

**PHOTON CONTROL INC.**

**MANAGEMENT'S DISCUSSION AND ANALYSIS**

For the year ended December 31, 2011

This Management's Discussion and Analysis ("MD&A") of Photon Control Inc. ("Photon Control" and the "Company") is dated March 29, 2012. This 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, 2011 and 2010.

### **Forward-Looking Statements**

This MD&A contains forward looking statements, including statements regarding the business and anticipated financial performance of the Company, which involve risks and uncertainties. These risks and uncertainties may cause the Company's actual results to differ materially from those contemplated by the forward-looking statements. Factors that might cause or contribute to such differences include, among others, uncertainty as to the Company's ability to successfully complete new purchase orders 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, a vital part of its sales; the Company's ability to continue and further enhance revenue diversification and open new market opportunities; the development of competing technologies and the possibility of increased competition; the effect of slow growth in the United States, its principal market, as well in Canada and other economies generally and other economic trends and conditions in the markets that the Company and its customers serve; risks associated with technical difficulties or delays in product introductions, improvements, implementation, 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 particularly between the Canadian and United States dollars; and risks in pursuing additional development projects in order to support existing customers or pursue 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.

## **BUSINESS OVERVIEW**

Photon Control Inc. designs and manufactures a wide range of optical sensors and instruments to measure temperature, pressure, position, and flow. These products are used by original equipment manufacturers (OEM) as well as end-users in the Semiconductor, Oil and Gas, Power, Life Science, and Manufacturing industries. Photon Control's products provide high accuracy and reliability in extreme conditions and are supported by a team of experts that offer onsite installation, training, and support. Photon Control Inc. also provides engineering services for customized optical measurement systems. Headquartered in an ISO 9001:2008 manufacturing facility in Burnaby, BC, Photon Control Inc. is listed on the TSX Venture Exchange, trading under the symbol "PHO".

Photon Control's approach to creating shareholder value has been to pursue OEM sales whether directly or through distributors and to investigate the market potential of products by working directly with customers in select industries to foresee their sectors' requirements. These collaborations often include commitments to conduct trials of the new products on industrial sites.

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

Currently, Photon Control supplies products to its 'Fortune 500' customer base 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.

While focusing on manufacturing and distribution of high-quality products, Photon Control has a strong business relationship with Photon Control R&D Ltd., an engineering and research and development company, in order to enhance the effectiveness of its technical and customer support team and convert the Company's intellectual property (consisting of 15 issued and 7 pending patents) into commercial products.

Photon Control has a strong and highly skilled employee base and has successfully managed to recruit and retain qualified personnel through competitive employment terms relative to the local labour market. As at December 31, 2011 Photon Control staff remained unchanged compared to the previous year, and included 32 full-time personnel.

As announced in the News Release dated June 8, 2011, Photon Control appointed Mr. Vernon Smith, CGA, to the position of Interim Chief Financial Officer.

Also, as announced in the News Release dated October 21, 2011, Ivan Melnyk has stepped down as an officer of the Company.

## **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 optical sensing solutions (optical sensors for positioning, spacing, detection, and related controls, robot alignment and positioning jigs, analytical tools for inspection of silicon wafers) or Silicon Wafer Sensing
- Optical sensors (Immersion and Contact temperature measurement systems)
- UV / VIS / NIR Spectrometers, Light Sources and Accessories

Oil, Gas & Petrochemical:

- Focus® Optical Flow Meters for measurement of stack emissions (greenhouse gases, flares), fuel gas, associated gas, coal bed methane, biogas
- Total Sulphur Analyzer for measurement of total sulphur content in diesel, gasoline, kerosene, jet fuel, and other processed hydrocarbons
- Downhole Pressure & Temperature Sensor system for SAGD extraction processes in Oil Sands applications

Power & Energy:

- PowerTemp Series single-channel and multi-channel temperature measurement systems for monitoring of transformers, switchgear and power generators

Life Sciences:

- UV / VIS / NIR Spectrometers, Light Sources and Accessories
- Optical sensors (Life Science temperature measurement systems)

Institutional:

- UV / VIS / NIR Spectrometers, Light Sources and Accessories
- Optical sensors (Immersion and Contact temperature measurement systems)

Food and Drug:

- UV / VIS / NIR Spectrometers, Light Sources and Accessories
- Optical sensors (Immersion and Contact temperature measurement systems)

**CORPORATE VISION AND STRATEGY**

Although economic and market uncertainties, including a number of challenges such as ongoing market and supply chain volatility, price sensitivity and exchange rate fluctuation, required Photon Control and its customers to reposition its business plans over the past few years, Photon Control remains focused and fully committed to its core values and long-term growth strategy.

Some of Photon Control's key operational objectives are:

- To enhance its sales opportunities on a global scale;
- Steadily expand manufacturing efficiency, capacity and recruitment in order to meet customer demands;
- Implement operating cost structures that align with overall revenue;
- Create efficient financial planning and maintain strong budget controls in order to quickly adapt to new and changing market conditions;
- Renegotiate contracts with vendors and suppliers to obtain more favourable terms; and
- Adhere to strict inventory control procedures.

These activities are important development areas in continuing liquidity management and organizational efficiency in 2012.

**SELECTED ANNUAL INFORMATION**

Certain of the comparative figures in the following table (specifically Year End 2010) have been reclassified to conform with the presentation adopted for 2011.

	<b>Year Ended December 31</b>		
	<b>2011</b>	<b>2010</b>	<b>2009</b>
Total revenues	11,485,883	13,273,263	5,387,710
Income before discontinued operations and extraordinary items	720,733	2,715,933	184,726
Income per share before discontinued operations and extraordinary items, basic and diluted	0.01	0.03	0.00
Net income before taxes	720,733	2,715,932	184,726
Net income per share, basic and diluted	0.05	0.03	0.00
Total assets	11,379,430	6,565,199	4,510,690
Total long-term financial liabilities	—	386,623	441,864
Cash dividends declared per common share	—	—	—

## **FOURTH QUARTER 2011**

### **Highlights of Q4 2011**

- Sales of \$2.0 million (Q4 2010: \$2.9 million)
- Operating Expenses of \$1.2 million (Q4 2010: \$1.4 million)
- Loss before taxes of \$516,957 (Q4 2010: Profit before taxes of \$172,947)
- Gross Margin of 35% (Q4 2010: 43%)
- Sales Order Backlog of \$1.8 million (Q4 2010: \$2.0 million)

### **Sales**

Photon Control's sales for the three months ended December 31, 2011 were \$2.0 million, representing a decrease of \$0.9 million or approximately 31% compared with \$2.9 million during the same period last year. The decrease in sales over the same period in the prior year is mainly due to a slower pace of the semiconductor industry and some sales order rescheduling experienced during the second half of 2011.

### **Expenses**

General and administrative expenses totalled \$909,451 in Q4 2011 compared to \$508,518 in Q4 2010. This reflects an increase in the accounting and finance department services of \$400,933 due to cost allocation changes from marketing to administrative as well as an addition of a legal judgement estimate of \$539,501 but offset by reduced legal costs (see section "Litigation").

Research and development expenses totalled \$253,451 in Q4 2011 compared to \$160,491 in Q4 2010. This increase is primarily caused by an accrual for severance payout due to reduction of staff but offset by a reduction of materials and consulting fees.

Business development and marketing expenses totalled \$44,918 for Q4 2011. This decrease when compared to \$127,746 in Q4 2010 reflects the transfer of staff from marketing to general and administrative plus the change from 2010 to 2011 in the scheduling of the trade shows.

### **Profit / Loss for the Period**

The fourth quarter of 2011, with recognition of the additional lawsuit claim estimate of \$539,501 reflecting the decision of the Court related to litigation between the Company and the former President of the Company, saw a loss before taxes of \$516,957 as compared to a profit before taxes of \$172,942 posted during the same period in 2010.

## **RESULTS OF OPERATIONS AND 2011 OVERVIEW**

Since 2008, Photon Control has successfully navigated the challenging conditions and made significant strides toward aligning its spending levels and revenue outlook through a number of permanent and temporary actions ranging from lean manufacturing, stricter capital allocation and diversification of its product range. In addition, as a result of Photon Control's efforts to improve on its performance and growth potential, the Company achieved break-even financial results through the second half of 2008.

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In 2009 and 2010, Photon Control took decisive actions to enhance operational structure and efficiency, pro-active management and financial planning, quality of customer relationships and to secure consistent delivery of high quality and value-added services to its customers. The Company concentrated to heighten revenue diversification and to develop a business and marketing alliance with new partners and distributors. In 2010, Photon Control achieved many crucial milestones in both business and customer segments, resulting in the record annual sales and profit figures of \$13.3 million and \$2.7 million respectively. These results were mainly attributed to an improved economic environment including the rebound in the semiconductor sector, supported by non-semiconductor order activity, and in combination with Photon Control's established operational efficiency programs.

In 2011, despite the Company's concern as to the health of the global economy and the Q4 2011 revenue drop, Photon Control achieved its second highest annual sales level. Product sales in fiscal 2011 were \$11.5 million compared to \$13.3 million in 2010, a decrease of approximately 14%. During the first three quarters of 2011, Photon Control's product sales were only 9% lower than the comparable period of 2010.

Although the revenues from the semiconductor industry have historically fluctuated from quarter to quarter, which is evident from the Company's sales order backlog data, Photon Control recorded solid sales to this sector in fiscal 2011. Also, Photon Control continued initiatives to diversify its product range and sought to open new market opportunities and revenue streams. In line with these objectives, during 2011 Photon Control continued to record revenues in other non-semiconductor sectors which included the sale of analytical products, flare gas meters and fibre optic temperature sensors, representing approximately 14% of the total revenue in fiscal 2011.

As previously announced, during the first half of 2011 Photon Control released:

- a) Two new Spectrometer models to the Company's successful product line: SPM-002-XT64, high sensitivity UV to NIR Spectrometer, well suited for a variety of applications such as plasma monitoring, chemical analysis and food inspection; and SPM-001-NIR1700S/NIR2500W, near-infrared Spectrometer, well suited for a variety of applications such as mineral identification, petrochemical analysis and pharmaceutical analysis;
- b) The PowerTemp Series, consisting of the Compact Multi-Channel Temperature Transmitter and the Compact Single-Channel Temperature Transmitter. They are fast, accurate, robust and price competitive, which sets them apart from industry competitors. The PowerTemp Series provide accurate and reliable temperature measurement of critical components that can assist in maximizing the life expectancy and avoiding catastrophic failure to transformers, generators, switchgears, and high voltage connectors to name a few; and
- c) A new Downhole Pressure and Temperature Sensor, specifically designed to meet the demanding needs of the Steam Assisted Gravity Drainage (SAGD) process required to efficiently extract the bitumen from oil sands projects.

Subsequently, and as announced in the media News Release dated January 19, 2012, Photon Control released a new Spectroradiometer System to Photon Control's Spectroscopy product line. This Spectroradiometer System was specifically designed for LED testing and analysis, boosting high performance and accuracy in a robust and portable design. It is well suited for a number of applications in OEM and laboratory environments such as: agriculture lab testing, quality control lab testing, and food processing to name a few.

The Company remained encouraged by improvements in volume of sales orders fulfilled in the current fiscal year, supported by a strong sales order backlog of \$2.0 million as of the day of this report. In addition, the Company continues to analyze and monitor industry trends and customer needs in order to ensure proper budgeting, supported by cost management and operational efficiency programs.

As at December 31, 2011 the Company's \$500,000 bank line of credit was not utilized due to the increase in cash flow from operations. However, the line of credit was and is available for use if needed. Although there can be no assurances, Photon Control believes that cash generated from operations, committed purchase orders, and the availability of the Company's line of credit will give Photon Control financial resources necessary to operate in the current year and the foreseeable future.

## **MARKETING AND RECENT DEVELOPMENTS**

Photon Control has broad geographic representation with dedicated distributors in North America, Europe, Asia, and Australia. The Company's expanded sales and marketing efforts are resulting in the success of securing orders from new customers as well as follow-on orders from existing customers.

During 2011, in order to drive recognition and build brand awareness, Photon Control recruited a Sales Executive for the Asia market, and was actively promoting its existing and new products by attending five International trade exhibitions.

In 2011, Photon Control signed 8 new distributorship agreements for Spectrometers, Optical Sensors, and Optical Flow Meters in the following markets: China, Indonesia, Thailand, Singapore, France, Spain, Portugal, UK, Switzerland, and Australia. Photon Control also continued to implement communication procedures with existing distributors for increasing productivity. All these activities validate the Company's expanded sales and marketing efforts. Along with seeking new distributors and further research for business development, Photon Control continued to expand marketing initiatives by developing new procedures, marketing collateral and its website to help strengthen and open communication channels with existing and potential customers.

In Q4 2011, Photon Control continued to evaluate new opportunities by focusing on marketing and business development as well as addressing both the current and future demands of its market. In light of this objective, the Company implemented changes to the branding of the Company and developed a new website that is beneficial for existing and future customers, along with shareholders. Photon Control signed on two non-exclusive distributorship agreements for Spectroscopy in France, Spain, and Portugal along with Optical Sensors and Optical Flow Meters in Australia.

The Company also continued to strengthen its existing relationships and actively seeks new distributors for its Optical Sensors, Spectrometer and Optical Flow Meter product lines in key International markets.

## **Product Sales and Operational Update**

Product sales in Q4 2011 were \$2.0 million, representing a decrease of approximately 31% compared to \$2.9 million during the same period last year. The decrease in sales over the same period last year is mainly due to a slower pace of the semiconductor industry when compared with the previous quarters, and delivery rescheduling to 2012 due to additional product improvements carried out during the second half of 2011. This was partially offset by a solid level of sales to non-semiconductor sectors, which represented approximately 20% of the total products sales in Q4 2011.

## **Gross Margin**

The gross margin percentage for 2011 of 39% decreased from the 2010 gross margin percentage of 43%. The reduction of gross margin during 2011 was primarily due to a decrease in overall revenue, plus sales of less favourable margin products and additional provisions for obsolete inventory.



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## **Operating Expenses**

General and administrative expenses totalled \$2,704,468 in 2011 compared to \$1,745,071 in 2010.

General and administrative expenses increased through:

- salaries of \$27,741 (this represents a transfer of staff from business development to general administrative; net staff for these two departments was unchanged for 2011)
- insurance expenses of \$30,223
- legal fees of \$359,876
- addition lawsuit judgements of \$539,501
- audit and tax preparation of \$46,899 (includes additional amount to compensate for the audit under accrual in 2010)
- depreciation of \$66,576
- other expenses of \$126,728

and offset by a decrease in:

- other expenses of (\$149,815)
- stock option expense of (\$88,331).

Research and development expenses totalled \$804,546 in 2011 compared to \$756,540 in 2010 primarily due to a Q4 2011 increase in salary expense of \$125,876 (includes severance fees accrual due to staff reduction) offset by a decrease in consulting fees of \$78,154.

Business development and marketing expenses totalled \$225,871 in 2011 compared to \$275,214 in 2010 primarily due to an increase in:

- travel expenses of \$7,168
- depreciation of \$1,922
- other expenses of \$2,656.

and offset by a decrease in:

- salaries and consulting fees of \$43,244 (this represents a transfer of staff from business development to general administrative)
- trade shows and promotion of \$17,845

## **Other Expenses**

Photon Control's products are priced in U.S. dollars. A continuing and substantial weakening of the U.S. dollar through 2010 and 2011 resulted in a foreign exchange loss of \$7,738 in 2011 compared to a foreign exchange loss of \$174,926 in 2010.

## **Net Earnings**

The net earnings before taxes for 2011 were \$720,733 compared to net earnings of \$2,715,932 in 2010. This was primarily attributed to a decrease in revenues of \$1,787,380 and the corresponding drop in gross margin of \$1,236,756 in 2011, plus an increase in a lawsuit claim estimate of \$539,501 (see section "Litigation").

## **CORPORATE TAXES**

For 2011, a tax recovery of \$3,926,888 has been recognized for unused loss carry forwards. In prior fiscal years, there was some doubt if Photon Control could ever utilize these loss carry forwards before they expire, consequently this item was not recognized. However, the Company's recent history of profitability from 2009 to 2011 has removed this concern.

**ORDER BACKLOG**

The fourth quarter of 2011 continued to report a strong sales order backlog. At December 31, 2011 Photon Control's sales order backlog stood at \$2.0 million. This represents the value of sales orders already fulfilled in Q1 2012 and/or waiting to be fulfilled in 2012. As at the date of this report, Photon Control's sales order backlog stood at \$2.0 million.

**SUMMARY OF QUARTERLY RESULTS**

The following table is a summary of Photon Control's financial results for the past eight quarters. Certain of the comparative figures in the following table have been reclassified to conform with the presentation adopted for 2010.

	December 31, 2011	September 30, 2011	June 30, 2011	March 31, 2011	December 31, 2010	September 30, 2010	June 30, 2010	March 31, 2010
Revenue	\$ 1,981,770	\$ 2,740,028	\$ 3,513,782	\$ 3,250,303	\$ 2,861,217	\$ 2,960,614	\$ 3,868,535	\$ 3,582,897
Net income / loss before taxes	\$ (516,957)	\$ 404,836	\$ 377,189	\$ 455,664	\$ 172,947	\$ 639,182	\$ 1,009,656	\$ 894,158
Net income / loss per share Basic & Diluted	\$ (0.01)	\$ 0.01	\$ 0.00	\$ 0.01	\$ 0.01	\$ 0.01	\$ 0.01	\$ 0.01

**LIQUIDITY AND CAPITAL RESOURCES**

Cash and cash equivalents at December 31, 2011 had a balance of \$975,108 compared to \$933,503 as at December 31, 2010. The Company had working capital of \$3,423,341 as at December 31, 2011 compared to working capital of \$3,734,751 as at December 31, 2010. The maintenance of similar cash levels in 2011 (compared to 2010) resulted from improvements in reducing receivables but offset by an increase in inventory levels. Working capital increased due to a reduction of liabilities.

Cash provided by operations totalled \$958,215 in 2011 compared to \$1,511,999 in 2010. Investing activities used cash of \$947,239 in 2011 compared to \$128,021 in 2010. Cash used in financing activities were \$nil in 2011 compared to \$463,430 in 2010 relating to the Company's credit facility.

As at December 31, 2011, the Company's accounts payable and accrued liabilities were \$814,717 which fall due for payment within twelve months of the balance sheet date compared to \$1,078,752 as at December 31, 2010.

**Nature of Business and Continuing Operations**

The Company has made efforts to diversify the industries that it serves in an attempt to reduce the impact of a downturn on any one segment. The continued manufacturing and distribution of existing products and the commercialization of new products in 2011 form the basis of management's opinion that the Company will meet its liabilities and commitments as they become due. 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.

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The Company is working with its bank to secure financing over and above the \$500,000 line of credit it currently has (based on adding non-proprietary raw materials to bank covenants). In addition, the Company has insured its receivables in order to receive additional asset-based financing.

### **Contractual Obligations**

#### Leases:

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

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2012	629,916
2013	674,787
2014	720,513
2015	766,188
2016	811,989
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	\$ 3,603,393

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The above lease commitment amounts are prior to rental expense recoveries of \$17,805 in 2011 in relation to sub-lease agreements executed in 2006 and 2007.

The Company entered into a lease agreement in June 2006 and in 2011 has recorded \$64,567 (2010 – \$55,241) in deferred rent to account for reduced rent benefits received.

In November 2011, the Company renewed its premises lease covering the period of January 2012 to December 2016 (these new lease commitments obligations are detailed above under Contractual Obligations).

#### Litigation:

In October 2001, a former member of management and President of the Company (the "Claimant") initiated an arbitration proceeding asserting that certain amounts were owing to him by the Company. The Company had commenced an action against the Claimant for a declaration that it had properly rescinded a loan agreement between the Company and the Claimant dated March 5, 2001 (the "Loan Agreement") and that the debt owed to the Claimant (the "Claimant Debt"), being \$340,887 as at the date of the Loan Agreement, was repayable in shares of the Company at a rate of one share per dollar of debt.

In addition, the Claimant has filed a claim against the Company seeking unspecified damages for wrongful dismissal. The Company considered the allegations in the lawsuit to be without merit and subsequently proceeded to defend the action.

The Company's application to dismiss the claim was denied in September 2009. The trial commenced on May 9, 2011 but did not complete on May 20, 2011 as scheduled. The trial resumed on June 13 and was completed on June 17, 2011.

As announced in the News Release dated August 2, 2011, the Supreme Court of British Columbia has released a decision that the Company did not have the right to rescind the Loan Agreement and that this debt is repayable in accordance with the Loan Agreement. The amount of the Claimant Debt payable is \$374,562 including interest as at September 30, 2010 plus interest thereafter.

The Court also ruled that the Claimant was dismissed without cause in 2001 and awarded 18 months notice at \$130,000 per year in salary plus the value of the benefits payable to him.

As announced in the News Release dated September 12, 2011, Photon Control has filed a Notice of Appeal from the decision of the Supreme Court of British Columbia, and the appeal is from the Court's decision on both rescission of the loan agreement and the dismissal of the Claimant from the Company. Subsequently, the Company's appeal of both the loan agreement decision and the wrongful dismissal decision was heard by the British Columbia Court of Appeal on March 15 and 16, 2012. At the end of the hearing, judgement was reserved, without any indication as to how long the Court of Appeal's judgment may be reserved.

A charge for the Claimant Debt in the amount of \$310,499 was previously taken by the Company as a long term liability and was reported on the Company's previous financial statements. Subsequently, the Company recorded an additional \$539,501 in Q4 2011 to reflect the decision of the Court and the current estimate of this claim. Both of these amounts, totalling \$850,000, were classified in Q4 2011 as a contingent liability (dependent upon the results of the appeal in the current fiscal 2012) per IAS 37. Related to this issue, the Company has provided a \$850,000 standby irrevocable letter of credit as a guarantee against this lawsuit (included on restricted cash).

Appropriate adjustments to the charge will be made in the Company's 2012 financial statements to reflect the decision of the Court.

As announced in the News Release dated September 22, 2010 and the Company's Management's Discussion and Analysis, Photon Control has filed two lawsuits in the United States, the first in the United States District Court, Northern District of California at San Francisco against Azbil North America, Inc. ("Azbil") (formerly Yamatake Sensing Control, Ltd.), a California company with offices in Santa Clara, California, and the second in the Superior Court of the State of California, County of Santa Clara, against Yamatake Corp. ("Yamatake"), a Japanese company with offices in Tokyo, Japan, which is the parent company of Azbil. The disputes related to Photon Control's proprietary and trade secret fiber optic temperature sensor technology.

As announced in the News Release dated May 24, 2011, Photon Control resolved its disputes with Azbil and Yamatake and both litigations have been dismissed without prejudice. The parties have agreed to continue their working relationship and have entered into a new agreement with the expectation that all parties involved will benefit from continued cooperation in the development and supply of fiber optic temperature sensors to their customers throughout the world. Photon Control will continue to provide products and technical support and assistance in the area of optical temperature sensors to both Azbil and its customers. Moreover, the parties have agreed to work together to develop and protect their intellectual property in the area of optical temperature sensors.

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## **RELATED PARTY TRANSACTIONS**

All transactions with related parties have been recorded 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 Photon Control R&D Ltd. Photon Control R&D Ltd. commenced providing engineering consulting and research and development services to the Company on October 1, 2008 and, as a result, the Company has reduced its internal research and development operations.

The Company subleases space to Photon Control R&D Ltd. at the same facility. The Company charges Photon Control R&D Ltd. premises and related expenses to recover the Company's costs. Amounts outstanding with Photon Control R&D Ltd. are non-interest bearing, unsecured and due on demand.

<u>Years ended December 31,</u>	<u>2011</u>	<u>2010</u>
Balance Sheet:		
Accounts receivable	\$ 965,026	\$ 810,641
Note receivable	188,786	198,721
Accounts payable	340,365	272,552
Statement of Operations:		
Recovery of premises and related expenses	234,064	159,088
Payroll re-imburement	1,096,254	719,117
Engineering, research and development services	394,847	681,955
Royalties	354,382	188,703
Revenue from sales of products and services	206,907	119,038
Management services (includes finance, payroll, IT)	209,695	269,969

The Company indemnifies its directors and officers against any and all claims or losses reasonably incurred in the performance of their service to the Company to the extent permitted by law. The Company has acquired and maintains liability insurance for directors and officers of the Company.

## **SUBSEQUENT EVENTS**

In Q1 2012, Photon Control successfully completed the ISO 9001:2008 Re-Assessment Audit.

Also, in Q1 2012, Photon Control participated in the Photonics West trade exhibition in San Francisco, California. The Company presented its Spectrometer product line, unveiled the new Spectroradiometer System, as well as promoted its OEM manufacturing capabilities. In addition, Photon Control met with distributors at the trade exhibition to identify and discuss new market opportunities and expansion strategies. Also, during the first quarter of 2012, Photon Control has extended the distributorship agreement under which InnoTech Ltd. in Russia will continue distributing the Company's Optical Flow Meters.

## **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, 2011. The measurement of certain assets and liabilities is dependent upon future events, the outcome of which 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 an actual FIFO 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 hours input. 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. There were no additional costs which were deferred in 2011 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. In 2010, commercial production commenced but was postponed in 2011 so the amount amortized in fiscal 2011 was \$2,108 (2010 - \$37,214). The Company has a balance of \$150,616, (2010 - \$152,724) of deferred development expenses as at December 31, 2011. As at December 31, 2011, these deferred development were not deemed to be impaired.

### **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.

50,000 stock options were granted to new employees during 2011 compared to 2,830,000 stock options granted to certain directors, officers, employees and a consultant of the Company during 2010.

### **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**

Recently adopted accounting pronouncements:

### **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 accompanying consolidated financial statements for the year ended December 31, 2011 have been prepared to reflect the Company's adoption of IFRS, with the effective date being January 1, 2011 (with 2010 being restated).

Note: The Company's consolidated financial statements (Note 8) for the year ended December 31, 2011 contain a detailed description of the conversion to IFRS, including a line by line reconciliation of the Company's financial statements previously prepared under Canadian GAAP to those under IFRS for the year ended December 31, 2010.

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

### **Sales Risks**

During the first half of 2009, customers in the Company's semi-conductor market had postponed orders as a consequence of a reduction of demand in their markets. In the final two quarters of 2009, Photon Control saw a recovery of demand from the semiconductor market, which continued throughout 2010, resulting in sales to this market that more than doubled compared with fiscal 2009. The solid order trends and a sales order backlog continued during fiscal 2011, despite the semiconductor market fluctuations. Also, the Company endeavours to reduce the risk of key client dependence by continuing its initiative to diversify its product range and develop relationships with new distributors for products for the oil and gas, power, life science, and manufacturing industries.

### **Going-Concern Risk**

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.

### **Outlook, Market, Competition, and Foreign Exchange Risk**

In 2011, Photon Control demonstrated the resilience of the Company's business and ability to generate revenue for the foreseeable future, sustaining solid financial results for the third consecutive year. Although the Company continues to be influenced by fluctuations in revenue as a result of volatility in the markets, product mix and the gross margin, Photon Control expects to maintain a solid level of orders in the current fiscal year.

While there can be no assurance of the ability of the Company to penetrate target markets, the Company endeavours to limit the effects of risk factors, including the competition risks, through its strategic planning, management processes and marketing research. The Company continues to focus on securing consistent delivery of high quality and value-added products and services.

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 may be subject to material, realized and unrealized exchange gains or losses resulting from above average changes in exchange rates between the Canadian and the United States dollar. As at December 31, 2011, the Company did not utilize any forward exchange contracts to mitigate any of the risks as mentioned above. Photon Control manages its exposure to foreign currency fluctuation by maintaining Canadian and U.S. dollar bank accounts to offset foreign currency payables and planned expenditures. As at December 31, 2011, the Company was not exposed to significant credit or interest rate risk.

### **OUTSTANDING SHARE DATA**

As at December 31, 2011 and the date hereof, the Company had 102,909,518 common shares issued and outstanding. There were outstanding stock options to purchase an additional 3,532,500 common shares of the Company as at December 31, 2011 and remains unchanged as at the date hereof.

### **ADDITIONAL INFORMATION**

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