



## Management's Discussion and Analysis

For the three and six months ended June 30, 2020

*(in Canadian dollars, amounts in thousands except number of shares and per share amounts)*

DATED August 6, 2020

This Management's Discussion and Analysis ("MD&A") provides information for the three and six months ended June 30, 2020. This MD&A is prepared in accordance with National Instrument 51-102F1, and should be read in conjunction with Photon Control Inc.'s (the "Company" or "Photon Control") unaudited condensed interim consolidated financial statements and accompanying notes for the three and six months ended June 30, 2020, and the consolidated financial statements and accompanying notes for the years ended December 31, 2019 and 2018. These documents, along with additional information about the Company, including the Annual Information Form ("AIF"), are available at [www.photoncontrol.com](http://www.photoncontrol.com) and [www.sedar.com](http://www.sedar.com).

This MD&A contains forward-looking information within the meaning of Canadian securities laws, and the use of non-GAAP measures. Refer to "Cautionary Statement Regarding Forward-Looking Statements" and "Cautionary Statement Regarding Certain Non-GAAP Performance Measures" included within this MD&A.

The financial data contained in this report and in the unaudited condensed interim consolidated financial statements and accompanying notes of the Company for the six months ended June 30, 2020 have been prepared in accordance with International Financial Reporting Standards ("IFRS") and are stated in Canadian dollars, unless otherwise noted.



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## 1 OVERVIEW AND HIGHLIGHTS

### 1.1 Photon Control

Photon Control was incorporated on August 9, 2002 and designs, manufactures and distributes a wide range of optical sensors and systems to measure temperature and position. These products improve performance and enable innovation for our customers and are used in the semiconductor and other high technology industries. Photon Control's high quality products provide industry-leading accuracy, reliability and quality in the most 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 is headquartered in an ISO 9001:2015 manufacturing facility in Richmond, British Columbia, Canada, has manufacturing, sales and research and development offices in California, and a sales distribution network across the globe. Photon Control is listed on the Toronto Stock Exchange (the "TSX"), trading under the symbol "PHO".

### 1.2 2020 Highlights and Outlook

The following significant corporate and financial events have taken place in 2020:

- In January 2020, the Company announced it successfully completed a [surveillance audit](#) of its quality management system to maintain its ISO 9001:2015 certification.
- In April 2020, the Company completed the acquisition of certain tangible and intangible assets of [Micronor Inc.](#) ("Micronor"), a supplier of fiber optic kinetic sensors based in Camarillo, California, United States for cash consideration of \$844.
- In May 2020, the Company announced the [appointment of Damian Towns](#) as its new Chief Financial Officer ("CFO") and Corporate Secretary.
- In July 2020, the Company announced the strategic partnership with [FiSens GmbH](#) for a worldwide license and distribution agreement for Fiber Bragg Grating ("FBG") sensor solutions.

We continue to focus on three key areas: managing through the global COVID-19 pandemic, achieving our stated growth strategy and strengthening our underlying business.

#### **Managing through COVID-19**

Our primary goal is ensuring the health and safety of our employees, customers, suppliers, and their families. We are continuing to serve our customers and in addition have implemented social distancing measures, additional safety and cleaning protocols at our manufacturing facilities and we have adopted additional protective measures that our customers employ.

Photon Control meets the definition of an essential service in British Columbia and the United States. The impact of COVID-19 on our operations has so far been minimal and our manufacturing operations were not subjected to any closures.

#### **Achieving our stated growth strategy**

Our new product introduction ("NPI") funnel remains a key area of focus. We continue to progress with design wins for prototype introduction and our NPI revenues grew sequentially over the prior quarter. In addition we are also investing in disruptive technologies such as FBG through the [FiSens license agreement](#).



The acquisition of [Micronor's assets](#) is a complementary expansion to Photon Control's offering in the semiconductor and other high-tech industries as it provides a new range of fiber optic encoders and positioning and signaling sensors. This acquisition also provides us with a second site located in Camarillo, California.

### **Strengthening our underlying business**

We have also augmented our team with the introduction of our new CFO, Damian Towns and VP Business Development, Dillan Fernando. We have also developed our internal team with the recent promotions of Eva Valencia to VP Semiconductor Sales and Phil Schick to VP Technology & Operations.

Our focus for the remainder of the year will be on maintaining on time deliveries and development initiatives for our semiconductor customers, whilst integrating our new product lines from the FiSens license agreement and Micronor product brand which will act as enablers in delivering our growth initiatives. We will also continue to build and strengthen our team and underlying business in order to capitalize on the opportunities ahead.

## **1.3 Industry, Market and Products**

### **Temperature and Position Sensors**

The semiconductor capital equipment industry offers several significant and growing applications for our technology and is the primary source of revenue for our business. The Company designs and produces precision temperature and position sensors used by semiconductor wafer fabrication equipment ("WFE") manufacturers in our ISO-certified manufacturing facility. The manufacturing of silicon wafers for semiconductors involves a multitude of complex processes; monitoring and maintaining the correct wafer position and wafer temperature during these processes is critical to achieving the product yield and productivity required for high-volume manufacturing. The measurement accuracies required of such sensors are becoming more challenging as semiconductor devices scale to atomic level dimensions and become more three-dimensional ("3D") in nature. Furthermore, these sensors must maintain their accuracy in harsh environments encountered in critical semiconductor equipment, such as the strong radio frequency electromagnetic fields encountered in plasma etch and plasma-assisted deposition systems. Photon Control's fiber optic sensors are immune to radio frequency interference and are thus able to deliver the high accuracies required for state-of-the-art process control.

The need for scaling semiconductor devices to atomic level dimensions has also created a need for more measurement points inside the chamber. Temperature and position anomalies have a greater impact on yield at these atomic level dimensions and must be measured and controlled more precisely which increases the value and use of fiber optic sensors. In addition, as semiconductor equipment has gone from 28 nm node to sub-10 nm nodes, the number of measurement points and etch steps has increased more than four-fold. Similarly, the proliferation of 3D and advanced logic chip designs have become more common and comprise an increasingly significant percentage of total chips manufactured. These factors have driven and are expected to continue to drive demand for the Company's products.

## Market Landscape

The global semiconductor industry is fast-paced, competitive and constantly innovating to increase processing speed and power. The ability to anticipate these technological changes and innovate to meet them without compromising quality is a key competitive advantage in this market. As a supplier of componentry to semiconductor WFE manufacturers, Photon Control's key strengths include our rapid prototyping capabilities, our ISO-certified production facility and copy exact methods, and our ability to manufacture to our customers' exacting standards with our highly trained workforce. In addition to our high-quality manufacturing strengths, our products include unique proprietary characteristics which both differentiate our products and allow us to outperform competitive offerings.

In addition to the increasing number of measurement points, there are several other market and technology trends that we expect will contribute to the fiber optic sensor market in semiconductor manufacturing:

- Semiconductors have revolutionized all aspects of our economy and lives – among the technologies fueled by semiconductors today and in the future are smartphones, 5G mobile, the cloud, autonomous driving, and artificial intelligence. As a critical building block of these technologies, semiconductors will continue to enable innovation and transform industries, and hence, chip makers are expected to increase production to meet this growing market.
- The need for more storage capacity and computing power also continues to drive the scaling of semiconductor devices to smaller dimensions and to be more 3D. These advanced technologies are more complex which require more process steps, equipment and sensors.
- The scaling of semiconductor devices requires patterning of semiconductor materials at atomic level dimensions. This is achieved by a process called “multi-patterning” which requires extra plasma etch and deposition steps compared to standard patterning, and these equipment segments have been outpacing the overall WFE market. The Company's fiber optic sensors are used mostly in plasma etch and deposition equipment.
- The semiconductor capital equipment market has historically experienced certain cycles of growth and contraction due to variations in product supply and demand, changing customer requirements and rapid technological change. The Company has identified a number of non-semiconductor market segments as potential targets for its fiber optic sensing products to diversify its revenue stream in the future.

## Sales, Marketing and Distribution

Photon Control sells its products globally with sales to original equipment manufacturers (“OEMs”) primarily in the United States who in turn sell their products to manufacturers in the United States, Asia and Europe. We also sell through a network of distributors who sell our products to OEMs in their home markets.



## 2 JUNE 2020 FINANCIAL PERFORMANCE OVERVIEW

The following table highlights key financial information for the three and six months ended June 30, 2020 as compared to the prior comparable periods:

Table 1: Financial Performance	Three months ended				Six months ended			
	June 30,		Variance		June 30,		Variance	
	2020	2019	(\$)	(%)	2020	2019	(\$)	(%)
Revenue	\$ 16,098	\$ 7,106	\$ 8,992	127%	\$ 33,410	\$ 15,138	\$ 18,272	121%
Cost of sales	6,376	3,215	3,161	98%	13,100	7,017	6,083	87%
Gross profit	9,722	3,891	5,831	150%	20,310	8,121	12,189	150%
Gross profit %	60%	55%			61%	54%		
Operating expenses								
General and administrative	1,851	2,171	(320)	-15%	4,006	3,696	310	8%
Research and development	1,154	1,039	115	11%	2,409	2,316	93	4%
Sales and marketing	920	457	463	101%	1,607	1,131	476	42%
Total operating expenses	3,925	3,667	258	7%	8,022	7,143	879	12%
Operating income	5,797	224	5,573	2488%	12,288	978	11,310	1156%
Finance income	27	226	(199)	-88%	181	369	(188)	-51%
Accretion expense on contingent consideration	(106)	(134)	28	-21%	(228)	(277)	49	-18%
Change in fair value of contingent consideration	(467)	334	(801)	-240%	(555)	432	(987)	-228%
Foreign exchange (loss) gain	(1,518)	(472)	(1,046)	222%	1,164	(1,058)	2,222	-210%
	(2,064)	(46)	(2,018)	4387%	562	(534)	1,096	-205%
Net income before taxes	3,733	178	3,555	1997%	12,850	444	12,406	2794%
Income taxes	1,060	69	991	1436%	3,538	265	3,273	1235%
Net income	2,673	109	2,564	2352%	9,312	179	9,133	5102%
Gain (loss) on foreign exchange translation of sub	120	(28)	148	-529%	136	22	114	518%
Total comprehensive income	\$ 2,793	\$ 81	\$ 2,712	3348%	\$ 9,448	\$ 201	\$ 9,247	4600%
Basic earnings per share	\$ 0.03	\$ 0.00	\$ 0.03	100%	\$ 0.09	\$ 0.00	\$ 0.09	100%
Diluted earnings per share	\$ 0.03	\$ 0.00	\$ 0.03	100%	\$ 0.09	\$ 0.00	\$ 0.09	100%

Operating income is a non-GAAP measure and is therefore not universally defined. The Company defines operating income as earnings before finance income; accretion expense on contingent consideration; change in fair value of contingent consideration; foreign exchange (loss) gain; and income taxes.



## 2.1 Revenue and Cost of Sales

Table 2: Revenue and cost of sales	Three months ended				Six months ended			
	June 30,		Variance		June 30,		Variance	
	2020	2019	(\$)	(%)	2020	2019	(\$)	(%)
Revenue	\$ 16,098	\$ 7,106	\$ 8,992	127%	\$ 33,410	\$ 15,138	\$ 18,272	121%
Cost of sales	6,376	3,215	3,161	98%	13,100	7,017	6,083	87%
Gross profit	\$ 9,722	\$ 3,891	\$ 5,831	150%	\$ 20,310	\$ 8,121	\$ 12,189	150%
Gross profit %	60%	55%			61%	54%		

Total revenues for the three and six months ended June 30, 2020 both increased over the prior comparable periods due to an increase in WFE spending by OEMs primarily due to the improvement in the semiconductor market. Revenues also increased slightly due to accelerated shipments to customers in response to the COVID-19 pandemic and revenues earned from new products.

Gross profit excludes royalty payments associated with the contingent consideration payments (section 4.3)

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

Table 3: Revenue by territory	Three months ended				Six months ended			
	June 30,		Variance		June 30,		Variance	
	2020	2019	(\$)	(%)	2020	2019	(\$)	(%)
Asia	\$ 8,627	\$ 1,378	\$ 7,249	526%	\$ 18,249	\$ 4,878	\$ 13,371	274%
United States	7,471	5,728	1,743	30%	15,161	10,260	4,901	48%
<b>Total</b>	<b>\$ 16,098</b>	<b>\$ 7,106</b>	<b>\$ 8,992</b>	<b>127%</b>	<b>\$ 33,410</b>	<b>\$ 15,138</b>	<b>\$ 18,272</b>	<b>121%</b>

For the three and six months ended June 30, 2020, revenues generated from customers located in Asia and the United States increased over the prior comparable periods due to strong near-term demand experienced in the semiconductor capital equipment market.

Order backlog was \$29,658 on June 30, 2020, a decrease from \$30,905 at March 31, 2020 and an increase from \$10,714 at June 30, 2019. Order backlog, defined as the unfilled value of sales orders received or scheduled for fulfillment primarily in, but not limited to, the upcoming six-month period. The decrease in order backlog versus Q1 2020 mainly relates to changes in near-term demand as customers built excess stock in Q1 in response to COVID-19 which was not repeated in Q2.

Total cost of sales for the three and six months ended June 30, 2020 increased 98% and 87% over the prior comparable periods, respectively. Cost of sales has increased at a lesser rate of sales as a result of improved absorption of fixed costs due to higher overall revenues.

Gross profit increased for the three and six months ended June 30, 2020 over the prior comparable periods. The variability of gross margin is a function of overall sales volume and product and customer mix.

## 2.2 Operating Expenses

Table 4: Operating Expenses	Three months ended				Six months ended			
	June 30,		Variance		June 30,		Variance	
	2020	2019	(\$)	(%)	2020	2019	(\$)	(%)
General and administrative	\$ 1,851	\$ 2,171	\$ (320)	-15%	\$ 4,006	\$ 3,696	\$ 310	8%
Research and development	1,154	1,039	115	11%	2,409	2,316	93	4%
Sales and marketing	920	457	463	101%	1,607	1,131	476	42%
<b>Total operating expenses</b>	<b>\$ 3,925</b>	<b>\$ 3,667</b>	<b>\$ 258</b>	<b>7%</b>	<b>\$ 8,022</b>	<b>\$ 7,143</b>	<b>\$ 879</b>	<b>12%</b>

General and administrative were lower for the quarter as a result of one-off onboarding and recruiting costs in Q2 2019. General and administrative increased year-to-date as a result of higher staffing costs due to an expanded workforce to support our growth strategy and increased incentive compensation costs related to the Company's strong financial performance.

Research and development increased slightly for the quarter and year-to-date as a result of the Company maintaining its investments in new product development.

Sales and marketing increased for the quarter and year-to-date primarily as a result of headcount costs related to the Company's sales and marketing focus on new and existing markets.

## 2.3 Net Income and Adjusted EBITDA

Table 5: Net income	Three months ended				Six months ended			
	June 30,		Variance		June 30,		Variance	
	2020	2019	(\$)	(%)	2020	2019	(\$)	(%)
Operating income	\$ 5,797	\$ 224	\$ 5,573	2488%	\$ 12,288	\$ 978	\$ 11,310	1156%
Finance income	27	226	(199)	-88%	181	369	(188)	-51%
Accretion expense on contingent consideration	(106)	(134)	28	-21%	(228)	(277)	49	-18%
Change in fair value of contingent consideration	(467)	334	(801)	-240%	(555)	432	(987)	-228%
Foreign exchange (loss) gain	(1,518)	(472)	(1,046)	222%	1,164	(1,058)	2,222	-210%
	(2,064)	(46)	(2,018)	4387%	562	(534)	1,096	-205%
Net income before taxes	3,733	178	3,555	1997%	12,850	444	12,406	2794%
Income taxes	1,060	69	991	1436%	3,538	265	3,273	1235%
Net income	2,673	109	2,564	2352%	9,312	179	9,133	5102%
Other comprehensive gain (loss) on foreign exchange translation of subsidiary	120	(28)	148	-529%	136	22	114	518%
<b>Total comprehensive income</b>	<b>\$ 2,793</b>	<b>\$ 81</b>	<b>\$ 2,712</b>	<b>3348%</b>	<b>\$ 9,448</b>	<b>\$ 201</b>	<b>\$ 9,247</b>	<b>4600%</b>

Contingent consideration relates to the acquisition of certain assets of Photon Control R&D Ltd. ("Photon R&D") in 2017. It is determined using a discount model applied to royalties on revenues earned from defined products from January 1, 2017 to December 31, 2021. Accretion expense represents the calculated increase of contingent consideration resulting from the passage of time.

Change in fair value of contingent consideration is based on revisions to management's estimate of the potential total amount of contingent consideration compared to the estimate made at the end of the preceding quarter. Change in fair value of contingent consideration resulted in a loss for the quarter and year-to-date periods, compared to a gain in the prior comparable periods, respectively.





The loss for the current period resulted from an increase in management's estimate of future royalties payable to Photon R&D due to the Company's business performance for the quarter and as estimated for future quarters.

The foreign exchange loss for quarter was due to the strengthening of the Canadian dollar relative to the US dollar. Conversely, the Canadian dollar weakened relative to the US dollar over the year to date period resulting in a foreign exchange gain.

The following table provides a reconciliation of net income to adjusted EBITDA for the three and six months ended June 30, 2020 and 2019:

Table 6: Adjusted EBITDA	Three months ended				Six months ended			
	June 30,		Variance		June 30,		Variance	
	2020	2019	(\$)	(%)	2020	2019	(\$)	(%)
Net income for the period	\$ 2,673	\$ 109	\$ 2,564	2352%	\$ 9,312	\$ 179	\$ 9,133	5102%
Add (deduct)								
Finance income	(27)	(226)	199	-88%	(181)	(369)	188	-51%
Accretion expense on contingent consideration	106	134	(28)	-21%	228	277	(49)	-18%
Income taxes	1,060	69	991	1436%	3,538	265	3,273	1235%
Depreciation of property and equipment	377	402	(25)	-6%	742	795	(53)	-7%
Amortization of intangible assets	219	243	(24)	-10%	415	486	(71)	-15%
Foreign exchange loss (gain)	1,518	472	1,046	222%	(1,164)	1,058	(2,222)	-210%
<b>Adjusted EBITDA<sup>(1)</sup> for the period</b>	<b>\$ 5,926</b>	<b>\$ 1,203</b>	<b>\$ 4,723</b>	<b>393%</b>	<b>\$ 12,890</b>	<b>\$ 2,691</b>	<b>\$ 10,199</b>	<b>379%</b>

<sup>(1)</sup> Adjusted EBITDA is a non-GAAP measure and is therefore not universally defined. The Company defines adjusted EBITDA as earnings before finance income, accretion expense, income taxes, depreciation, amortization and foreign exchange loss (gain).

### 3 REVIEW OF QUARTERLY PERFORMANCE

#### 3.1 Revenue and Cost of Sales

Table 7: Revenue and Cost of sales	Q318	Q418	Q119	Q219	Q319	Q419	Q120	Q220
Revenue	\$ 10,052	\$ 8,233	\$ 8,032	\$ 7,106	\$ 8,742	\$ 8,850	\$ 17,312	\$ 16,098
Cost of sales	4,859	3,946	3,802	3,215	3,951	4,197	6,724	6,376
Gross profit	\$ 5,193	\$ 4,287	\$ 4,230	\$ 3,891	\$ 4,791	\$ 4,653	\$ 10,588	\$ 9,722
Gross profit %	52%	52%	53%	55%	55%	53%	61%	60%

Revenue from Q3 2018 to Q2 2019 declined as the semiconductor industry experienced a period of weakness. Signs of market recovery emerged during the second half of 2019 and revenues increased 16% over the first half. This trend continued into Q1 2020 as revenues increased from 96% from Q4 2019, marking a record quarter for the Company. Accelerated shipments to customers in response to the COVID-19 pandemic also contributed to the revenue growth in Q1 2020. In Q2 2020, revenues decreased slightly as the benefits of customers building strong inventory positions during the COVID-19 pandemic.

### 3.2 Operating Expenses

	Q318	Q418	Q119	Q219	Q319	Q419	Q120	Q220
General and administrative	\$ 1,361	\$ 1,719	\$ 1,525	\$ 2,171	\$ 1,426	\$ 1,394	\$ 2,155	\$ 1,851
Research and development	966	817	1,277	1,039	1,289	799	1,255	1,154
Sales and marketing	693	585	674	457	355	416	687	920
<b>Total operating expenses</b>	<b>\$ 3,020</b>	<b>\$ 3,121</b>	<b>\$ 3,476</b>	<b>\$ 3,667</b>	<b>\$ 3,070</b>	<b>\$ 2,609</b>	<b>\$ 4,097</b>	<b>\$ 3,925</b>

General and administrative in Q4 2018 and Q2 2019 were higher than other quarters due to costs associated with the departure of Company's former Chief Executive Officer ("CEO") and onboarding of the current CEO, respectively. The increase in Q1 2020 was the result of a higher proportion of the current year's incentive compensation costs recognized in the quarter due to the Company's record financial performance. The increase in Q2 2020, involves the costs associated with the departure of the Company's former CFO and further incentive compensation amounts.

Research and development have increased since Q4 2018 as the Company has made investments in new product development and disruptive technologies as part of its growth strategy. The decrease in expenses for Q2 2019 and Q4 2019 were primarily due to government tax credits recognized. The increase in Q1 2020 was the result of a higher proportion of the current's incentive compensation costs recognized in the quarter due to the Company's record financial performance. In Q2 2020, costs were lower as a result of a year-end tax true-up for recovery of government tax credits.

Sales and marketing expenses decreased starting in Q2 2019 as the Company streamlined and refocused its sales and marketing efforts. The increase in Q1 and Q2 2020 was due to increased headcount costs to support expansion into new markets as part of the Company's growth initiative and a higher proportion of the current year's incentive compensation costs recognized due to the Company's record financial performance.

### 3.3 Net Income

The following table provides a summary of the Company's financial results for the eight most recently completed quarters:

	Q318	Q418	Q119	Q219	Q319	Q419	Q120	Q220
Operating income	\$ 2,173	\$ 1,166	\$ 754	\$ 224	\$ 1,721	\$ 2,044	\$ 6,491	\$ 5,797
Finance income	142	70	143	226	133	152	154	27
Accretion Expense	(187)	(178)	(143)	(134)	(127)	(116)	(122)	(106)
Change in fair value	112	649	98	334	50	(597)	(88)	(467)
Foreign exchange (loss) gain	(551)	1,332	(586)	(472)	272	(478)	2,682	(1,518)
	(484)	1,873	(488)	(46)	328	(1,039)	2,626	(2,064)
Net income before taxes	1,689	3,039	266	178	2,049	1,005	9,117	3,733
Income taxes	440	340	196	69	562	300	2,478	1,060
Net income	1,249	2,699	70	109	1,487	705	6,639	2,673
Gain (loss) on foreign exchange translation of sub	24	(116)	50	(28)	(12)	(6)	16	120
<b>Total comprehensive income</b>	<b>\$ 1,273</b>	<b>\$ 2,583</b>	<b>\$ 120</b>	<b>\$ 81</b>	<b>\$ 1,475</b>	<b>\$ 699</b>	<b>\$ 6,655</b>	<b>\$ 2,793</b>

Finance income primarily consists of interest on short-term investments. Finance income increased slightly in Q1 2020 due to interest received on refiling of historical tax returns partially offset by lower

interest rates on short-term investments. Q2 2020 decreased significantly due to lower interest rates as a result of COVID-19 and interest accrued on the Company's uncertain tax position.

The consistent decrease in accretion expense is in line with the reduction in the contingent consideration over time. The change in fair value on contingent consideration (section 4.2) in each quarter was a result of management revisiting the estimate of future revenues subject to royalty which increased heading into 2020 due to strengthening of the semiconductor industry.

Foreign exchange is recognized primarily on US denominated balances and foreign exchange gains and losses principally follow the fluctuations in exchange rates at each period end.

The Company's effective tax rate for Q4 2018 through Q2 2019 was impacted by taxes associated with the Company's voluntary disclosure agreement with a foreign tax authority.

## 4 FINANCIAL POSITION

### 4.1 Assets

Table 10: Current Assets	Q318	Q418	Q119	Q219	Q319	Q419	Q120	Q220
<b>Current assets</b>								
Cash and cash equivalents	\$ 42,651	\$ 42,407	\$ 37,264	\$ 31,422	\$ 34,025	\$ 33,400	\$ 41,214	\$ 41,057
Trade and other receivables	4,053	4,065	4,902	3,367	3,421	4,051	8,475	8,550
Income tax receivable	-	-	-	1,495	971	714	-	-
Inventories	5,951	5,515	4,876	5,217	4,942	6,459	7,574	9,412
Prepaid expenses and deposits	382	468	608	590	486	575	593	775
<b>Total current assets</b>	<b>\$ 53,037</b>	<b>\$ 52,455</b>	<b>\$ 47,650</b>	<b>\$ 42,091</b>	<b>\$ 43,845</b>	<b>\$ 45,199</b>	<b>\$ 57,856</b>	<b>\$ 59,794</b>

The following table explains the movements in cash and cash equivalents for the eight most recently completed quarters:

Table 11: Cash Flow	Q318	Q418	Q119	Q219	Q319	Q419	Q120	Q220
Net cash provided by (used in) operating activities	\$ 3,875	\$ 1,773	\$ (2,512)	\$ (1,757)	\$ 3,818	\$ (366)	\$ 8,102	\$ 1,444
Net cash used in financing activities	(1,837)	(1,943)	(2,813)	(4,068)	(1,156)	(363)	(322)	(617)
Net cash (used in) provided by investing activities	(181)	(74)	132	11	(47)	110	18	(1,104)
<b>Net increase (decrease) in cash</b>	<b>\$ 1,857</b>	<b>\$ (244)</b>	<b>\$ (5,193)</b>	<b>\$ (5,814)</b>	<b>\$ 2,615</b>	<b>\$ (619)</b>	<b>\$ 7,798</b>	<b>\$ (277)</b>

Net cash provided by (used in) operating activities decreased in Q1 2019 and Q2 2019 due to tax payments made to Canadian and foreign tax authorities. Cash provided increased in Q3 2019 due to early signs of a recovering WFE environment which continued into Q1 2020. Q4 2019 was lower as the Company built an inventory position to support strong order backlog. Q2 2020 was lower primarily due to timing of vendor payments and building of inventory in the COVID-19 environment.

Net cash used in financing activities was due primarily to cash used to buy back shares of the Company under the 2019 Normal Course Issuer Bid ("NCIB") program and payment of contingent consideration. The NCIB ended in Q3 2019 and resulted in cash outflows of \$7,095.

Net cash (used in) provided by investing activities primarily relates to purchase of property and equipment and intangible assets partially offset by interest received on short-term investments. The significant decrease in Q2 2020 was due to the Micronor acquisition (section 1.2).

Trade and other receivables in Q1 2020 and Q2 2020 increased on a consistent with the underlying revenues earned in the period.

Income taxes receivable related to foreign tax credits receivable for refiling historical tax returns and tax instalments paid in advance.

Inventories increased in Q4 2019 as the Company built up an inventory position to support the strong order backlog. The build-up continued into 2020 as the Company mitigated risk of stock-outs in response to the COVID-19 pandemic and Micronor acquisition (section 1.2).

Prepaid expenses and deposits increased during the current quarter due to accounts payable prepayments and additional software licenses to support strategic growth initiatives.

## 4.2 Other Assets

Table 12: Other assets	Q318	Q418	Q119	Q219	Q319	Q419	Q120	Q220
Property and equipment	\$ 6,609	\$ 6,297	\$ 7,637	\$ 7,410	\$ 7,120	\$ 6,752	\$ 6,527	\$ 6,587
Intangible assets	4,541	4,215	3,983	3,759	3,603	3,386	3,214	3,804
Goodwill	849	849	849	849	849	849	849	971
Deferred tax assets	-	1,056	1,146	1,175	1,327	1,915	3,660	3,405
<b>Total other assets</b>	<b>\$ 11,999</b>	<b>\$ 12,417</b>	<b>\$ 13,615</b>	<b>\$ 13,193</b>	<b>\$ 12,899</b>	<b>\$ 12,902</b>	<b>\$ 14,250</b>	<b>\$ 14,767</b>

Intangible assets increased in Q2 2020 as result of the addition of the new license and distribution agreement from FiSens GmbH (section 1.2).

Deferred tax assets increased in Q1 2020 as a result of record revenues for the quarter and the associated tax impact of inventory shipments to the US subsidiary. The decrease in Q2 2020 is consistent with the decrease in sales.

Goodwill as at Q2 2020 increased due to the Micronor acquisition (section 1.2).

## 4.3 Liabilities

Table 13: Liabilities	Q318	Q418	Q119	Q219	Q319	Q419	Q120	Q220
<b>Current liabilities</b>								
Accounts payable and accrued liabilities	\$ 4,266	\$ 3,524	\$ 3,844	\$ 3,097	\$ 4,102	\$ 4,318	\$ 6,630	\$ 5,737
Income tax payable	2,001	4,354	1,247	-	-	-	5,035	5,491
Current portion of contingent consideration	1,417	1,118	1,148	1,055	1,105	1,419	1,534	1,699
Current portion of lease liabilities	-	-	260	263	266	272	276	280
<b>Total current liabilities</b>	<b>7,684</b>	<b>8,996</b>	<b>6,499</b>	<b>4,415</b>	<b>5,473</b>	<b>6,009</b>	<b>13,475</b>	<b>13,207</b>
Contingent consideration	2,675	2,211	1,958	1,585	1,372	1,473	1,313	1,157
Deferred tax liability	302	-	-	-	-	-	-	-
Lease liabilities	-	-	1,432	1,364	1,297	1,241	1,170	1,105
<b>Total liabilities</b>	<b>\$ 10,661</b>	<b>\$ 11,207</b>	<b>\$ 9,889</b>	<b>\$ 7,364</b>	<b>\$ 8,142</b>	<b>\$ 8,723</b>	<b>\$ 15,958</b>	<b>\$ 15,469</b>

Accounts payable and accrued liabilities decreased in Q4 2018 due to inventory reduction strategies in response to the cyclical downturn of the semiconductor industry. There was a temporary increase in Q1 2019 due to timing of vendor payments. The increase in subsequent quarters was due to inventory purchases to support an improved order backlog position as the semiconductor industry showed signs of recovery. In Q1 2020, accounts payable and accrued liabilities increased significantly due primarily to accrued incentive compensation costs related to the Company's financial performance

and lengthening payment terms with suppliers. The decrease in Q2 2020 reflected settlement of outstanding payables to suppliers established in Q1 2020.

The increase in income taxes payable is consistent with the income tax expense for the quarter less decreases in the deferred tax asset and government tax credits recognized.

In Q2 2020, the Company revised its assumptions underlying the estimate of contingent consideration including future sales and discount rate. This led to an overall increase in contingent consideration which was partially offset by payments made in the quarter.

Lease liabilities increased in Q1 2019 due to the adoption of IFRS 16 leases (effective January 1, 2019), whereby any leases, which extend longer than one year, that are operating in nature for accounting purposes are capitalized. The decrease in subsequent quarters is a direct result of monthly lease payments that draw down the liability over the term of the lease.

#### 4.4 Working Capital

Management believes the Company will be able to continue to meet its liabilities and commitments as they become due and will generate sufficient amounts of cash and cash equivalents from the continued design, manufacturing and distribution of existing products and the commercialization of new products. This cash will be used to maintain capacity, meet planned growth and development activities and other corporate initiatives. The Company continues to monitor all expenditures and implement cash management strategies to ensure that it has adequate cash reserves to fund identified expenditure requirements.

The table below summarizes working capital for the eight most recently completed quarters:

<b>Table 14: Working Capital</b>	<b>Q318</b>	<b>Q418</b>	<b>Q119</b>	<b>Q219</b>	<b>Q319</b>	<b>Q419</b>	<b>Q120</b>	<b>Q220</b>
Cash and cash equivalents	\$ 42,651	\$ 42,407	\$ 37,264	\$ 31,422	\$ 34,025	\$ 33,400	\$ 41,214	\$ 41,057
Trade and other receivables	4,053	4,065	4,902	3,367	3,421	4,051	8,475	8,550
Income taxes receivable	-	-	-	1,495	971	714	-	-
Inventories	5,951	5,515	4,876	5,217	4,942	6,459	7,574	9,412
Prepaid expenses and deposits	382	468	608	590	486	575	593	775
<b>Total current assets</b>	<b>53,037</b>	<b>52,455</b>	<b>47,650</b>	<b>42,091</b>	<b>43,845</b>	<b>45,199</b>	<b>57,856</b>	<b>59,794</b>
Accounts payable and accrued liabilities	4,266	3,524	3,844	3,097	4,102	4,318	6,630	5,737
Income taxes payable	2,001	4,354	1,247	-	-	-	5,035	5,491
Current portion of contingent consideration	1,417	1,118	1,148	1,055	1,105	1,419	1,534	1,699
Current portion of lease liabilities	-	-	260	263	266	272	276	280
<b>Total current liabilities</b>	<b>7,684</b>	<b>8,996</b>	<b>6,499</b>	<b>4,415</b>	<b>5,473</b>	<b>6,009</b>	<b>13,475</b>	<b>13,207</b>
<b>Working capital</b>	<b>\$ 45,353</b>	<b>\$ 43,459</b>	<b>\$ 41,151</b>	<b>\$ 37,676</b>	<b>\$ 38,372</b>	<b>\$ 39,190</b>	<b>\$ 44,381</b>	<b>\$ 46,587</b>

The items comprising working capital have been explained in sections 4.1 to 4.3.

#### 4.5 Equity

<b>Table 15: Equity</b>	<b>Q318</b>	<b>Q418</b>	<b>Q119</b>	<b>Q219</b>	<b>Q319</b>	<b>Q419</b>	<b>Q120</b>	<b>Q220</b>
<b>Shareholders' equity</b>								
Share capital	\$ 31,058	\$ 30,833	\$ 30,303	\$ 29,542	\$ 29,340	\$ 29,366	\$ 29,366	\$ 29,486
Contributed surplus	4,576	4,463	4,607	4,741	4,787	4,838	4,953	4,984
Accumulated other comprehensive (loss) gain	(9)	(125)	(75)	(103)	(115)	(121)	(105)	15
Retained earnings	18,750	18,494	16,541	13,740	14,590	15,295	21,934	24,607
<b>Total shareholders' equity</b>	<b>\$ 54,375</b>	<b>\$ 53,665</b>	<b>\$ 51,376</b>	<b>\$ 47,920</b>	<b>\$ 48,602</b>	<b>\$ 49,378</b>	<b>\$ 56,148</b>	<b>\$ 59,092</b>

For the financial year of 2019, the Company re-purchased and cancelled 5,490,000 common shares pursuant to the 2019 NCIB at a cost of \$7,095. Share capital was reduced by the average carrying value of the shares repurchased for cancellation with the excess paid recognized as a reduction to retained earnings.

As at August 6, 2020, the Company had 104,590,072 common shares issued and outstanding and 3,961,250 stock options outstanding. The Company has no restricted share units outstanding.

<b>Table 16: Equity Instruments (in 000's)</b>	<b>Q318</b>	<b>Q418</b>	<b>Q119</b>	<b>Q219</b>	<b>Q319</b>	<b>Q419</b>	<b>Q120</b>	<b>Q220</b>
Common shares outstanding	110,742	109,868	108,012	105,217	104,477	104,514	104,514	104,590
Options outstanding	3,510	3,072	3,087	3,537	3,498	3,396	3,452	3,979
Weighted average price	\$ 1.45	\$ 1.43	\$ 1.43	\$ 1.37	\$ 1.33	\$ 1.27	\$ 1.25	\$ 1.29
Restricted share units	219	129	129	86	86	43	43	-
Closing share price	\$ 1.80	\$ 1.09	\$ 1.22	\$ 1.16	\$ 0.93	\$ 1.38	\$ 0.90	\$ 1.78

#### 4.6 Other

For details regarding the Company's financial instruments, fair values, and financial risk factors, refer to the consolidated financial statements and accompanying notes for the years ended December 31, 2019 and 2018. There have been no significant changes from year-end in management's view.

The Company defines key management as the Board of Directors and the senior management team. The remuneration of key management including salaries, bonuses, consulting fees, severance, and other benefits for the eight most recently completed quarters is as follows:

<b>Table 17: Related Party</b>	<b>Q318</b>	<b>Q418</b>	<b>Q119</b>	<b>Q219</b>	<b>Q319</b>	<b>Q419</b>	<b>Q120</b>	<b>Q220</b>
Cash-based payments	\$ 334	\$ 503	\$ 190	\$ 526	\$ 338	\$ 282	\$ 542	\$ 702
Share-based payments	75	(144)	37	147	44	60	56	54
<b>Total</b>	<b>\$ 409</b>	<b>\$ 359</b>	<b>\$ 227</b>	<b>\$ 673</b>	<b>\$ 382</b>	<b>\$ 342</b>	<b>\$ 598</b>	<b>\$ 756</b>

Significant changes are outlined as part of general and administration expense in section 3.2. Additionally, total related party expenses increased in Q2 2020 due to the inclusion of the VP Business Development, VP Semiconductor Sales, and VP Technology & Operations.

## 5 CRITICAL ACCOUNTING ESTIMATES AND POLICIES AND RISK MATTERS

### 5.1 Non-GAAP Measures

In addition to the results reported in accordance with IFRS, the Company uses various non-GAAP financial measures, which are not recognized under IFRS, as supplemental indicators of the Company's operating performance and financial position. These non-GAAP financial measures are provided to enhance the user's understanding of the Company's historical and current financial performance and its prospects for the future. Management believes that these measures provide useful information in that they exclude amounts that are not indicative of the Company's core operating results and ongoing operations and provide a more consistent basis for comparison between quarters and years. Details of such non-GAAP financial measures and how they are derived are provided in conjunction with the discussion of the financial information reported.

Since non-GAAP financial measures do not have any standardized meanings prescribed by IFRS, other companies may calculate these non-IFRS measures differently and our non-GAAP financial measures may not be comparable to similar titled measures of other companies. Accordingly, investors are cautioned not to place undue reliance on them and are also urged to read all IFRS accounting disclosures presented in the unaudited condensed interim consolidated financial statements and the accompanying notes for the three and six months ended June 30, 2020, and the consolidated financial statements and the accompanying notes for years ended December 31, 2019 and 2018.

### 5.2 Critical Accounting Policies and Estimates

The preparation of condensed interim consolidated financial statements in conformity with IFRS requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected.

The judgments, estimates, assumptions applied in the condensed interim consolidated financial statements for the three and six months ended June 30, 2020, including key sources of estimation uncertainty, were the same as those applied in the most recent annual consolidated financial statements for the years ended December 31, 2019 and 2018.

The accounting policies applied in the condensed interim consolidated financial statements were the same as those applied in the most recent annual consolidated financial statements for the years ended December 31, 2019 and 2018.

#### **Uncertain tax position**

The Company's uncertain tax position consists of payments received from the Canadian tax authority related to foreign tax credits claimed on historical tax returns from 2013 to 2017. The Company evaluates the tax position for recognition by determining whether it is probable that the position will be sustained on audit, including resolution of related appeals or litigation processes, if any. If it is determined that an uncertain income tax position is not probable of being accepted, the effect of the

uncertain income tax treatment is reflected in the determination of income taxes based on the most likely amount or, if there are a wide range of possible outcomes, the expected value. The tax position is derecognized when it is no longer probable that the position will be sustained on audit and the Company will adjust income tax expense accordingly in the period in which the position changes.

#### **Future accounting pronouncements**

The Company reviewed future accounting pronouncements and determined that there are no standards that are not yet effective and that would be expected to have a material impact on the entity in the current or future reporting period and on foreseeable future transactions.

### **5.3 Disclosure Controls and Procedures and Internal Controls over Financial Reporting**

#### **Disclosure controls and procedures**

The Company has disclosure controls and procedures in place that are designed to provide reasonable assurance that information relating to the Company that is required to be disclosed under applicable securities laws is recorded, processed, summarized, and reported in the manner specified by such laws. Management has reviewed and evaluated, or caused to be evaluated under their supervision, the design of the Company's disclosure controls and procedures as of June 30, 2020.

The Company's CEO and the CFO have reviewed and evaluated the design of the Company's disclosure controls and procedures related to the preparation of Management's Discussion and Analysis and the Company's condensed interim consolidated financial statements as at June 30, 2020. The Company's CEO and CFO have concluded that the Company's disclosure controls and procedures were designed, at a reasonable assurance level, to ensure that material information relating to the Company and its consolidated subsidiaries would be made known to them by others within those entities, particularly during the period in which the Management's Discussion and Analysis and the condensed interim consolidated financial statements contained in this report were being prepared.

#### **Internal control over financial reporting**

The Company's management, with the participation of its CEO and CFO, are also responsible for establishing and maintaining adequate internal control over financial reporting, as defined in National Instrument 52-109 – *Certification of Disclosure in Issuers' Annual and Interim Filings*, in order to provide reasonable assurance regarding the reliability and accuracy of the Company's financial reporting and the preparation of its financial statements for external purposes in accordance with IFRS.

The Company's CEO and CFO have evaluated, or caused to be evaluated under their supervision, the design of the Company's internal control over financial reporting as of June 30, 2020.

There have been no changes in the Company's disclosure controls or internal control over financial reporting during the three months ended June 30, 2020 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting. The Company's CEO and CFO will certify Photon Control's quarterly filings with the Canadian securities regulatory authorities.



#### **5.4 Risks and Uncertainties**

Our business is subject to significant risks and uncertainties and past performance is no guarantee of future performance. The risks and uncertainties in the Company's most recently filed AIF, which is available on the Canadian System for Electronic Document Analysis and Retrieval website ("SEDAR") ([www.sedar.com](http://www.sedar.com)) 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 our common shares, could be materially adversely affected.

#### **5.5 Cautionary Note Regarding Forward Looking Statements**

This MD&A 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 expected quantity, price and delivery times; our ability to attract new business; continued and future demand for the Company's products; continued sales to the Company's major customers; our operations not being adversely affected by supply, operating, cyber security, litigation or regulatory risks; our ability to react to the cyclical nature of the semiconductor industry; our ability to enhanced 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 we expect to drive continued demand for the Company's products; expected growth within the semiconductor industry and the Company's reliance on the financial health of the semiconductor industry from which it derives 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 of the Company in the future; potential inability of investors to sell their common shares of the Company; our future performance being dependent on our ability to hire and retain qualified personnel; and the Company is 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 the Company's ability to retain its major customers; risks associated with a lengthy sales cycle; risks related to our dependency on the semiconductor industry and our ability to respond to industry cyclicality; risks associated with the Company's ability to expand its manufacturing capacity or reduce costs in response to rapid shifts in demand for the Company's products; risks associated with continuous technological change, evolving industry standards, shifting customer needs and new product introductions and enhancements; risks associated with failure to operate our business in accordance with our business plan; uncertainty relating to the timing of product development and commercial launch; risks associated with competition; operational risks associated with manufacturing and our dependence on sole or limited source suppliers; risks associated with compliance with customers' requirements; uncertainty relating to operating results; risks related to legal, regulatory and tax environments in which we conduct our business; risks associated with product liability claims; risks related to product pricing; risks related to inability to use or access information systems, or related to breaches of our network security; risks associated with manufacturing interruptions or delays; risks relating to legal proceedings and with the Company's intellectual property; risks associated with infringing on the intellectual property rights of others; uncertainty relating to general economic conditions; risks related to tariffs or other trade restrictions; risks related to future mergers or acquisitions; uncertainty related to international operations, including currency fluctuations, additional development projects, other business opportunities and disruption due to the spread of the COVID-19 virus; risks associated with the adverse impact of climate change; risks related to the volatility of the trading price and volume of the common shares of the Company; risks associated with maintaining an active market for the common shares of the Company; risks associated with our directors and officers; risks associated with attracting and retaining qualified personnel; 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 "Risks and Uncertainties".

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.

