

Cash used in operations totalled \$711,574 in 2008 as compared to \$2,107,365 in 2007. Investing activities used cash of \$470,916 in 2008 as compared to \$424,734 in 2007. Cash provided by financing activities were \$286,625 in 2008 relating to the Company's credit facility. This compares to cash provided by financing in 2007 of \$1,101,540 relating to issuance of common shares. Included in these amounts are restricted cash transactions of \$50,000 in Q108 in relation to the Company's line of credit and \$51,750 in Q407 as security for the Company's corporate MasterCard account along with an investment in a new ERP system in YTD 2008 of \$111,500.

As at December 31, 2008, the Company's accounts payable and accrued liabilities were \$1,056,414 of which fall due for payment within twelve months of the balance sheet date. As at December 31, 2008, the Company was utilizing \$287,539 of its \$500,000 credit facility.

The Company's quarterly high and low share prices and average daily trading volumes during the last four quarters were as follows:

	Share Price		Avg Daily Volume
	High	Low	
Q108	\$0.10	\$0.06	48777
Q208	\$0.09	\$0.05	42970
Q308	\$0.07	\$0.02	73777
Q408	\$0.06	\$0.01	235173

The Company's future operations are dependent upon the market's acceptance of its products in order to ultimately generate future profitable operations, and the Company's ability to secure sufficient financing to fund future operations. There can be no assurance that the Company's new products will be able to secure market acceptance. Management is in the process of exploring financing options to secure the near term financing needs of the Company.

Based on restructuring activities undertaken in 2007 for product development expense reduction, continued restructuring efforts in 2008 and the anticipated commercialization of new products, management is of the opinion that the Company will be able to meet its liabilities and commitments as they become due in 2009.

## Completed Implementation of ERP

During the second quarter of 2008 Photon began the implementation of an enterprise resource planning (ERP) software system specifically developed for manufacturing operations. The implementation is now complete and has facilitated significant improvements in: supply chain management, inventory planning and control, job costing, product costing and profitability analysis.

**Related Party Transactions**

As part of ongoing restructuring efforts, and as announced in the News Release and the MD&A dated November 26, 2008, Photon has downsized its in house research and development department subject to regulatory approval.

Effective October 1, 2008 employees previously working in Photon's research and development department severed employment with Photon and commenced employment with Photon Control R&D Ltd. Photon Control R&D Ltd is a newly formed and related Canadian Controlled Private Corporation. Photon has secured an agreement with Photon Control R&D Ltd to ensure ongoing support for its present and future products. The restructuring decision was based upon the following factors:

- Photon's research and development cost base should become financially stable.
- It is believed that raising additional funds through public offering would be costly and unadvisable.
- It is believed that a layoff of the research and development department would entail considerable severance payments.
- It is believed that Photon would improve the funding of its research and development by using this new model.
- It is believed that this new arrangement should allow Photon to better finance its future operations.
- It is intended that all current Intellectual Property ("IP") and any add-on IP developed by Photon Control R&D Ltd, derived from the existing IP, remain or become the exclusive property of Photon.
- This new arrangement should provide a higher level of cost certainty and improved ability to scale expenditures to specific projects and revenue streams, build a stronger sense of responsibility and improve accountability.
- This new arrangement should improve and increases the focus on our manufacturing efficiency.
- This new arrangement should give Photon a stronger focus on sales and its marketing programs and help Photon to leverage the revenue potential of products and to diversify products and offerings into the global market.
- An independent third party evaluation is being conducted by Evans and Evans, Inc. to substantiate these beliefs.

All transactions with related parties have been provided in the normal course of operations and have been measured at the exchange amount, which is the amount of consideration established and agreed to by the related parties. Related party transactions include transactions with the private company, partially owned by officers or directors of the Company with 4 shares (100%) divided as follows: 1 share (25%) David C. Dueck; 1 share (25%) Michael Weston, 1 share Lead Scientist (25%), and 1 share (25%) Scientist Group. The arrangement was effected as of October 1, 2008.

The engineering, research and development expenses relate to shared space provided by Photon. Amounts outstanding with the private entity are non-interest bearing, unsecured and due on demand.

Photon's transactions with the private company were as follows:

<u>Photon: Years ended December 31,</u>	<u>2008</u>	<u>2007</u>
Balance Sheet:		
Accounts Receivable from	\$ 468,470	-
Accounts Payable to	<u>367,792</u>	-
Net Receivable	100,678	
Statement of operations:		
Recovery of related expenses	\$ 468,470	-
Less Engineering, research and development services	<u>367,792</u>	-
Net Transactions	100,678	

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## **Contractual Obligations**

The Company has entered into premises leases requiring the following minimum lease payments as follows:

2009	\$	803,282
2010		844,294
2011		666,714
2012		216,443
Total	\$	2,530,733

The above lease commitment amounts are prior to rental expense recoveries of \$208,637 per annum for 2009 and 2010 plus \$17,386 in 2011 in relation to sub-lease agreements executed in 2006 and 2007.

## **Critical Accounting Policies and Estimates**

The consolidated financial statements have been prepared in accordance with Canadian generally accepted accounting principles. A summary of the significant accounting policies used in the preparation of our financial statements is included in note 2 of the consolidated financial statements for the year ended December 31, 2008. The measurement of certain assets and liabilities is dependent upon future events whose outcome will not be fully known until future reporting periods. Therefore, the preparation of the consolidated financial statements requires management to make certain estimates and assumptions that affect the reported amounts of assets, liabilities, revenue and expenses. Actual results will vary from those estimated. Certain accounting policies are critical to understanding our reported financial results. These critical policies, which affect the reported amounts of revenue and the more significant areas involving management estimates, are described here.

### *Inventory*

Inventory consists of optical, mechanical and electronic components and finished goods and is valued at the lower of cost or net realizable value. Cost is determined on a weighted average cost basis and includes the cost of direct material, direct labour and other overhead costs. Labour costs are allocated to items based on actual labour rates. Fixed and variable overhead are allocated to production activities in converting materials to finished goods.

### *Revenue recognition*

Revenue from sales of products is recognized when goods are shipped and title passes, there is persuasive evidence of an arrangement, collection is probable and the fee is fixed and determinable. Cash collected prior to revenue recognition criteria being met is recorded as deferred revenue on the consolidated balance sheet.

### *Research and development costs*

Research costs are expensed as incurred. Development costs are expensed as incurred unless they meet the required criteria for deferral and amortization. The Company deferred \$219,071 of development costs in 2008, (2007-Nil) relating to development of a portable sulphur analyzer product. The Company amortizes previously deferred development costs, commencing with commercial production, over the expected future benefit period based upon quantities delivered compared to expected levels contracted to be delivered. The amount amortized in fiscal 2008 totalled \$28,166, (2007-Nil). The Company has a balance of \$190,905, (2007-Nil) of deferred development expenses as at December 31, 2008.

#### *Stock-based compensation plans*

The Company accounts for employee stock options using the fair value based method. Under the fair value based method, compensation cost attributable to options granted to employees and directors is measured at the fair value at the grant date using the Black-Scholes option pricing model. Compensation expense is recognized over the vesting period of the underlying option. Any consideration paid by employees on exercise of stock options or purchase of stock is credited to share capital. No compensation cost is recognized for options that employees forfeit if they fail to satisfy the service requirement for vesting. Compensation expense is recognized for stock-based payments to non-employees using the fair value based method.

#### *Warranty provision estimate*

The company accrues for the estimated obligation under warranty provisions at the time sales are recognized and any changes in estimates are recognized prospectively.

#### *Financial Instruments*

The Company has classified its financial instruments as follows:

- Cash and cash equivalents and bank indebtedness, if any, as “held-for-trading”.
- Trade accounts receivable and other amounts and due from related parties are classified as “loans and receivables”.
- Accounts payable and accrued liabilities, amounts due to related parties and advances under credit facility are classified as “other financial liabilities”.

All financial instruments are initially recognized at fair value and are subsequently accounted for based on their classification. The fair value of a financial instrument on initial recognition is the transaction price, which is the fair value of the consideration given or received. Subsequent to initial recognition, financial assets and liabilities classified as held-for-trading are measured at fair value with changes in fair value recorded in the Consolidated Statements of Operations. Financial assets classified as “loans and receivables” and “other financial liabilities” are carried at amortized cost using the effective interest rate method. The fair values are based on quoted market bid process if available, otherwise fair value is obtained using discounted cash flow analysis. Transaction costs that are directly attributable to the issuance of financial assets or liabilities are accounted for as part of the carrying value at inception, and are recognized over the term of the assets or liabilities using the effective interest method. The adoption of these standards did not have an impact on the classification and valuation of financial instruments.

#### **Changes in Accounting Policies including Initial Adoption**

The Canadian Institute of Chartered Accountants (“CICA”) has issued and or revised a number of sections of the CICA Handbook which are applicable for the Company in the current period and future periods.

#### *Inventory*

Effective January 1, 2008, the Company adopted the new Canadian CICA Handbook Section 3031 “Inventories”. This section requires that inventories are measured at the lower of cost and net realizable value and that the write-downs of inventories to its net realizable value should be reversed if such value subsequently recovers. It also provides further guidance on the determination of cost. There were no material effects on the financial statements caused by the adoption of this standard.

### *Capital Disclosure*

Effective January 1, 2008, the Company adopted the new CICA Handbook Section 1535 "Capital Disclosures". The objective of this new standard is to disclose information concerning the Company's capital and how it is managed as well as any externally imposed capital requirements. The adoption of this standard had no effect on the Company's financial position, operations or cash flows.

### *Financial Instruments*

On January 1, 2008 the Company adopted the new CICA Handbook Section 3862 "Financial Instruments - Disclosures" and 3863 "Financial Instruments – Presentation". The objective of these disclosure standards is to provide information about the significance of financial instruments to the Company's financial position and performance, the nature and extent of risks arising from financial instruments to which the Company is exposed and how the Company manages those risks.

### *General standards for financial statement presentation*

In June 2007, the CICA amended Section 1400 "General Standards for financial statement presentation". The new requirements are effective for interim and annual financial statements relating to fiscal years beginning on or after January 1, 2008. The Company does not expect this section to have a material effect on its consolidated financial statements.

### *Goodwill and Intangible Assets*

In February 2008, the CICA issued new CICA 3064, Goodwill and Intangible Assets, replacing CICA 3062, Goodwill and Other Intangible Assets, and CICA 3450, Research and Development Costs. Collectively, these changes bring Canadian practice closer to International Financial Reporting Standards ("IFRS") and U.S. GAAP. The effective date of adopting this standard for the Company is January 1, 2009. This standard is not expected to impact the Company's financial statements.

### *International Financial Reporting Standards*

The CICA's Accounting Standards Board has announced that Canadian publicly accountable enterprises will adopt IFRS as issued by the International Accounting Standards Board effective January 1, 2011. The Company is in the process of developing a plan for the implementation of IFRS and will assess the impact of the differences in accounting standards on the Company's consolidated financial statements.

The Company expects to make changes to processes and system before the 2011 fiscal year, in time to enable the Company to record transactions under IFRS for comparative purposes in the 2011 financial year reporting.

## **OUTLOOK, BUSINESS RISKS AND UNCERTAINTY**

### *Sales Risks*

During 2008 customers in the Company's semi-conductor market have postponed orders as a consequence of a reduction of demand in their markets. It is unforeseeable to what extent this postponement of sales orders will translate into a longer term reduction of revenue from this segment. Uncertainties in the semiconductor markets, customer order volatility and changes in their budgets impact Photon's liquidity. Photon endeavours to reduce the risk of key client dependence by continuing to diversify its product offering and growth in independent markets.

*Foreign Exchange Risk*

Photon's products are marketed internationally and are priced in U.S. dollars, which exposes the Company to U.S. and other foreign currency fluctuation risk. Photon manages its exposure to foreign currency fluctuation by maintaining Canadian and U.S. bank accounts to offset foreign currency payables and planned expenditures. As at December 31, 2008, the Company did not utilize any forward exchange contracts to mitigate any of the risks as mentioned above.

*Going Concern Risk*

Photon, like many other companies, faces a number of challenges and uncertainties in addition to normal business and operating risks. In 2008, as part of ongoing efforts to dampen the influence of the global economic slowdown conditions, Photon restructured its Research and Development operations. In 2009 Photon continues to investigate strategic marketing opportunities and intends to leverage its industry expertise and to make prudent spending decisions in order to preserve long-term value.

The ability of the Company to meet its financial obligations as they fall due depends on the Company being able to successfully secure external financing as well as the timely collection of its outstanding trade accounts receivable. As at December 31, 2008, the Company's accounts payable and accrued liabilities were \$1,056,414 of which fall due for payment within twelve months of the balance sheet date. As at December 31, 2008, the Company was utilizing \$287,539 of its \$500,000 credit facility.

The Company is currently monitoring all expenditures and implementing cash management strategies to ensure that it has adequate cash reserves to fund identified expenditure requirements. If the Company is unable to obtain adequate financing or maintain profitable operations the Company will be required to reduce or curtail operations.

The consolidated financial statements have been prepared by management on a going-concern basis, which assumes the Company will continue in operation for the foreseeable future and will be able to realize its assets and settle its liabilities and commitments in the normal course of business. These financial statements do not reflect the adjustments to the carrying values of assets and liabilities and the reported expenses and balance sheet classifications that would be necessary should the going concern assumption become inappropriate.

*Market and foreign exchange risk*

Market risk is the risk that changes in market prices such as foreign exchange rates and interest rates will affect the Company's net earnings of the values of financial instruments. The majority of the Company's sales revenues and trade receivables are denominated in United States dollars. As such the Company's may be subject to, material, realized and unrealized exchange gains or losses resulting from above average changes in exchange rates between the Canadian and United States dollar. As at December 31, 2008, the Company did not utilize any forward exchange contracts to mitigate any of the risks as mentioned above.

**Other**

As at December 31, 2008 the Company has 101,752,018 common shares issued and outstanding. In addition there are outstanding stock options and warrants to purchase an additional 5,713,750 and 1,687,045 common shares, respectively.

Additional information and other publicly filed documents relating to the Company are available through the internet on the Canadian Securities Administrators' System for Electronic Document Analysis and Retrieval ("SEDAR"), which can be accessed at [www.sedar.com](http://www.sedar.com).