

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

FORM 20-F

(Mark One)

REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934

OR

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
For the fiscal year ended December 31, 2019

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

OR

SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Date of event requiring this shell company report

Commission file number: 000-55135

POET TECHNOLOGIES INC.  
(Exact name of Registrant as specified in its charter)

Ontario, Canada  
(Jurisdiction of incorporation or organization)

1107 – 120 Eglinton Avenue East  
Toronto, Ontario, M4P 1E2, Canada  
(Address of principal executive offices)

Suresh Venkatesan, CEO

Email: [svv@poet-technologies.com](mailto:svv@poet-technologies.com)  
(Name, Telephone, Email and Address of Company Contact Person)

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Securities registered or to be registered pursuant to Section 12(b) of the Act: None.

Securities registered or to be registered pursuant to Section 12(g) of the Act: Common Stock, no par value.

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act: Not Required.

The number of outstanding shares of common stock, no par value, as of December 31, 2019 was 288,363,553

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.  Yes  No

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.

Yes  No

Note – Checking the box above will not relieve any registrant required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 from their obligations under those Sections.

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Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes  No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or an emerging growth company. See definition of "large accelerated filer," "accelerated filer," and "emerging growth company" in the Exchange Act.

Large accelerated filer  Accelerated filer  Emerging Growth Company  Non-accelerated filer

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S GAAP  International Financial Reporting Standards as issued by the International Accounting Standards Board  Other

If "Other" has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow.

Item 17  Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).  Yes  No

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POET TECHNOLOGIES INC.  
FORM 20-F ANNUAL REPORT  
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## INTRODUCTION

POET Technologies Inc. is organized under the Business Corporations Act (Ontario). In this Annual Report, the “Company”, “we”, “our”, “POET” and “us” refer to POET Technologies Inc. and its subsidiaries (unless the context otherwise requires). We refer you to the documents attached as exhibits hereto for more complete information than may be contained in this Annual Report. Our principal Canadian corporate offices are located at Suite 1107, 120 Eglinton Avenue East, Toronto, Ontario M4P 1E2, Canada. Our U.S. office is located in the U.S. 1605 N. Cedar Crest Boulevard, Allentown, PA, 18104. Our telephone number in Toronto is (416) 368-9411.

We file reports and other information with the Securities and Exchange Commission (“SEC”) located at 100 F Street NE, Washington, D.C. 20549. You may obtain copies of our filings with the SEC by accessing their website located at [www.sec.gov](http://www.sec.gov). We also file reports under Canadian regulatory requirements on SEDAR; you may access our reports filed on SEDAR by accessing the website [www.sedar.com](http://www.sedar.com).

This Annual Report (including the consolidated audited financial statements for the years ended December 31, 2019, 2018 and 2017 attached thereto, together with the auditors’ report thereon), and the exhibits thereto shall be deemed to be incorporated by reference as exhibits to the Registration Statement of the Company on Form F- 10, as amended (File No. 333-227873), and to be a part thereof from the date on which this report was filed, to the extent not superseded by documents or reports subsequently filed or furnished.

Business of POET Technologies Inc.

POET designs, develops, manufactures and sells integrated opto-electronic solutions for data communications and telecommunications markets. POET has developed and is marketing its proprietary POET Optical Interposer™ platform which utilizes a novel waveguide technology that allows the integration of electronic and photonic devices into a single multi-chip module. The integration of devices into a single package is achieved by applying advanced wafer-level semiconductor manufacturing techniques and novel packaging methods developed by POET. POET's Optical Interposer eliminates costly components, assembly and testing methods employed in conventional photonics solutions. In addition to lowering costs compared to conventional devices, POET's Optical Interposer provides a flexible and scalable platform for a variety of photonics applications ranging from data centers to consumer products.

On November 8, 2019, the Company closed on the sale of its wholly owned subsidiary, DenseLight Semiconductors Pte. Ltd., to a consortium of investors organized under DenseLight Semiconductor Technology (Shanghai) Ltd. ("DL Shanghai") for \$26,000,000. POET shareholders approved the sale with 99% of votes submitted at a Special Meeting held on October 24, 2019, ratifying the Share Sale Agreement ("SSA") signed by the Company on August 20, 2019. The buyer assumed control of DenseLight upon closing. The sale proceeds are being paid over multiple tranches. The first tranche payment was received on November 8, 2019 in the amount of US\$8 million. Shares of DenseLight were placed in escrow in the Buyer's name, to be released by the escrow agent to the Buyer upon receipt of the remaining payments. The second tranche payment was made in two installments, with the first paid on February 19, 2020 consisting of US\$4.75 million and the second on March 30, 2020 of US\$8.25 million for a total paid to date of US\$21.0 million. The remaining payment of US\$5 million is expected to be made on or before May 31, 2020. Upon closing, the Company recognized a gain on the sale of \$8,707,280. The Company received an additional \$2,000,000, in excess of the sale proceeds, with the most recently paid two tranches which was immediately paid to Oak Capital on behalf of the Buyer for due diligence, legal and other expenses.

Although the Company continued to operate as a single entity until the sale was closed, to meet financial reporting standards, the Company was required to report DenseLight as "discontinued operations" separate from the remainder of the Company from January 1, 2020 and until Friday, November 8, 2019. Revenue and expenses, and gains and losses relating to the discontinued operations have been removed from the results of continuing operations and are shown as a single line item on the face of the consolidated statement of comprehensive loss.

During the year ended December 31, 2019, the Company reported net loss from continuing operations, before taxes of \$11,727,372.

The net loss from continuing operations included \$2,083,815 spent on research and development activities directly related to the development and commercialization of the POET Optical Interposer Platform. Research and development included \$237,311 of non-cash fair value stock-based compensation. \$6,697,387 was spent on selling, marketing and administration expenses which included non-cash operating costs of \$2,650,830 related to the fair value of stock-based compensation and \$243,674 related to depreciation and amortization.

The Company incurred \$819,911 of interest expense and \$372,340 of debt issuance costs related to \$7,729,921 borrowed at various dates and from various lenders during 2019. The Company repaid \$4,000,000 of the borrowed funds on November 8, 2019.

During 2019, the Company performed an impairment analysis on its goodwill and intangible assets related to the acquisition of BB Photonics in 2016. The Company determined that these assets were impaired and consequently recognized an impairment loss of \$1,764,459.

Net income from discontinued operations, net of taxes was \$5,481,757. Discontinued operations generated revenue of \$4,426,355 from the sale of sensing products and non-recurring engineering ("NRE"). Gross profit was \$3,224,982 or 73%. Included in the net income from discontinued operations, net of taxes was \$5,677,222 spent on research and development and \$1,950,526 spent on selling, marketing and administration. Discontinued operations had other income of \$1,251,737 resulting primarily from cash credits either collected or recoverable from the Economic Development Board ("EDB") of Singapore. The income from discontinued operations, net of taxes included a gain on the sale of discontinued operations, net of taxes of \$8,707,280.

The Company's balance sheet as of December 31, 2019 reflects assets with a book value of \$24,077,355 compared to \$25,137,903 as of December 31, 2018. Eighty-four percent (84%) of the book value at December 31, 2019 was in current assets consisting primarily of receivable from the sale of discontinued operations of \$18,000,000 compared to twenty-seven percent (27%) of the book value as of December 31, 2018, or \$6,888,264, was in current assets consisting primarily of cash and other current assets.

As at December 31, 2019, the Company had a working capital balance of \$15,354,149. The Company is satisfied that it will have sufficient funds meet its operating requirements over the next 12 months.

#### Financial and Other Information

In this Annual Report, unless otherwise specified, all dollar amounts are expressed in United States Dollars ("US\$", "USD" or "\$").

#### Cautionary Statements Regarding Forward-Looking Statements

This Annual Report on Form 20-F and other publicly available documents, including the documents incorporated herein and therein by reference contain forward- looking statements and information within the meaning of U.S. and Canadian securities laws. Forward-looking statements and information can generally be identified by the use of forward- looking terminology or words, such as, "continues", "with a view to", "is designed to", "pending", "predict", "potential", "plans", "expects", "anticipates", "believes", "intends", "estimates", "projects", and similar expressions or variations thereon, or statements that events, conditions or results "can", "might", "will", "shall", "may", "must", "would", "could", or "should" occur or be achieved and similar expressions in connection with any discussion, expectation, or projection of future operating or financial performance, events or trends. Forward- looking statements and information are based on management's current expectations and assumptions, which are inherently subject to uncertainties, risks and changes in circumstances that are difficult to predict.

Our actual results, performance and achievements may differ material from those expressed in, or implied by, the forward-looking statements and information in this Annual Report as a result of various risks, uncertainties and other factors, many of which are difficult to predict and generally beyond the control of the Company, including without limitation:

- o we have a limited operating history;
- o our need for additional financing, which may not be available on acceptable terms or at all;
- o the possibility that we will not be able to compete in the highly competitive semiconductor market;
- o the risk that our objectives will not be met within the timelines we expect or at all;
- o research and development risks;
- o the risks associated with successfully protecting patents and trademarks and other intellectual property;
- o the need to control costs and the possibility of unanticipated expenses;
- o manufacturing and development risks;
- o the risk that the price of our common stock will be volatile;
- o the risk that shareholders' interests will be diluted through future stock offerings, option and warrant exercises; and
- o other risks and uncertainties described in ITEM 3.D. "Risk Factors".

For all of the reasons set forth above, investors should not place undue reliance on forward-looking statements. Other than any obligation to disclose material information under applicable securities laws or otherwise as maybe required by law, we undertake no obligation to revise or update any forward-looking statements after the date hereof.

Data relevant to estimated market sizes for our technologies under development are presented in this Annual Report. These data have been obtained from a variety of published resources including published scientific literature, websites and information generally available through publicized means. The Company attempts to source reference data from multiple sources whenever possible for confirmatory purposes. However, the Company has not independently verified the accuracy and completeness of this data.

## PART I

### ITEM 1. IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISORS

A. Not Required.

### ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE

Not Required.

### ITEM 3. KEY INFORMATION

#### A. Selected Financial Data

The selected financial data of the Company for the years ended December 31, 2019, 2018 and 2017 was derived from the audited annual consolidated financial statements of the Company, which have been audited by Marcum LLP, independent registered public accounting firm. Selected financial data of the Company for the years ended December 31, 2016 and 2015 was derived from the consolidated financial statements of the Company, which are not included in this Annual Report.

The information contained in the selected financial data for the 2019, 2018 and 2017 years is qualified in its entirety by reference to the Company's audited consolidated financial statements and related notes included under the heading "ITEM 17". Financial Statements" and should be read in conjunction with such financial statements and related notes and with the information appearing under the heading "ITEM 5".

Operating and Financial Review and Prospects." Except where otherwise indicated, all amounts are presented in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB").

Since its formation, the Company has financed its operations from public and private sales of equity securities, proceeds received upon the exercise of warrants and stock options, research and development contracts from U.S. government agencies, sales of the Company's photonic products and, prior to 2012, by sales of solar energy equipment products. The Company has never been profitable, so its ability to finance operations has been dependent on equity financings. Since 2016, through its former subsidiary, DenseLight, the Company generated cash flow from the sale of its photonic sensing products and NRE. We believe, however, that it will need to rely on the sale of equity securities, debt securities or a combination of both to provide funds for its activities on an ongoing basis until we have concluded the development of the Optical Inter-poser. See ITEM 3.D. "Risk Factors."

The Company has not declared any dividends since incorporation and does not anticipate that it will do so in the foreseeable future.



Consolidated Statements of Operations Under  
International Financial Reporting Standards  
(US\$)

	2019	Reclassified (1)			2015
	2018	2017	2016		
<b>Operating Expenses</b>					
Selling, marketing and administrative	\$ 6,697,387	\$ 6,173,875	\$ 5,887,709	\$ 8,178,901	\$ 8,614,109
Research and development	2,083,815	2,262,476	2,039,421	2,122,983	3,532,492
Impairment loss	1,764,459	-	-	-	-
Interest expense	819,911	-	-	63,522	-
Amortization of debt issuance costs	372,340	-	-	-	-
Loss on disposal of property and equipment	-	-	-	46,738	-
Other income, including interest	(10,540)	(14,234)	(18,279)	(52,845)	(76,431)
Operating Expenses	11,727,372	8,422,117	7,908,851	10,359,299	12,070,170
Income tax recovery	(292,740)	-	-	-	-
Net loss from continuing operations	(11,434,632)	(8,422,117)	(7,908,851)	(10,359,299)	(12,070,170)
Income (loss) from discontinued operations, net of taxes	5,481,757	(7,900,662)	(4,888,946)	(2,865,385)	-
Net loss	(5,952,875)	(16,322,779)	(12,797,797)	(13,224,684)	(12,070,170)
Deficit, beginning of year	(133,195,932)	(116,873,153)	(104,075,356)	(90,850,672)	(78,780,502)
Deficit, end of year	\$ (139,148,807)	\$ (133,195,932)	\$ (116,873,153)	\$ (104,075,356)	\$ (90,850,672)
Basic and diluted loss per share, continuing operations	\$ (0.04)	\$ (0.03)	\$ (0.03)	\$ (0.05)	\$ (0.07)
Basic and diluted income (loss) per share, discontinued operations	\$ 0.02	\$ (0.03)	\$ (0.02)	\$ (0.01)	\$ 0.00
Basic and diluted loss per share	\$ (0.02)	\$ (0.06)	\$ (0.05)	\$ (0.06)	\$ (0.07)

(1) The information above has been reclassified to present DenseLight results as discontinued operations for the years 2016 – 2018.

Consolidated Statements of Discontinued Operations Under  
International Financial Reporting Standards  
(US\$)

	For the Period from January 1, 2019 to November 8,		For the Years Ended December 31,	
	2019	2018	2017	2016
Revenue	\$ 4,426,355	\$ 3,888,185	\$ 2,794,044	\$ 1,861,747
Cost of Revenue	1,201,373	1,475,969	1,342,691	946,001
Gross Margin	3,224,982	2,412,216	1,451,353	915,746
Operating Expenses				
Selling, marketing and administrative	1,950,526	5,515,329	4,983,032	3,242,703
Research and development	5,677,222	6,430,328	3,403,452	1,042,842
Interest expense	74,494	-	-	-
Impairment loss	-	156,717	-	-
Other income	(1,251,737)	(1,491,556)	(1,748,245)	(14,027)
Operating Expenses	6,450,505	10,610,818	6,638,239	4,271,518
Net loss from operations	(3,225,523)	(8,198,602)	(5,186,886)	(3,355,772)
Change in fair value contingent consideration	-	-	-	283,130
Gain on sale of discontinued operations, net of taxes	8,707,280	-	-	-
Net income (loss) from discontinued operations	5,481,757	(8,198,602)	(5,186,886)	(3,072,642)
Income tax recovery	-	297,940	297,940	207,257
Income (loss) from discontinued operations, net of income taxes	\$ 5,481,757	\$ (7,900,662)	\$ (4,888,946)	\$ (2,865,385)

Consolidated Statements of Financial Position  
Under International Financial Reporting Standards  
(US\$)

	December 31,				
	2019	2018	2017	2016	2015
<b>Assets</b>					
Cash and cash equivalents	\$ 1,428,129	\$ 2,567,868	\$ 4,974,478	\$ 14,376,282	\$ 14,409,996
Short-term investments	-	-	-	589,275	-
Accounts receivable	-	946,944	493,925	292,849	-
Receivable from the sale of discontinued operations	18,000,000	-	-	-	-
Prepays and other current assets	831,265	2,936,619	1,957,727	758,917	150,923
Inventory	-	436,833	524,582	1,116,880	-
Property and equipment	3,143,060	9,299,513	8,278,170	9,364,210	947,107
Patents and licenses	452,384	466,714	456,250	449,676	426,813
Right of use asset	222,517	-	-	-	-
Intangible assets	-	802,409	839,637	876,865	-
Goodwill	-	7,681,003	7,681,003	7,681,003	-
<b>Total Assets</b>	<b>\$ 24,077,355</b>	<b>\$ 25,137,903</b>	<b>\$ 25,205,772</b>	<b>\$ 35,505,957</b>	<b>\$ 15,934,839</b>
<b>Liabilities</b>					
Accounts payable and accrued liabilities	\$ 1,725,708	\$ 3,040,422	\$ 810,593	\$ 1,624,344	\$ 515,421
Convertible debentures	3,089,033	-	-	-	-
Lease liability	223,758	-	-	-	-
Deferred tax liability	-	1,000,427	1,298,367	1,596,307	-
Deferred rent	-	1,814	24,031	42,665	-
<b>Total Liabilities</b>	<b>5,038,499</b>	<b>4,042,663</b>	<b>2,132,991</b>	<b>3,263,316</b>	<b>515,421</b>
<b>Shareholders' Equity</b>					
Share capital	112,144,172	112,028,194	103,616,221	103,357,862	81,027,171
Equity component of loan payable	627,511	-	-	-	-
Warrants	8,525,358	8,303,738	5,985,378	5,985,378	2,013,747
Contributed surplus	38,799,337	36,042,754	32,102,967	29,062,874	25,618,159
Accumulated other comprehensive loss	(1,908,715)	(2,083,514)	(1,758,632)	(2,088,117)	(2,388,987)
Deficit	(139,148,807)	(133,195,932)	(116,873,153)	(104,075,356)	(90,850,672)
<b>Total Equity</b>	<b>19,038,856</b>	<b>21,095,240</b>	<b>23,072,781</b>	<b>32,242,641</b>	<b>15,419,418</b>
<b>Total Liabilities and Equity</b>	<b>\$ 24,077,355</b>	<b>\$ 25,137,903</b>	<b>\$ 25,205,772</b>	<b>\$ 35,505,957</b>	<b>\$ 15,934,839</b>

## B. Capitalization and Indebtedness

During 2019 the Company closed five tranches of a private placement of the Convertible Debentures that raised gross proceeds of \$3,729,921. The Convertible Debentures, bear interest at 12% per annum, compounded annually with 1% payable at the beginning of each month and mature two years from the date of issue. \$3,429,105 was owed on convertible debentures at April 22, 2020.

A summary of the Company's indebtedness at April 22, 2020 is as follows:

Issue Date	Maturity Date	Loan	Repayment/Conversion	Balance
03-Apr-19	03-Apr-21	\$ 1,449,752	\$ -	1,449,752
03-May-19	03-May-21	1,087,408	(128,788)	958,620
03-Jun-19	03-Jun-21	641,328	(95,105)	546,223
02-Aug-19	02-Aug-21	414,205	(76,923)	337,282
06-Sep-19	06-Sep-21	137,228	-	137,228
Balance		\$ 3,729,921	\$ (300,816)	\$ 3,429,105

## C. Reasons for the Offer and Use of Proceeds

Not Required.

## D. Risk Factors

We are subject to various risks, including those described below, which could materially adversely affect our business, financial condition and results of operations and, in turn, the value of our securities. In addition, other risks not presently known to us or that we currently believe to be immaterial may also adversely affect our business, financial condition and results of operations, perhaps materially. The risks discussed below also include forward-looking statements and information within the meaning of U.S. and Canadian securities laws that involve risks and uncertainties. The Company's actual results may differ materially from the results discussed in the forward-looking statements and information Factors that might cause such differences include those discussed. Before making an investment decision with respect to any of our securities, you should carefully consider the following risks and uncertainties described below and elsewhere in this Annual Report. See also "Cautionary Statement Regarding Forward-Looking Statements."

### Risks Related to Our Business

*We divested our major operating asset, adopted a new "fab-light" strategy, and we plan to focus on the Optical Interposer as our main business. Any or all of these decisions if incorrect may have a material adverse effect on the results of our operations, financial position and cash flows, and pose further risks to the successful operation of our business over the short and long-term.*

There are substantial risks associated with our adoption of a "fab-light" strategy, including the immediate loss of all or a substantial part of our revenue, the loss of control over an internal development asset, and the loss of key technical knowledge available from personnel who will no longer be employed by the Company, many of whom we may have to replace.

We have some previous experience with managing development without an internal development resource under a similar “fab-light” strategy which was not successful, and there is no guarantee that our new approach to operating a company with our chosen strategy will be successful. Further, our strategy will be solely dependent on the future market acceptance and sale of Optical Interposer-based solutions, which are either not fully developed or are in qualification stages, and which no customer has yet fully committed to adopting in a production product.

We have taken substantial measures to protect POET’s intellectual property in the Optical Interposer, including development and production with a separate third-party company which engaged no DenseLight engineering personnel. We conducted development of component devices separately at our DenseLight facility and took measures to protect POET’s intellectual property on those developments as well. However, we cannot guarantee that all our measures to protect our intellectual property on either the POET Optical Interposer or its component devices have been totally effective. Following divestment, we will have little or no control over any leakage of certain proprietary information or know-how and additional development with the DenseLight operation on component devices may expose our intellectual property to parties that we cannot control. Further, we cannot guarantee that DenseLight or any other third-party that we rely on to perform development, manufacturing, packaging or testing services will perform as expected and produce the devices we will need to grow our Optical Interposer business.

There can be no assurance that we will be successful in addressing these or any other significant risks we may encounter in the divestment of DenseLight, the adoption of a “fab-light” strategy or the focus of our business solely on the Optical Interposer.

***We may not be able to generate sufficient cash to service our debt obligations.***

Throughout 2019, we sold unsecured convertible debentures. Our ability to make continued payments on our debt will depend on our financial and operating performance, which may fluctuate significantly from quarter to quarter, and is subject to prevailing economic conditions and financial, business and other factors, many of which are beyond our control. We cannot assure you that we will be able to generate sufficient cash flow or that we will be able to borrow funds from another source in amounts sufficient to enable us to service our debt. If we are not able to generate sufficient cash flow from operations or to borrow sufficient funds to service our debt, we may be required to sell equity or assets, reduce expenditures, refinance all or a portion of our existing debt or obtain additional financing. We cannot assure you that we will be able to refinance our debt, sell assets or equity or borrow more funds on terms acceptable to us, if at all.

***The process of developing new, technologically advanced products in semiconductor manufacturing and photonics products is highly complex and uncertain, and we cannot guarantee a positive result.***

The development of new, technologically advanced products is a complex and uncertain process requiring frequent innovation, highly-skilled engineering and development personnel and significant capital, as well as the accurate anticipation of technological and market trends. We cannot assure you that we will be able to identify, develop, manufacture, market or support new or enhanced products successfully or on a timely basis. Further, we cannot assure you that our new products will gain market acceptance or that we will be able to respond effectively to product introductions by competitors, technological changes or emerging industry standards. We also may not be able to develop the underlying core technologies necessary to create new products and enhancements, license these technologies from third parties, or remain competitive in our markets.

*If our customers do not qualify our products for use on a timely basis, our results of operations may suffer.*

Prior to the sale of new products, our customers typically require us to “qualify” our products for use in their applications. At the successful completion of this qualification process, we refer to the resulting sales opportunity as a “design win.” Additionally, new customers often audit our manufacturing facilities and perform other evaluations during this qualification process. The qualification process involves product sampling and reliability testing and collaboration with our product management and engineering teams in the design and manufacturing stages. If we are unable to accurately predict the amount of time required to qualify our products with customers, or are unable to qualify our products with certain customers at all, then our ability to generate revenue could be delayed or our revenue would be lower than expected and we may not be able to recover the costs associated with the qualification process or with our product development efforts, which would have an adverse effect on our results of operations.

*Customer demand for paid non-recurring engineering work (NRE) is difficult to forecast accurately and, as a result, we may be unable to match our engineering resources with customer engagements.*

Much of our revenue during the coming years will be for non-recurring engineering work (NRE) related to demonstrating the functionality of the POET Optical Interposer in various applications. At any given time, we have multiple discussions with potential customers ongoing, some of which mature into proposals and a portion of those into paid development work. It is not possible to estimate in advance which of the multiple discussions is likely to convert into a paid project. Nevertheless, we make planning and spending decisions, including determining the levels of NRE that we will seek and accept based on a variety of factors, including the market position and prestige of the customer, our determination of the likelihood of success of applying our solution and the size and likely success of any products that may result. Our decisions involve internal staffing levels, contracts with vendors and co-development partners, sub-component procurement, capital expenditures, commitments to production schedules and other resource requirements. While our customers may provide us with forecasts of their potential needs, they are typically not contractually committed to more than initial phases of design work, with subsequent work dependent on both the success of our efforts and theirs. Orders for additional engineering work may increase, decrease, cancel or delay at any time without significant penalty. The short-term nature of commitments by our customers and the possibility of unexpected changes in demand reduces our ability to accurately estimate future NRE revenues and our own resource levels. If any of our estimates of the number and scope of projects undertaken for customers is incorrect, or customers decrease, stop or delay purchasing our services or products for any reason, our business and results of our operations would be harmed.

*The markets in which we operate are highly competitive, which could result in lost sales and lower revenues.*

The market for optical components and modules is highly competitive and this competition could result in our existing customers moving their orders to our competitors. We are aware of a number of companies that have developed or are developing optical component products, including LEDs, lasers, pluggable components, modules and subsystems, among others, that compete (or may in the future compete) directly with our current and proposed product offerings.

Some of our current competitors, as well as some of our potential competitors, have longer operating histories, greater name recognition, broader customer relationships and industry alliances and substantially greater financial, technical and marketing resources than we do. We may not be able to compete successfully with our competitors and aggressive competition in the market may result in lower prices for our products and/or decreased gross margins. Any such development could have a material adverse effect on our business, financial condition and results of operations

*We have limited operating history in the datacom market, and our business could be harmed if this market does not develop as we expect.*

The initial target market for our Optical Interposer-based optical engine is the datacom market and we have no experience in selling products in this market. We may not be successful in developing a product for this market and even if we do, it may never gain widespread acceptance by large data center operators. If our expectations for the growth of the datacom market are not realized, our financial condition or results of operations may be adversely affected.

*We depend on a limited number of suppliers and key contract manufacturers who could disrupt our business and technology development activities if they stopped, decreased, delayed or were unable to meet our demand for shipments of their products or manufacturing of our products.*

We depend on a limited number of suppliers of epitaxial wafers and contract manufacturers for our Indium Phosphide ("InP") and Optical Interposer development and production activities. Some of these suppliers are sole source suppliers. We typically have not entered into long-term agreements with our suppliers. As a result, these suppliers generally may stop supplying us materials and other components at any time. Our reliance on a sole supplier or limited number of suppliers could result in delivery problems, reduced control over technology development, product development, pricing and quality, and an inability to identify and qualify another supplier in a timely manner. Some of our suppliers that may be small or under-capitalized may experience financial difficulties that could prevent them from supplying us materials and other components. In addition, our suppliers, including our sole source suppliers, may experience manufacturing delays or shut downs due to circumstances beyond their control such as earthquakes, floods, fires, labor unrest, political unrest or other natural disasters. A Change in supplier could require technology transfer that could require multiple iterations of test wafers. This could result in significant delays in resumption of production.

Any supply deficiencies relating to the quality or quantities of materials or equipment we use to manufacture our products could materially and adversely affect our ability to fulfill customer orders and our results of operations. Lead times for the purchase of certain materials and equipment from suppliers have increased, and in some cases have limited our ability to rapidly respond to increased demand and may continue to do so in the future. To the extent we introduce additional contract manufacturing partners, introduce new products with new partners and/or move existing internal or external production lines to new partners, we could experience supply disruptions during the transition process. In addition, due to our customers' requirements relating to the qualification of our suppliers and contract manufacturing facilities and operations, we cannot quickly enter into alternative supplier relationships, which prevents us from being able to respond immediately to adverse events affecting our suppliers.

***Our international business and operations expose us to additional risks.***

We have significant tangible assets located outside Canada and the United States. We have operating facilities are located in Singapore. Conducting business outside Canada and the United States subjects us to a number of additional risks and challenges, including:

- periodic changes in a specific country's or region's economic conditions, such as recession;
- licenses and other trade barriers;
- the provision of services may require export licenses;
- environmental regulations;
- certification requirements;
- fluctuations in foreign currency exchange rates;
- inadequate protection of intellectual property rights in some countries;
- preferences of certain customers for locally produced products;
- potential political, legal and economic instability, foreign conflicts, and the impact of regional and global infectious illnesses in the countries in which we and our customers, suppliers and contract manufacturers are located;
- Canadian and U. S. and foreign anticorruption laws;
- seasonal reductions in business activities in certain countries or regions; and
- fluctuations in freight rates and transportation disruptions.

These factors, individually or in combination, could impair our ability to effectively operate one or more of our foreign facilities or deliver our products, result in unexpected and material expenses, or cause an unexpected decline in the demand for our products in certain countries or regions. Our failure to manage the risks and challenges associated with our international business and operations could have a material adverse effect on our business.

***If we fail to attract and retain key personnel, our business could suffer.***

Our future success depends, in part, on our ability to attract and retain key personnel, including executive management. Competition for highly skilled technical personnel is extremely intense and we may face difficulty identifying and hiring qualified engineers in many areas of our business. We may not be able to hire and retain such personnel at compensation levels consistent with our existing compensation and salary structure. Our future success also depends on the continued contributions of our executive management team and other key management and technical personnel, each of whom would be difficult to replace. The loss of services of these or other executive officers or key personnel or the inability to continue to attract qualified personnel could have a material adverse effect on our business.



*Our predecessor company received subsidies and other types of funding from government agencies in the locations in which we operate. The funding agreements stipulate that if we do not comply with various covenants, including eligibility requirements, and/or do not achieve certain pre-defined objectives, those government agencies may reclaim all or a portion of the funding provided. If this were to occur, we would either not be in a position to repay the claimed amounts or would have to borrow large sums in order to do so or refinance with dilutive financing, which could adversely affect our financial condition.*

Our predecessor company, Opel Solar and its wholly-owned subsidiary ODIS, received research and development grants from the United States Air Force and from NASA. We cannot guarantee that one or more agencies will not seek repayment of all or a portion of the funds provided, and if this were to occur, we could have to borrow large sums or refinance with dilutive financing in order to make the repayments, which would adversely affect our financial condition.

*A significant disruption in, or breach in security of, our information technology systems or violations of data protection laws could materially adversely affect our business and reputation.*

In the ordinary course of business, we collect and store confidential information, including proprietary business information belonging to us, our customers, suppliers, business partners and other third parties and personally identifiable information of our employees. We rely on information technology systems to protect this information and to keep financial records, process orders, manage inventory, coordinate shipments to customers, and operate other critical functions. Our information technology systems may be susceptible to damage, disruptions or shutdowns due to power outages, hardware failures, telecommunication failures and user errors. If we experience a disruption in our information technology systems, it could result in the loss of sales and customers and significant incremental costs, which could materially adversely affect our business. We may also be subject to security breaches caused by computer viruses, illegal break-ins or hacking, sabotage, or acts of vandalism by disgruntled employees or third parties. The risk of a security breach or disruption, particularly through cyberattack or cyber intrusion, including by computer hackers, foreign governments and cyber terrorists, has increased as the number, intensity and sophistication of attempted attacks and intrusions from around the world have increased. Our information technology network and systems have been and, we believe, continue to be under constant attack. Accordingly, despite our security measures or those of our third-party service providers, a security breach may occur, including breaches that we may not be able to detect. Security breaches of our information technology systems could result in the misappropriation or unauthorized disclosure of confidential.

***We have a history of large operating losses. We may not be able to achieve or sustain profitability in the future and as a result we may not be able to maintain sufficient levels of liquidity.***

We have historically incurred losses and negative cash flows from operations since our inception. As of December 31, 2019, we had an accumulated deficit of \$139,148,807. For the years ended December 31, 2019 and December 31, 2018, we incurred net losses of \$5,952,875 and \$16,322,779 respectively.

The Company had working capital of \$15,354,149 on December 31, 2019 compared to \$3,847,842 on December 31, 2018. The Company's balance sheet as of December 31, 2019 reflects assets with a book value of \$24,077,355 compared to \$25,137,903 as of December 31, 2018. Eighty-four percent (84%) of the book value at December 31, 2019 was in current assets consisting primarily of receivable from the sale of discontinued operations of \$18,000,000 compared to twenty-seven percent (27%) of the book value as of December 31, 2018, or \$6,888,264, was in current assets consisting primarily of cash and other current assets.

The Company is satisfied that it has sufficient working capital to meet its operating requirements over the next 12 months.

The optical communications industry is subject to significant operational fluctuations. In order to remain competitive, we incur substantial costs associated with research and development, qualification, production capacity and sales and marketing activities in connection with products that may be purchased, if at all, long after we have incurred such costs. In addition, the rapidly changing industry in which we operate, the length of time between developing and introducing a product to market, frequent changing customer specifications for products, customer cancellations of products and general down cycles in the industry, among other things, make our prospects difficult to evaluate. As a result of these factors, it is possible that we may not (i) generate sufficient positive cash flow from operations; (ii) raise funds through the issuance of equity, equity-linked or convertible debt securities; or (iii) otherwise have sufficient capital resources to meet our future capital or liquidity needs. There are no guarantees we will be able to generate additional financial resources beyond our existing balances.

***We may not be able to obtain additional capital when desired, on favorable terms or at all.***

We operate in a market that makes our prospects difficult to evaluate and, to remain competitive, we will be required to make continued investments in capital equipment, facilities and technology. We expect that substantial capital will be required to continue technology and product development, to expand our manufacturing capacity if we need to do so and to fund working capital for anticipated growth. If we do not generate sufficient cash flow from operations or otherwise have the capital resources to meet our future capital needs, we may need additional financing to implement our business strategy.

If we raise additional funds through the issuance of our common stock or convertible securities, the ownership interests of our stockholders could be significantly diluted. These newly issued securities may have rights, preferences or privileges senior to those of existing stockholders. Additional financing may not, however, be available on terms favorable to us, or at all, if and when needed, and our ability to fund our operations, take advantage of unanticipated opportunities, develop or enhance our infrastructure or respond to competitive pressures could be significantly limited. If we cannot raise required capital when needed, including under our Short Form Prospectus filed with the Canadian Securities Exchange and the SEC in October 2016 and refiled in November 2018, we may be unable to continue technology and product development, meet the demands of existing and prospective customers, adversely affecting our sales and market opportunities and consequently our business, financial condition and results of operations.

***We may be subject to disruptions or failures in information technology systems and network infrastructures that could have a material adverse effect on our business and financial condition.***

We rely on the efficient and uninterrupted operation of complex information technology systems and network infrastructures to operate our business. A disruption, infiltration or failure of our information technology systems as a result of software or hardware malfunctions, system implementations or upgrades, computer viruses, third-party security breaches, employee error, theft or misuse, malfeasance, power disruptions, natural disasters or accidents could cause a breach of data security, loss of intellectual property and critical data and the release and misappropriation of sensitive competitive information and partner, customer, and employee personal data. Any of these events could harm our competitive position, result in a loss of customer confidence, cause us to incur significant costs to remedy any damages and ultimately materially adversely affect our business and financial condition.

***If we fail to protect, or incur significant costs in defending, our intellectual property and other proprietary rights, our business and results of operations could be materially harmed.***

Our success depends on our ability to protect our intellectual property and other proprietary rights. We rely on a combination of patent, trademark, copyright, trade secret and unfair competition laws, as well as license agreements and other contractual provisions, to establish and protect our intellectual property and other proprietary rights. We have applied for patent registrations in Canada, the U.S. and other countries, some of which have been issued. We cannot guarantee that our pending applications will be approved by the applicable governmental authorities. Moreover, our existing and future patents and trademarks may not be sufficiently broad to protect our proprietary rights or may be held invalid or unenforceable in court. A failure to obtain patents or trademark registrations or a successful challenge to our registrations in Canada, the U.S. or other countries may limit our ability to protect the intellectual property rights that these applications and registrations intended to cover.

Policing unauthorized use of our technology is difficult and we cannot be certain that the steps we have taken will prevent the misappropriation, unauthorized use or other infringement of our intellectual property rights. Further, we may not be able to effectively protect our intellectual property rights from misappropriation or other infringement in foreign countries where we have not applied for patent protections, and where effective patent, trademark, trade secret and other intellectual property laws may be unavailable, or may not protect our proprietary rights as fully as Canadian or U.S. law. We may seek to secure comparable intellectual property protections in other countries. However, the level of protection afforded by patent and other laws in other countries may not be comparable to that afforded in Canada and the U.S.

We also attempt to protect our intellectual property, including our trade secrets and know-how, through the use of trade secret and other intellectual property laws, and contractual provisions. We enter into confidentiality and invention assignment agreements with our employees and independent consultants. We also use non-disclosure agreements with other third parties who may have access to our proprietary technologies and information. Such measures, however, provide only limited protection, and there can be no assurance that our confidentiality and non-disclosure agreements will not be breached, especially after our employees end their employment, and that our trade secrets will not otherwise become known by competitors or that we will have adequate remedies in the event of unauthorized use or disclosure of proprietary information. Unauthorized third parties may try to copy or reverse engineer our products or portions of our products, otherwise obtain and use our intellectual property, or may independently develop similar or equivalent trade secrets or know-how. If we fail to protect our intellectual property and other proprietary rights, or if such intellectual property and proprietary rights are infringed or misappropriated, our business, results of operations or financial condition could be materially harmed.

In the future, we may need to take legal actions to prevent third parties from infringing upon or misappropriating our intellectual property or from otherwise gaining access to our technology. Protecting and enforcing our intellectual property rights and determining their validity and scope could result in significant litigation costs and require significant time and attention from our technical and management personnel, which could significantly harm our business. We may not prevail in such proceedings, and an adverse outcome may adversely impact our competitive advantage or otherwise harm our financial condition and our business.

***We may be involved in intellectual property disputes in the future, which could divert management's attention, cause us to incur significant costs and prevent us from selling or using the challenged technology.***

Participants in the markets in which we sell our products have experienced frequent litigation regarding patent and other intellectual property rights. There can be no assurance that third parties will not assert infringement claims against us and we cannot be certain that our products would not be found infringing on the intellectual property rights of others. Regardless of their merit, responding to such claims can be time consuming, divert management's attention and resources and may cause us to incur significant expenses. Intellectual property claims against us could result in a requirement to license technology from others, discontinue manufacturing or selling the infringing products, or pay substantial monetary damages, each of which could result in a substantial reduction in our revenue and could result in losses over an extended period of time.

***If we fail to obtain the right to use the intellectual property rights of others that are necessary to operate our business, and to protect their intellectual property, our business and results of operations will be adversely affected.***

From time to time we may choose to or be required to license technology or intellectual property from third parties in connection with the development of our products. We cannot assure you that third party licenses will be available to us on commercially reasonable terms, if at all. Generally, a license, if granted, would include payments of up-front fees, ongoing royalties or both. These payments or other terms could have a significant adverse impact on our results of operations. Our inability to obtain a necessary third-party license required for our product offerings or to develop new products and product enhancements could require us to substitute technology of lower quality or performance standards, or of greater cost, either of which could adversely affect our business. If we are not able to obtain licenses from third parties, if necessary, then we may also be subject to litigation to defend against infringement claims from these third parties. Our competitors may be able to obtain licenses or cross-license their technology on better terms than we can, which could put us at a competitive disadvantage.

***If we fail to maintain effective internal control over financial reporting in the future, the accuracy and timing of our financial reporting may be adversely affected.***

Preparing our consolidated financial statements involves a number of complex manual and automated processes, which are dependent upon individual data input or review and require significant management judgment. One or more of these elements may result in errors that may not be detected and could result in a material misstatement of our consolidated financial statements. The Sarbanes-Oxley Act in the U.S. requires, among other things, that as a publicly traded company we disclose whether our internal control over financial reporting and disclosure controls and procedures are effective. As long as we qualify as an "emerging growth company" under the JOBS Act, we will not have to provide an auditor's attestation report on our internal controls. During the course of any evaluation, documentation or attestation, we or our independent registered public accounting firm may identify weaknesses and deficiencies that we may not otherwise identify in a timely manner or at all as a result of the deferred implementation of this additional level of review.

Our internal controls cannot guarantee that no accounting errors exist or that all accounting errors, no matter how immaterial, will be detected because a control system, no matter how well designed and operated, can provide only reasonable, but not absolute assurance that the control system's objectives will be met. If we are unable to implement and maintain effective internal control over financial reporting, our ability to accurately and timely report our financial results could be adversely impacted. This could result in late filings of our annual and quarterly reports under the Canadian Securities Act and the Securities Exchange Act of 1934, or the Exchange Act, restatements of our consolidated financial statements, a decline in our stock price, suspension or delisting of our common stock by the TSX Venture Exchange, or other material adverse effects on our business, reputation, results of operations or financial condition.

***Our ability to use our net operating losses and certain other tax attributes may be limited.***

As of December 31, 2019, we had accumulated net operating losses (NOLs), of approximately \$92 million. Varying jurisdictional tax codes have restrictions on the use of NOLs, if a corporation undergoes an "ownership change," the corporation's ability to use its pre-change NOLs, R&D credits and other pre-change tax attributes to offset its post-change income may be limited. An ownership change is generally defined as a greater than 50% change in equity ownership. Based upon an analysis of our equity ownership, we do not believe that we have experienced such ownership changes and therefore the annual utilization of our NOLs may not be subject to such limitation at this time. However, should we experience additional ownership changes, our NOL carry forwards may be limited.

***We are subject to governmental export and import controls that could subject us to liability or impair our ability to compete in international markets.***

We are subject to export and import control laws, trade regulations and other trade requirements that limit which raw materials and technology we can import or export and which products we sell and where and to whom we sell our products. Specifically, the Bureau of Industry and Security of the U.S. Department of Commerce is responsible for regulating the export of most commercial items that are so called dual-use goods that may have both commercial and military applications. A limited number of our products are exported by license under certain classifications. Export Control Classification requirements are dependent upon an item's technical characteristics, the destination, the end-use, and the end-user, and other activities of the end-user. Should the regulations applicable to our products change, or the restrictions applicable to countries to which we ship our products change, then the export of our products to such countries could be restricted. As a result, our ability to export or sell our products to certain countries could be restricted, which could adversely affect our business, financial condition and results of operations. Changes in our products or any change in export or import regulations or related legislation, shift in approach to the enforcement or scope of existing regulations, or change in the countries, persons or technologies targeted by such regulations, could result in delayed or decreased sales of our products to existing or potential customers. In such event, our business and results of operations could be adversely affected.

***We are exposed to risks and increased expenses and business risk as a result of Restriction on Hazardous Substances, or RoHS directives.***

Following the lead of the European Union ("EU"), various governmental agencies have either already put into place or are planning to introduce regulations that regulate the permissible levels of hazardous substances in products sold in various regions of the world. For example, the RoHS directive for EU took effect on July 1, 2006. The labeling provisions of similar legislation in China went into effect on March 1, 2007. Consequently, many suppliers of products sold into the EU have required their suppliers to be compliant with the new directive. We anticipate that our customers may adopt this approach and will require our full compliance, which will require a significant amount of resources and effort in planning and executing our RoHS program, it is possible that some of our products might be incompatible with such regulations. In such events, we could experience the following consequences: loss of revenue, damages reputation, diversion of resources, monetary penalties, and legal action.

***Failure to comply with the U.S. Foreign Corrupt Practices Act could subject us to penalties and other adverse consequences.***

We are subject to the U.S. Foreign Corrupt Practices Act, which generally prohibits companies operating in the U.S. from engaging in bribery or other prohibited payments to foreign officials for the purpose of obtaining or retaining business. In addition, we are required to maintain records that accurately and fairly represent our transactions and have an adequate system of internal accounting controls. Non-U.S. companies, including some that may compete with us, may not be subject to these prohibitions, and therefore may have a competitive advantage over us. If we are not successful in implementing and maintaining adequate preventative measures, we may be responsible for acts of our employees or other agents engaging in such conduct. We could suffer severe penalties and other consequences that may have a material adverse effect on our financial condition and results of operations.

***Natural disasters or other catastrophic events could harm our operations.***

Our operations in the U.S., Canada and Singapore could be subject to significant risk of natural disasters, including earthquakes, hurricanes, typhoons, flooding and tornadoes, as well as other catastrophic events, such as epidemics, terrorist attacks or wars. For example, our wafer fabrication facility in Singapore is in an area that is susceptible to hurricanes. Any disruption in our manufacturing facilities arising from these and other natural disasters or other catastrophic events could cause significant delays in the production or shipment of our products until we are able to arrange for third parties to manufacture our products. We may not be able to obtain alternate capacity on favorable terms or at all. Our property insurance coverage with respect to natural disaster is limited and is subject to deductible and coverage limits. Such coverage may not be adequate or continue to be available at commercially reasonable rates and terms. The occurrence of any of these circumstances may adversely affect our financial condition and results of operation.

***We have closed the sale of our DenseLight subsidiary and received \$21 million of the \$26 million due on the sale. The remaining tranche of \$5 million is scheduled to be paid on or before May 31, 2020. If for any reason the holders or our convertible debentures decide to redeem rather than convert their debentures at the time we receive the final payment and provide notice to holders that they are entitled to redeem, we could experience a significant outflow of cash that could interrupt our operating plans, delay new product introduction and cause significant harm to the Company.***

We have planned our operation based on receiving the full consideration for the sale of DenseLight, we have decided not to declare the sale “completed” until we receive the final payment. Given the environment that COVID-19 has produced and the likely losses that have been incurred by the holders of our convertible debentures in other investments, we are concerned that once those holders are entitled to redeem that substantial numbers of them may do so, resulting in a significant outflow of cash during a critical period of time for the Company. While we intend to contact all the convertible debentures holders to explain the burden that redemptions would place on the Company, we cannot guarantee that our appeals for restraint in redemptions would be successful.

The outstanding amount owed in connection with the convertible debentures is \$3,429,105. If we do not receive the final payment from the Buyer, and if all or a majority of the purchasers of the convertible debentures request redemption, the Company may have to divert its limited cash to these repayments rather than into its operations

***The coronavirus outbreak could adversely affect our results of operations.***

The global outbreak of COVID-19 has resulted in Canada, the United States, Singapore and other countries halting or sharply curtailing the movement of people, goods and services. The curtailed activity has negatively affected many businesses, including businesses that operate in our sector. The prolonged economic impact of COVID-19 remains uncertain. At this point, we believe the conditions may have a material adverse impact on our business. Given the rapidly changing developments we cannot accurately predict what effects these conditions will have on our business, which will depend on, among other factors, the ultimate geographic spread of the virus, the duration of the outbreak, travel restrictions and business closures imposed globally by various governments.

Risks Related to Our Common Stock

*Our stock price has been and may continue to be volatile.*

The trading price for our common stock on the TSX Venture Exchange (“TSXV”) has been and is likely to continue to be highly volatile. Although we have registered our stock with the SEC, the U.S. market for our shares has been slow to develop, and if and as such a market develops, prices on that market are also likely to be highly volatile. The market prices for securities of early stage technology companies have historically been highly volatile.

Factors that could adversely affect our stock price include:

- fluctuations in our operating results and our financial condition;
- announcements of new products, partnerships or technological collaborations and announcements of the results or further actions in respect of any products, partnerships or collaborations, including termination of same;
- innovations by us or our competitors;
- governmental regulation;
- developments in patent or other proprietary rights;
- the results of technology and product development testing by us, our partners or our competitors;
- litigation;
- general stock market and economic conditions;
- number of shares available for trading (float); and
- inclusion in or dropping from stock indexes.

As of April 22, 2020, our 52-week high and low closing market prices for our common stock on the TSXV were CA\$0.56 and CA\$0.23.

*We have historically obtained, and expect to continue to obtain, additional financing primarily by way of sales of equity, which may result in significant dilution to existing shareholders.*

We have not earned profits, so the Company's ability to finance operations is chiefly dependent on equity financings. Since 2012 we raised approximately US\$60.6 million (net of share issue costs) in equity public offerings, financing through private placements or the exercise of stock options and warrants in support of the Company's business, which has resulted in significant dilution to existing shareholders. Further equity financings will also result in dilution to existing shareholders, and such dilution could be significant.

*Future sales of common stock or warrants, or the prospect of future sales, may depress our stock price. The exercise of share purchase options and warrants will create dilution which could adversely affect the Company's shareholders.*

Sales of a substantial number of shares of common stock or warrants, or the perception that sales could occur, could adversely affect the market price of our common stock. Additionally, as of April 22, 2020, there were outstanding options to purchase up to 29,539,155 shares of our common stock that are currently exercisable and additional outstanding options to purchase up to 25,047,296 shares of common stock that are exercisable over the next several years. As of April 22, 2020, there were outstanding warrants to purchase 45,729,850 shares of our stock. The holders of these options and warrants have an opportunity to profit from a rise in the market price of our common stock with a resulting dilution in the interests of the other shareholders. The existence of these options and warrants may adversely affect the terms on which we may be able to obtain additional financing. The weighted average exercise price of issued and outstanding options is CAD\$0.65, the weighted average exercise price of warrants is CAD\$0.57, which compares to the CAD\$0.52 market price at closing on April 22, 2020. If all of these securities were exercised, an additional 99,331,301 common shares would become issued and outstanding. This represents an increase of 34.2% in the number of shares issued and outstanding and would result in significant dilution to current shareholders.

*The risks associated with penny stock classification could affect the marketability of the Company's common shares and shareholders could find it difficult to sell their shares.*

The Company's common shares are subject to "penny stock" rules as defined in Exchange Act Rule 3a51-1. The SEC adopted rules that regulate broker-dealer practices in connection with transactions in penny stocks. Transaction costs associated with purchases and sales of penny stocks are likely to be higher than those for other securities. Penny stocks generally are equity securities with a price of less than \$5.00 (other than securities listed on certain U.S. national securities exchanges, provided that current price and volume information with respect to transactions in such securities is provided by the exchange).

The penny stock rules require a broker-dealer, prior to a transaction in a penny stock not otherwise exempt from the rules, to deliver a standardized risk disclosure document that provides information about penny stocks and the nature and level of risks in the penny stock market. The broker-dealer also must provide the customer with current bid and offer quotations for the penny stock, the compensation of the broker-dealer and its salesperson in the transaction, and monthly account statements showing the market value of each penny stock held in the customer's account. The bid and offer quotations, and the broker-dealer and salesperson compensation information, must be given to the customer orally or in writing prior to effecting the transaction and must be given to the customer in writing before or with the customer's confirmation.

In addition, the penny stock rules require that prior to a transaction in a penny stock not otherwise exempt from such rules, the broker-dealer must make a special written determination that the penny stock is a suitable investment for the purchaser and receive the purchaser's written agreement to the transaction. These disclosure requirements may have the effect of reducing the level of trading activity in the secondary market for the Company's common shares in the United States and shareholders may find it more difficult to sell their shares.



*The rights of our shareholders may differ from the rights typically afforded to shareholders of a U.S. corporation.*

We are incorporated under the Business Corporations Act (Ontario) (the "OBCA"). The rights of holders of our common shares are governed by the laws of the Province of Ontario, including the OBCA, by the applicable laws of Canada, and by our Articles of Continuance and all amendments thereto (collectively, the "Articles"), and our by-laws (the "By-laws"). These rights differ in certain respects from the rights of shareholders in typical U.S. corporations. The principal differences include without limitation the following:

Under the OBCA, we have a lien on any common share registered in the name of a shareholder or the shareholder's legal representative for any debt owed by the shareholder to us. Under U.S. state law, corporations generally are not entitled to any such statutory liens in respect of debts owed by shareholders.

With regard to certain matters, we must obtain approval of our shareholders by way of at least 66 2/3% of the votes cast at a meeting of shareholders duly called for such purpose being cast in favor of the proposed matter. Such matters include without limitation: (a) the sale, lease or exchange of all or substantially all of our assets out of the ordinary course of our business; and (b) any amendments to our Articles including, but not limited to, amendments affecting our capital structure such as the creation of new classes of shares, changing any rights, privileges, restrictions or conditions in respect of our shares, or changing the number of issued or authorized shares, as well as amendments changing the minimum or maximum number of directors set forth in the Articles. Under U.S. state law, the sale, lease, exchange or other disposition of all or substantially all of the assets of a corporation generally requires approval by a majority of the outstanding shares, although in some cases approval by a higher percentage of the outstanding shares may be required. In addition, under U.S. state law the vote of a majority of the shares is generally sufficient to amend a company's certificate of incorporation, including amendments affecting capital structure or the number of directors.

Pursuant to our By-laws, two persons present in person or represented by proxy and each entitled to vote thereat shall constitute a quorum for the transaction of business at any meeting of shareholders. Under U.S. state law, a quorum generally requires the presence in person or by proxy of a specified percentage of the shares entitled to vote at a meeting, and such percentage is generally not less than one-third of the number of shares entitled to vote.

Under rules of the Ontario Securities Commission, a meeting of shareholders must be called for consideration and approval of certain transactions between a corporation and any "related party" (as defined in such rules). A "related party" is defined to include, among other parties, directors and senior officers of a corporation, holders of more than 10% of the voting securities of a corporation, persons owning a block of securities that is otherwise sufficient to affect materially the control of the corporation, and other persons that manage or direct, to a substantial degree, the affairs or operations of the corporation. At such shareholders' meeting, votes cast by any related party who holds common shares and has an interest in the transaction may not be counted for the purposes of determining whether the minimum number of required votes have been cast in favor of the transaction. Under U.S. state law, a transaction between a corporation and one or more of its officers or directors can generally be approved either by the shareholders or a by majority of the directors who do not have an interest in the transaction.

Neither Canadian law nor our Articles or By-laws limit the right of a non-resident to hold or vote common shares of the Company, other than as provided in the Investment Canada Act (the "Investment Act"), as amended by the World Trade Organization Agreement Implementation Act (the "WTOA Act"). The Investment Act generally prohibits implementation of a direct reviewable investment by an individual, government or agency thereof, corporation, partnership, trust or joint venture that is not a "Canadian," as defined in the Investment Act (a "non-Canadian"), unless, after review, the minister responsible for the Investment Act is satisfied that the investment is likely to be of net benefit to Canada. An investment in the common shares of the Company by a non-Canadian (other than a "WTO Investor," as defined below) would be reviewable under the Investment Act if it were an investment to acquire direct control of the Company, and the value of the assets of the Company were CA\$5.0 million or more (provided that immediately prior to the implementation of the investment the Company was not controlled by WTO Investors). An investment in common shares of the Company by a WTO Investor (or by a non-Canadian other than a WTO Investor if, immediately prior to the implementation of the investment the Company was controlled by WTO Investors) would be reviewable under the Investment Act if it were an investment to acquire direct control of the Company and the value of the assets of the Company equaled or exceeded certain threshold amounts determined on an annual basis. The threshold for a pre-closing net benefit review depends on whether the purchaser is: (a) controlled by a person or entity from a member of the WTO; (b) a state-owned enterprise (SOE); or (c) from a country considered a "Trade Agreement Investor" under the Investment Act. A different threshold also applies if the Canadian business carries on a cultural business. The 2020 threshold for WTO investors that are SOEs will be \$428 million based on the book value of the Canadian business' assets, up from \$416 million in 2019. The 2020 thresholds for review for direct acquisitions of control of Canadian businesses by private sector investor WTO investors (\$1 billion) and private sector trade-agreement investors (\$1.5 billion) remain the same and are both based on the "enterprise value" of the Canadian business being acquired.

A non-Canadian, whether a WTO Investor or otherwise, would be deemed to acquire control of the Company for purposes of the Investment Act if he or she acquired a majority of the common shares of the Company. The acquisition of less than a majority, but at least one-third of the shares, would be presumed to be an acquisition of control of the Company, unless it could be established that the Company is not controlled in fact by the acquirer through the ownership of the shares. In general, an individual is a WTO Investor if he or she is a “national” of a country (other than Canada) that is a member of the WTO (“WTO Member”) or has a right of permanent residence in a WTO Member. A corporation or other entity will be a “WTO Investor” if it is a “WTO Investor-controlled entity,” pursuant to detailed rules set out in the Investment Act. The U.S. is a WTO Member. Certain transactions involving our common shares would be exempt from the Investment Act, including:

- an acquisition of our common shares if the acquisition were made in connection with the person’s business as a trader or dealer in securities;
- an acquisition of control of the Company in connection with the realization of a security interest granted for a loan or other financial assistance and not for any purpose related to the provisions of the Investment Act; and
- an acquisition of control of the Company by reason of an amalgamation, merger, consolidation or corporate reorganization, following which the ultimate direct or indirect control of the Company, through the ownership of voting interests, remains unchanged. Under U.S. law, except in limited circumstances, restrictions generally are not imposed on the ability of non-residents to hold a controlling interest in a U.S. corporation.

***As a “foreign private issuer”, the Company is exempt from certain sections of the Exchange Act which results in shareholders having less complete and timely data than if the Company were a domestic U.S. issuer.***

As a “foreign private issuer,” as defined under the U.S. securities laws, we are exempt from certain sections of the Exchange Act. In particular, we are exempt from Section 14 proxy rules that are applicable to domestic U.S. issuers. The submission of proxy and annual meeting of shareholder information (prepared to Canadian standards) on Form 6-K has typically been more limited than the submissions required of U.S. issuers and results in shareholders having less complete and timely data, including, among others, with respect to disclosure of: (i) personal and corporate relationships and age of directors and officers; (ii) material legal proceedings involving the Company, affiliates of the Company, and directors, officers promoters and control persons; (iii) the identity of principal shareholders and certain significant employees; (iv) related party transactions; (v) audit fees and change of auditors; (vi) voting policies and procedures; (vii) executive compensation; and (viii) composition of the Compensation Committee. In addition, due to the Company’s status as a foreign private issuer, the officers, directors and principal shareholders of the Company are exempt from the short-swing insider disclosure and profit recovery provisions of Section 16 of the Exchange Act. The foregoing exemption results in shareholders having less data in this regard than is available with respect to U.S. issuers.

***If the Company is characterized as a passive foreign investment company, our U.S. shareholders may suffer adverse tax consequences.***

As more fully described below in ITEM 10.E. “Taxation” — United States Federal Income Tax Considerations — Passive Foreign Investment Company Status”, if for any taxable year our passive income, or the value of our assets that produce (or are held for the production of) passive income, exceed specified levels, we may be characterized as a passive foreign investment company (“PFIC”) for U.S. federal income tax purposes. This characterization could result in adverse U.S. tax consequences to our U.S. shareholders, including gain on the disposition of our common shares being treated as ordinary income and any resulting U.S. federal income tax being increased by an interest charge. Rules similar to those applicable to dispositions generally will apply to certain “excess distributions” in respect of our common shares.

***The actual allocation of proceeds from any financing undertaken may differ from the Company’s initial or current intentions.***

The Company has discretion in the use of the net proceeds from any offering of equity securities. The Company may elect to allocate proceeds differently from its initial or current intentions. The failure by the Company’s management to apply these funds effectively could have a material adverse effect on its business.

#### ***Warrants included with financings***

Warrants offered with financings are not listed on any exchange. Investors may be unable to sell the warrants at the prices desired or at all. There is no existing trading market for the warrants and there can be no assurance that a liquid market will develop or be maintained for the warrants, or that an investor will be able to sell any of the warrants at a particular time (if at all). The liquidity of the trading market in the warrants, and the market price quoted for the warrants, may be adversely affected by, among other things:

- changes in the overall market for the warrants;
- changes in the Corporation's financial performance or prospects;
- changes or perceived changes in the Corporation's creditworthiness;
- the prospects for companies in the industry generally;
- the number of holders of the warrants;
- the interest of securities dealers in making a market for the warrants; and
- prevailing interest rates.

#### **ITEM 4. INFORMATION ON THE COMPANY**

##### **A. History and Development of the Company**

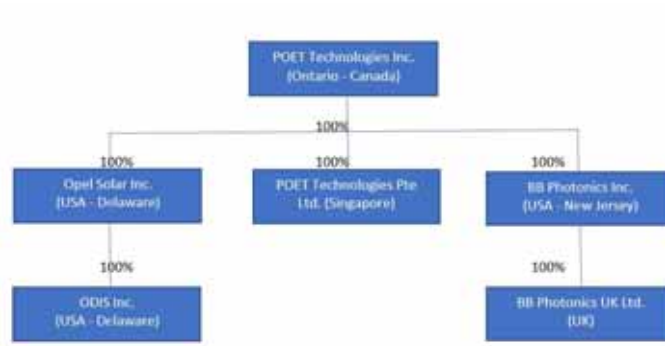
The legal and commercial name of the Company is POET Technologies Inc. The Company was originally incorporated under the British Columbia Company Act on February 9, 1972 as Tandem Resources Ltd. On November 14, 1985, Tandem Resources Ltd. amalgamated with Stanmar Resources Ltd. and Keezic Resources Ltd., to continue as one company under the name Tandem Resources Ltd. under the British Columbia Company Act. By Articles of Continuance dated January 3, 1997, Tandem Resources Ltd. was continued under the OBCA. By Articles of Amendment dated September 26, 2006, Tandem Resources Ltd. changed its name to OPEL International Inc. By Certificate of Continuance dated January 30, 2007, OPEL International Inc. was continued under the New Brunswick Business Corporations Act. By Articles of Continuance dated November 30, 2010, OPEL International Inc. was continued under the OBCA and changed its name to OPEL Solar International Inc. By Articles of Amendment dated August 25, 2011, OPEL Solar International Inc. changed its name to OPEL Technologies Inc. By Articles of Amendment dated July 23, 2013, OPEL Technologies Inc. changed its name to POET Technologies Inc.

On May 11, 2016, in an all-stock transaction, the Company acquired all the issued and outstanding shares of DenseLight Semiconductor Pte. Ltd., a privately held Singapore company that provides optical solutions. DenseLight designs, manufactures and sells optical light source products. DenseLight was acquired for \$10,500,000 of the Company's stock. The Company issued 13,611,150 common shares to the former shareholders of DenseLight.

On November 8, 2019, the Company sold 100% of the issued and outstanding shares of DenseLight for \$26,000,000. The Company recognized a gain on the sale of \$8,707,280.

On June 22, 2016, in an all-stock transaction, the Company acquired all the issued and outstanding shares of BB Photonics Inc., a privately held US Company with a wholly owned subsidiary, BB Photonics UK Ltd. Both companies design integrated photonics solutions for the data communications market. BB Photonics and its subsidiary were acquired for consideration of \$1,550,000. The acquisition was settled with the issuance of 1,996,090 common shares of the Company to the former shareholders of BB Photonics.

The following is a graphic description of the Company and its subsidiaries:



OPEL Solar Inc. and ODIS Inc.

**OPEL Solar, Inc. (OPEL)**

OPEL is a wholly-owned subsidiary of POET Technologies and is the assignee for all patents and patent applications filed by the Company prior to 2019.

**ODIS Inc. (“ODIS”)**

ODIS is a wholly owned subsidiary of OPEL Solar, Inc. and is the developer of the POET platform semiconductor process IP for fabrication of integrated circuit devices containing both electronic and optical elements in a single package ("hybrid integration").

**BB Photonics Inc. and BB Photonics UK Ltd.**

BB Photonics develops photonic integrated components for the datacenter market utilizing embedded waveguide technology that is intended to enable on-chip athermal wavelength control which lowers the total solution cost of datacenter photonic integrated circuits.

**POET Technologies Pte Ltd. (“PTS”)**

PTS is a wholly owned subsidiary of POET Technologies Inc. Situated in Singapore, PTS tests and validates the designs of ODIS

The Company operates geographically in the United States, Canada and Singapore

Capital Expenditures

Our capital expenditures for the last three years, which principally consist of purchases of research and development equipment and instrumentation and patents are as follows:

Period		Capital Expenditure	Purpose
Fiscal 2019 (1)	\$	2,121,987	Instruments, equipment and patents
Fiscal 2018	\$	3,785,760	Instruments, equipment and patents
Fiscal 2017	\$	1,030,340	Instruments, equipment and patents

(1) Prior to the sale of DenseLight, the Company spent \$1,610,503 in capital expenditures at DenseLight and \$511,484 on capital expenditures at POET. The capital items acquired at DenseLight were sold as part of the sale.

The Company's registered office is located at Suite 1107, 120 Eglinton Avenue East, Toronto, Ontario, Canada M4P 1E2 and its phone number is (416) 368-9411. The Company has operations at Suite 308, 1605 N. Cedar Crest Boulevard, Allentown, PA, 18104 and 21 Changi North Way, #04-06, Singapore, 498774.

**B. Business Overview**

Corporate Overview

**Overview**

We design, develop, manufacture and sell both discrete and integrated opto-electronic solutions for data communications and telecommunications markets. POET has developed and is marketing its proprietary POET Optical Interposer™ platform. The POET Optical Interposer utilizes a novel waveguide technology that allows the integration of electronic and photonic devices into a single multi-chip module. The integration of devices into a single package is achieved by applying advanced wafer-level semiconductor manufacturing techniques and novel packaging methods developed by POET. POET's Optical Interposer eliminates costly components, assembly and testing methods employed in conventional photonics solutions. In addition to lowering costs compared to conventional devices, POET's Optical Interposer provides a flexible and scalable platform for a variety of photonics applications ranging from data centers to consumer products.

POET's Optical Interposer is a platform technology upon which multiple applications can be based, including transceivers for data- and tele-communications, integrated photonics on electronic switching devices, low-cost components for the networking and cellular markets, automotive LIDAR and a plethora of sensing and other applications using light as a medium for data transmission. In each case, devices traditionally associated with photonics, such as laser diodes, light emitting diodes, detectors, amplifiers and the associated waveguides and other passive devices are designed specifically in the context of the Optical Interposer to meet the needs and functions of specific applications.

POET has targeted as the first application of the Optical Interposer the development of Optical Engines for transceivers used in data centers. Transceivers are used to convert digital electronic signals into light signals and to transmit and receive those light signals via fiber optic cables within datacenters and between datacenters and metropolitan centers in a vast data and tele-communications network. In 2019 we delivered prototypes of certain components designed for our Optical Engines and we expect to continue to do so throughout 2020. These prototypes address the emerging high-growth segment of the current market for Optical Engines. Continued development of our Optical Engine prototypes is intended to add several commonly used communication protocols and data speeds to increase the functionality of our Optical Engines and to address broader markets.

Virtually all of POET's R&D expenditures in recent years have been in some way connected to the Optical Interposer. We expect to continue to spend the majority of our R&D resources for the foreseeable future on Optical Interposer-based components across a variety of potential applications. DenseLight has also incurred R&D expenditures for conventional non-interposer-based products, primarily in the area of photonic sensing that represent the majority of the Company's current product sales.

As a platform technology, Optical Interposer development does not have a specific end point. Each application of the Optical Interposer requires development specific to the application. POET's product roadmap is currently focused on the development of Optical Engines for optical transceivers. Optical Engines include all of the photonics-related components of a transceiver but do not include several of the electronic devices needed for a functioning transceiver module. Nor does it include the external packaging and optical fibers. Nevertheless, Optical Engines represent the majority of the cost and value of most optical transceivers.

The "active" components that are included in a POET Optical Engine include lasers, detectors and modulators fabricated on InP or Silicon substrate and specifically designed to be integrated into the Optical Interposer fabric. We have supplemented our active component device development with co-development partners and license agreements, including for certain types of lasers and modulators. This not only reduces the risk to internal development and accelerates time to market, but it also ensures second sources of Optical Interposer-compatible active components, a critical part of our strategy going forward.

In parallel to these activities, POET also directed development programs in two other areas for the Optical Interposer platform outside of DenseLight, including Passive Component design and development and Core Integration process development. Passive devices include filters, mux-demux devices, waveguides and spot size converters, all designed and fabricated using POET's proprietary materials and processes. The Optical Interposer devices are fabricated at a third-party foundry. We transferred the basic processes for producing our Optical Interposers to our foundry partner in 2018 and since then we have continued to improve those processes in order to make them suitable for high volume manufacturing.

Core Integration Process Development relates primarily to advanced packaging methods that, combined with the unique design of the Optical Interposer, allows true wafer-scale assembly and test. We do not believe that such true wafer-scale integration has yet been demonstrated by any other approach in the photonics industry. We are able to achieve chip-level integration and wafer-scale assembly, test and packaging because all of the active devices are designed to be placed and "matched" to passive device interfaces on the foundational Optical Interposer wafer using pick-and-place assembly techniques. We eliminate the high cost and cumbersome process of testing each component following placement. Once placed and tested at wafer scale, each Optical Interposer device is sealed, the wafer is separated into hundreds of individual die, and the final Optical Engine is ready for shipment to the customer. Each of these process steps, from flip-chipping of devices onto the Optical Interposer, pick and place assembly, hermetic sealing and singulation required substantial innovation and development, including several techniques that are unique in the photonics and compound semiconductor industries.

We are working with leading industry partners on optical engines and other components for 400G transceivers, which is the next generation of transceiver modules that are expected to be introduced into data centers in the coming months and years. We believe that the Optical Interposer platform is very relevant to markets beyond data communications, such as telecommunications, Automotive LIDAR, and integration with Application Specific Integrated Circuits (ASICs), including switches and graphics generators.

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"G" is an abbreviation for "Giga bits per second", the rate at which the device transmits or receives data.

## Industry Background

The explosion in data, storage and information distribution is driving extraordinary growth in internet traffic and cloud services. The expected growth in the networking and data communication market is the result of many factors, among them being, the growth of wireless and mobile traffic (which will account for 71% of total Internet Provider (IP) traffic by 2022<sup>1</sup>), social media activity, the progression of video transmission, the emergence of imaging such as virtual/augmented/mixed reality and 3D video, the continued migration to cloud storage, the propagation of sensors feeding the Internet of Things, and the evolution of big data analytics and machine learning/artificial intelligence. These factors will continue to drive a long-term increased demand for more capacity and higher speeds.

Photonics has traditionally been employed to transmit and receive data over long distances because light can carry considerably more content and data at faster speeds than other means of transmission, such as radio waves or copper wires. Optical transmission becomes more energy efficient as compared to electronic alternatives when the transmission length and speed increase. As a natural consequence, optics are systematically replacing copper in many of the data center communication links where speed, bandwidth and energy are at a premium.

Data center operators are increasing the size and scale of their facilities, while simultaneously looking to component suppliers for solutions capable of providing higher data transmission rates. Within data centers, data communications over distances 500 m to 2 km have already been transitioned from inherently lower speed copper cable to optical fibers. Furthermore, short reach communications, either rack-to-rack or within the rack as well as those requiring speeds of up to 100G, are now increasingly being converted from copper to optical cables.

Outside the Data Centers, future 5G build-out of mobile communications will drive speed and capacity requirements closer to the user with significant reduction in latency. Compared to 4G, 5G technology standard offers much faster download and upload speed, minimum delay in data communication and processing, as well as much higher density in device connections. 5G will enable advances in virtual reality, augmented reality, autonomous driving, high-definition video, and the Internet of Things, among other applications. All of these applications require advanced photonics devices to provide higher speeds and more bandwidth.

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<sup>1</sup> Cisco *Visual Networking Index: Forecast and Methodology, 2017-2022, White Paper*, Executive Summary, Feb. 27, 2019

## Photonics Markets

POET's primary intent is to sell its Optical Interposer-based solutions in the Optical Data Communications market.

The Optical Communications Market (which includes optical switching equipment, fiber optic transmission systems, transceivers, etc. for all industries) is forecasted to grow at about 9% CAGR over the period from 2017 to 2023, to US\$24 billion from a current US\$15 billion.<sup>2</sup> System and component growth is driven largely by global Internet Provider (IP) traffic, which is expected to nearly triple from 2017 to 2022, representing a 26% CAGR.<sup>3</sup> Within the overall Data Communications market, photonic transceivers will represent a \$25 billion market opportunity in 2025, according to *Oculi, llc*.<sup>4</sup> The primary segments for photonic transceivers are Ethernet, wide area network (WAN) and dense wavelength division multiplexing (DWDM), all of which are predominantly addressed by InP-based optical technologies. Ethernet transceivers are forecasted to grow to \$7.4 billion by 2025 with 100G driving a majority of the growth. Within Ethernet, single mode transceivers based on InP devices are forecasted to outgrow multimode transceivers based on GaAs devices by a factor of 6:1. Segmented by distance, the majority of growth is expected in the <10km segment (\$4.3 billion by 2025).<sup>5</sup>

Integrated photonic transceivers, incorporating approaches comparable to that of POET, are expected to overtake those using discrete components by 2021, growing from a current \$3.2 billion to \$20 billion in 2025<sup>6</sup>. Within this market, POET is focused on the highest growth segments, including Wavelength Division Multiplexing (WDM) for medium-reach (500m – 2km) Ethernet datacom connections and Wide Area Network protocols for long-reach or metro applications (2km – 10km). The majority of today's discrete transceiver suppliers are shipping 100G transceivers in a 4x25G format, having developed assembly methods for placing multiple laser chips on one substrate and coupling the output into one fiber using micro-optic filters and other elements. POET's approach is to use the Optical Interposer to combine multiple active and passive devices into a single device, or "Optical Engine", which when combined with control electronics and an outer housing, constitutes a pluggable optical transceiver. We plan to sell our optical engines to manufacturers and assemblers of optical transceiver modules. We believe our Optical Engine solution will be cost competitive with conventional modules as well as silicon photonics in the <2km data center market, and it should be scalable to 10km, and support 200G and 400G datacom speeds.

While the growth curve for photonics products has flattened in 2019, especially in 100G datacom applications, we believe that margin pressures on module makers will create large opportunities for a low or lowest cost provider. In addition, in datacom, the overall slowing of growth has the advantage of providing more time for the design and introduction of first generation 400G transceivers, which we have prioritized for our first Optical Interposer prototypes.

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<sup>2</sup> Market Research Future *Optical Communications Market Research Report – Global Forecast to 2023*, January 2019

<sup>3</sup> Cisco VNI, Forecast Overview, Feb. 27, 2019

<sup>4</sup> Oculi, llc, *Estimates for 2025 commissioned by POET Technologies, Inc.*, March 2017

<sup>5</sup> Ibid

<sup>6</sup> Ibid



### Our Products

- POET is currently engaged in the development of 400G Optical Engines and components for 400G transceiver assemblies.

### Competition

The photonics market is intensely competitive and we expect experience intense competition from a number of manufacturers with alternative technologies. Many of our competitors will be larger than we are and have significantly greater financial, marketing and other resources.

In addition, several of our competitors, especially in the datacom markets, have large market capitalizations or cash reserves and are much better positioned to acquire other companies to gain new technologies or products that may displace our products. Data center equipment providers, who we expect to become our customers, and data center service providers, who are supplied by our customers, may decide to manufacture the optical subsystems that we plan to provide. We may also encounter potential customers that, because of existing relationships, are committed to the products offered by these competitors.

We believe the principal competitive factors in our target markets include the following:

- use of internally manufactured components;
- product breadth and functionality;
- timing and pace of new product development;
- breadth of customer base;
- technological expertise;
- reliability of products;
- product pricing; and
- manufacturing efficiency.

We believe that we can compete favorably with respect to the above factors based on processes, the projected performance, anticipated inherent reliability of our products, our technical expertise in photonic engine design and manufacture and cost.

### Intellectual Property

We have 65 issued patents and 11 patent applications pending and three provisionals in process. The patents cover device structures, underlying technology, applications of the technology and fabrication processes. We believe these patents provide a significant barrier to entry against competition, along with trade secrets and know-how. We intend to continue to apply for additional patents in the future. Currently, we are working on the design of integrated devices, manufacturing processes, assembly and packaging processes and products for data communication applications in the data center market.

#### Sale of DenseLight Subsidiary

On February 3, 2019, management committed to a plan to sell its subsidiary, DenseLight. The decision was taken in line with a strategy to focus on the Company's opportunities related to its Optical Interposer. Management determined that the divestiture of DenseLight would immediately reduce the Company's operating losses and cash burn, while allowing the Company to pursue a "fab-light" strategy with a less capital-intensive business model that is focused on growing the Optical Interposer business through targeted investments in the design, development and sale of vertical market solutions. Consequently, all saleable assets and liabilities relating to DenseLight were classified as "Non-current assets held for sale" or "disposal group liabilities". An impairment assessment was done on the assets that are held for sale. It was determined that no assets were impaired either on the date management committed to a plan of sale or on November 8, 2019 when the sale was consummated.

On November 8, 2019, the Company closed on the sale of its wholly owned subsidiary, DenseLight Semiconductors Pte. Ltd., to a consortium of investors organized under DenseLight Semiconductor Technology (Shanghai) Ltd. ("DL Shanghai") for \$26,000,000. POET shareholders approved the sale with 99% of votes submitted at a Special Meeting held on October 24, 2019, ratifying the Share Sale Agreement ("SSA") signed by the Company on August 20, 2019. The buyer assumed control of DenseLight upon closing. The sale proceeds are being paid over multiple tranches. The first tranche payment was received on November 8, 2019 in the amount of US\$8 million. Shares of DenseLight were placed in escrow in the Buyer's name, to be released by the escrow agent to the Buyer upon receipt of the remaining payments. The second tranche payment was made in two installments, with the first paid on February 19, 2020 consisting of US\$4.75 million and the second on March 30, 2020 of US\$8.25 million for a total paid to date of US\$21.0 million. The remaining payment of US\$5 million is expected to be made on or before May 31, 2020. Upon closing, the Company recognized a gain on the sale of \$8,707,280. The Company received an additional \$2,000,000, in excess of the sale proceeds, with the most recently paid two tranches which was immediately paid to Oak Capital on behalf of the Buyer for due diligence, legal and other expenses.

#### Our Strategy

Our vision for the company is to become the global leader in chip-scale photonic solutions by deploying our Optical Interposer technology to enable the seamless integration of electronics and photonics for a broad range of vertical market applications.

Our strategy includes the following key elements:

- *Introduce the Optical Interposer concept to suppliers of transceivers and data center operators and form commercial partnerships for product development.* Because of the magnitude of the cost savings and performance advantages that may be derived from the use of POET's Optical Engines for transceiver applications, we expect to generate significant interest among both the suppliers of transceiver modules and their ultimate customers, the data center operators. In addition, the POET Optical Interposer provides a straightforward and cost-effective path to higher speed transceivers, including up to 400G and higher, providing a single platform that can span several device generations. We anticipate that several companies will be interested in pursuing commercial partnerships with POET in order to qualify and design-in our Optical Engines.

- *Promote the POET Optical Interposer as a true platform technology across several photonic applications and markets.* The POET Optical Interposer is designed to be a flexible platform for the combination or integration of various photonic and electronic components. The anticipated low cost makes it suitable for applications like automotive LIDAR. The compatibility of the Optical Interposer manufacturing process with standard silicon CMOS processing opens up a wide variety of other applications where high-speed data communications is needed, such as integration with ASICs, graphics generators and high-speed switches.

· *Pursue multiple potential sources of non-product revenue and strategic partnerships.* In addition to product sales, we have been pursuing Non-Recurring Engineering (“NRE”) revenues from end-use customers and/or from strategic partners. In particular, we believe our 400G transceiver components represent a uniquely attractive opportunity for collaborative development with a strategic partner(s).

· *Pursue a “fab-light” strategy.* “Fab-light” is a common business model in the semiconductor industry. Such a strategy allows the Company to invest more in design and development of Optical Interposer-based solutions, expand its marketing and sales presence globally and spend less on capital equipment and maintenance of facilities, enabling a faster path to profitability.

· *Pursue complementary strategic alliance or acquisition opportunities.* We intend to evaluate and selectively pursue strategic alliances or acquisition opportunities that we believe will accelerate our penetration of specific applications or vertical markets with our technology or products.

#### Geographic Distribution of Revenue

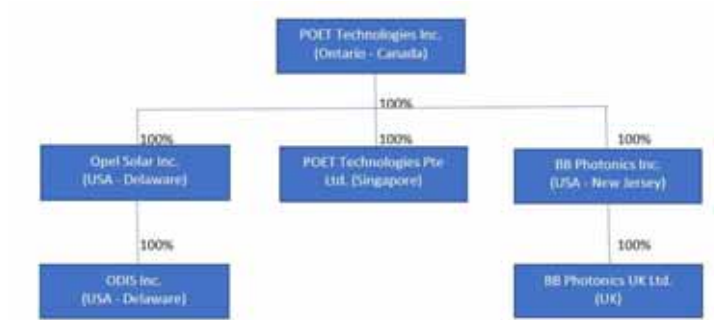
Revenue and geographic markets for 2019, 2018 and 2017 were approximately as follows:

Region	2019	2018	2017
Asia – Pacific	\$ 1,271,000	\$ 1,971,000	1,593,000
Europe	\$ 744,000	\$ 1,191,000	866,000
North & South America	\$ 2,411,000	\$ 726,000	335,000

“Fab-light” does not mean “fab-less”, as significant portions of our Intellectual Property are embedded in the processes that we have developed that are themselves integral to the equipment and functioning of the Optical Interposer. By purchasing our own equipment and placing the equipment in a foundry, for example, we are able to preserve confidentiality and ownership of such critical IP. As a result, even with a “fab-light” strategy, we expect to continue to invest in capital equipment, but not at the same level as owning and supporting an entire InP wafer fabrication facility.

C. Organizational Structure

The following graphically displays the organizational structure of the Company:



- (1) There are 28,374,000 Class A Common Shares of OPEL Solar, Inc. issued and outstanding, all of which are held by the Company. There are no other outstanding securities of OPEL Solar, Inc. other than the Class A Common Shares.
- (2) There are 5 Common Shares of ODIS Inc. issued and outstanding, held by OPEL Solar, Inc.
- (3) There is 1 Ordinary share of POET Technologies Pte Ltd. issued and outstanding, held by POET Technologies Inc.
- (4) There is 1 Ordinary Share of BB Photonics UK Ltd. issued and outstanding, held by BB Photonics Inc.
- (5) There are 1,000,000 Preferred Shares and 1,050,100 Common shares of BB Photonics Inc. issued and outstanding, all of which are held by the Company. There are no other outstanding securities of BB Photonics Inc.

D. Property, Plants and Equipment

The Company's head Canadian office is located in a 400 sq. ft. leased office space in Toronto, Ontario, Canada. The US based operations are in a leased 3,883 sq. ft. space in Allentown, Pennsylvania. Our testing operations are located in a 4,669 sq. ft. leased facility in Singapore.

ITEM 4A. UNRESOLVED STAFF COMMENTS

Not Required.

ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS

The following discussion should be read in conjunction with the audited consolidated financial statements of the Company and the related notes for the years ended December 31, 2019, 2018 and 2017 and the accompanying notes thereto included elsewhere in this Annual Report. This discussion contains forward-looking statements that involve risks and uncertainties. Actual results could differ materially from those anticipated by forward-looking information due to factors discussed under “ITEM 3.D. Risk Factors” and “ITEM 4.B. Business Overview.”

## A. Operating Results

### Critical Accounting Policies and Estimates

The Company prepares its audited consolidated financial statements in accordance with IFRS as issued by the IASB, which differs from U.S. GAAP. The preparation of financial statements in accordance with IFRS requires the use of certain critical accounting assumptions and estimates. These assumptions are limited by the availability of reliable comparable data and the uncertainty of predictions concerning future events. It also requires management to exercise judgment in applying the Company's accounting policies. The Company believes that the estimates and assumptions upon which it relies are reasonable based upon information available at the time that these estimates and assumptions are made. Actual results could differ from these estimates. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the financial statements are disclosed below.

### Basis of presentation

These consolidated financial statements include the accounts of POET Technologies Inc. and its subsidiaries. All intercompany balances and transactions have been eliminated on consolidation.

### Financial Instruments

IFRS 9 introduced new classification and measurement models for financial assets. The investment classifications held-to-maturity and available-for-sale are no longer used and financial assets at fair value through other comprehensive income ("FVTOCI") were introduced. Financial assets held with an objective to hold assets in order to collect contractual cash flows which arise on specified dates that are solely principal and interest are measured at amortized cost using the effective interest method. Debt investments held with an objective to hold both assets in order to collect contractual cash flows which arise on specified dates that are solely principal and interest as well as selling the asset on the basis of fair value are measured at FVTOCI. All other financial assets are classified and measured at fair value through profit or loss ("FVTPL"). Financial liabilities are classified as either FVTPL or other financial liabilities, and the portion of the change in fair value that relates to the Company's credit risk is presented in other comprehensive income (loss). Instruments classified as FVTPL are measured at fair value with unrealized gains and losses recognized in net income (loss). Other financial liabilities are subsequently measured at amortized cost using the effective interest method.

Transaction costs that are directly attributable to the acquisition or issuance of financial assets and financial liabilities, other than financial assets and financial liabilities classified as FVTPL, are added to or deducted from the fair value on initial recognition. Transaction costs directly attributable to the acquisition of financial assets or financial liabilities classified as FVTPL are recognized immediately in consolidated net income (loss).

### Derecognition

#### Financial assets

The Company derecognizes a financial asset when the contractual rights to the cash flows from the financial asset expire, or it transfers the rights to receive the contractual cash flows in a transaction in which substantially all of the risks and rewards of ownership of the financial asset are transferred or in which the Company neither transfers nor retains substantially all of the risks and rewards of ownership and it does not retain control of the financial asset. Any interest in transferred financial assets that is created or retained by the Company is recognized as a separate asset or liability.

#### Financial liabilities

A financial liability is derecognized from the balance sheet when it is extinguished, that is, when the obligation specified in the contract is either discharged, cancelled or expires. Where there has been an exchange between an existing borrower and lender of debt instruments with substantially different terms, or there has been a substantial modification of the terms of an existing financial liability, this transaction is accounted for an extinguishment of the original financial liability and the recognition of a new financial liability. A gain or loss from extinguishment of the original financial liability is recognized in profit or loss.

The Company's financial instruments include cash and cash equivalents, short-term investments, accounts receivable, accounts payable and accrued liabilities.

The following table outlines the classification of financial instruments under IAS 39 and the revised classification on the adoption of IFRS 9:

	Original classification under IAS 39	New classification under IFRS 9
<b>Financial Assets</b>		
Cash and cash equivalents	Loans and receivables	Amortized cost
Short-term investments	FVTPL	Amortized cost
Accounts receivable	Loans and receivables	Amortized cost
<b>Financial Liabilities</b>		
Accounts payable and accrued liabilities	Amortized costs	Amortized cost

Convertible debentures are accounted for as a compound financial instrument with a debt component and a separate equity component. The debt component of these compound financial instruments is measured at fair value on initial recognition by discounting the stream of future interest and principal payments at the rate of interest prevailing at the date of issue for instruments of similar term and risk. The debt component is subsequently deducted from the total carrying value of the compound instrument to derive the equity component. The debt component is subsequently measured at amortized cost using the effective interest rate method. Interest expense based on the coupon rate of the debenture and the accretion of the liability component to the amount that will be payable on redemption are recognized through profit or loss as a finance cost.

#### Cash and cash equivalents

Cash and cash equivalents consist of cash in current accounts of \$1,278,129 and funds invested in US Term Deposits of \$150,000 earning interest at 1.31% and maturing in less than 90 days.

Cash and cash equivalents include restricted funds of \$93,800 which serves as a bank guarantee for the purchase of certain equipment. The bank guarantee is reduced on a monthly basis by \$10,424 which is amount paid monthly in settlement of the outstanding balance on the equipment.

#### Accounts receivable

Accounts receivable are amounts due from customers from the sale of products or services in the ordinary course of business. Accounts receivables are classified as current (on the consolidated statements of financial position) if payment is due within one year of the reporting period date, and are initially recognized at fair value and subsequently measured at amortized cost.

In determining a default provision, the Company utilizes a provision matrix, as permitted under the simplified approach to measure expected credit losses. In doing so management considered historical credit losses, forward-looking factors specific to the Company's debtors and other macro-economic factors to arrive at expected default rates. The default rates are then applied to the Company's aging to determine expected credit losses. The carrying amount of trade receivables is reduced by the expected credit losses. If the financial conditions of these customers were to deteriorate and the Company determines that no recovery of a trade receivable is possible, the amount is deemed irrecoverable and subsequently written-off. Accounts receivable at December 31, 2018 and 2017 related to revenue earned by DenseLight. DenseLight was sold on November 8, 2019.

#### Inventory

Inventory consists of raw material inventory, work in process, and finished goods and are recorded at the lower of cost and net realizable value. Cost is determined on a first in first out basis and includes all costs of purchase, costs of conversion and other costs incurred in bringing the inventory to its present condition.

An assessment is made of the net realizable value of inventory at each reporting period. Net realizable value is the estimated selling price less the estimated cost of completion and the estimated costs necessary to make the sale. When circumstances that previously caused inventories to be written down no longer exist or when there is clear evidence of an increase in net realizable value because of changed economic circumstances, the amount of any write down previously recorded is reversed so that the new carrying amount is the lower of the cost and the revised net realizable value. Raw materials are not written down unless the goods in which they are incorporated are expected to be sold for less than cost, in which case, they are written down by reference to replacement cost of the raw materials, as this is the best indicator of net realizable value. Inventory at December 31, 2018 and 2017 related to inventory held by DenseLight. DenseLight was sold on November 8, 2019.

#### Property and equipment

Property and equipment are recorded at cost. Depreciation is calculated based on the estimated useful life of the asset using the following method and useful lives:

Machinery and equipment	Straight Line, 5 years
Leasehold improvements	Straight Line, 5 years or life of the lease, whichever is less
Office equipment	Straight Line, 5 years



#### Patents and licenses

Patents and licenses are recorded at cost and amortized on a straight-line basis over 12 years. Ongoing maintenance costs are expensed as incurred.

#### Impairment of long-lived assets

The Company's tangible and intangible assets are reviewed for indications of impairment whenever events or changes in circumstances indicate that the carrying amounts of the assets may not be recoverable. An assessment is made at each reporting date whether there is any indication that an asset may be impaired.

An impairment loss is recognized when the carrying amount of an asset exceeds its recoverable amount. Impairment losses are recognized in profit and loss for the year. The recoverable amount is the greater of the asset's fair value less costs to sell and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. For an asset that does not generate largely independent cash inflows, the recoverable amount is determined for the cash-generating unit ("CGU") to which the asset belongs.

An impairment loss is reversed if there is an indication that there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized. The Company reported an impairment loss of \$714,000 for the year ended December 31, 2019.

## Goodwill

Goodwill represents the excess of the cost of an acquired business over the fair value of the identifiable assets acquired net of liabilities assumed. Goodwill is measured at cost less accumulated impairment losses and is not amortized. Goodwill is tested for impairment on an annual basis or whenever facts or circumstances indicate that the carrying amount may exceed its recoverable amount.

The Company performed its annual test for goodwill impairment at December 31, 2019. The Company utilized a five-year cash flow forecast using the annual budget approved by the Board of Directors as a basis for such forecasts. Cash flow forecasts beyond that of the budget were prepared using a stable growth rate for future periods. These forecasts were based on historical data and future trends expected by the Company. The Company's valuation model also takes into account working capital and capital investments required to maintain the condition of the assets. Forecasted cash flows were discounted using an after-tax rate of 30%.

Based on the impairment tests, the value in-use of the CGU to which goodwill is applicable is less than the carrying amount. As a result, goodwill of \$1,050,459 was impaired in the current year. No provision for impairment of goodwill was made in 2018 or 2017.

## Income taxes

The Company follows the liability method of accounting for income taxes. Under this method, deferred income taxes are provided on differences between the financial reporting and income tax bases of assets and liabilities and on income tax losses available to be carried forward to future years for tax purposes. Deferred income taxes are measured using the substantively enacted tax rates and laws that are expected to be in effect when the differences are expected to reverse. Deferred tax assets are only recognized if the amount is expected to be realized in the future.

### Recently Enacted U.S. Federal Tax Legislation

Introduced initially as the Tax Cuts and Jobs Act, the Act to Provide for Reconciliation Pursuant to Titles II and V of the Concurrent Resolution on the Budget for Fiscal Year 2018 (the "Act") was enacted on December 22, 2017. The Act applies to corporations generally beginning with taxable years starting after December 31, 2017 and reduces the corporate tax rate from a graduated set of rates with a maximum 35% tax rate to a flat 21% tax rate. Additionally, the Act introduces other changes that impact corporations, including a net operating loss ("NOL") deduction annual limitation, an interest expense deduction annual limitation, elimination of the alternative minimum tax, and immediate expensing of the full cost of qualified property. The Act also introduces an international tax reform that moves the U.S. toward a territorial system, in which income earned in other countries will generally not be subject to U.S. taxation. However, the accumulated foreign earnings of certain foreign corporations will be subject to a one-time transition tax, which can be elected to be paid over an eight-year tax transition period, using specified percentages, or in one lump sum. NOL and foreign tax credit ("FTC") carryforwards can be used to offset the transition tax liability. As a result of this new regulation, the Company reduced its deferred tax assets by \$9,472,000 in 2017.

## Revenue recognition

Revenue is measured based on the consideration specified in a contract with a customer and excludes amounts collected on behalf of third parties. The Company recognizes revenue when it transfers control over a product or service to a customer.

### Sale of goods

Revenue from the sale of goods is recognized, net of discounts and customer rebates, at the point in time the transfer of control of the related products has taken place as specified in the sales contract and collectability is reasonably assured.

### Service revenue

The Company provides contract services, primarily in the form of non-recurring revenue ("NRE") where control is passed to the customer over time. The contracts generally provide agreed upon milestones for customer payment which include but are not limited to the delivery of sample products, design reports and test reports. The customer makes payment when it has approved the delivery of the milestone. The Company must determine if the contract is made up of a series of independent performance obligations or a single performance obligation. Where NRE contracts contain multiple performance obligations for which a standalone transaction price can be assessed, revenue is recognized as each performance obligation is satisfied. Where NRE contracts contain a single performance obligation to be settled over time, revenue is recognized progressively based on the output method.

#### Interest income

Interest income on cash and cash equivalents classified as fair value through profit or loss is recognized as earned using the effective interest method.

#### Research and Development Credits

Through DenseLight, the Company was eligible to receive cash credits for certain qualifying research and development expenses based on actual spending over a three year period, with an expectation that the credits will not exceed a certain dollar value over a three year period. Recoverable amounts at December 31, 2018 and 2017 related to expenditures at DenseLight. Recoverable amount at December 31, 2019 was nil because the Company sold DenseLight on November 8, 2019.

#### Intangible assets

##### Research and development costs

Research costs are expensed in the year incurred. Development costs are also expensed in the year incurred unless the Company believes a development project meets IFRS criteria as set out in IAS 38, Intangible Assets, for deferral and amortization. IAS 38 requires all research costs be charged to expense while development costs are capitalized only after technical and commercial feasibility of the asset for sale or use have been established. This means that the entity must intend and be able to complete the intangible asset and either use it or sell it and be able to demonstrate how the asset will generate future economic benefits. Development costs are tested for impairment whenever events or changes indicate that its carrying amount may not be recoverable.

##### In-Process Research and Development

Under IFRS, in-process research and development ("IPR&D") acquired in a business combination that meets the definition of an intangible asset is capitalized with amortization commencing when the asset is ready for use (i.e., when development is complete). The Company acquired \$714,000 of IPR&D when it acquired BB Photonics Inc. in 2016. During 2019, management observed indicators that suggested that IPR&D may be impaired. IPR&D acquired with BB Photonics was no longer useable with novel POET Interposer platform. BB Photonics IPR&D would not generate sufficient cash flow to support its value in use. Management completed an assessment of IPR&D and determined that the amount of \$714,000 was impaired. An impairment loss of \$714,000 was recorded during the year ended December 31, 2019. No impairment was recorded in 2018 or 2017.

##### Customer relationships

Intangible assets include customer relationships acquired with the acquisition of DenseLight. Customer relationships is an externally acquired intangible asset and is measured at cost less accumulated amortization and any accumulated impairment losses. Customer relationships are amortized on a straight-line basis over their estimated useful lives and is tested for impairment whenever events or changes indicate that their carrying amount may not be recoverable. The useful life of customer relationships was determined to be 5 years. Customer relations was nil at December 31, 2019 as because the asset was disposed of with the sale of DenseLight on November 8, 2019.

#### Stock-based compensation

Stock options and warrants awarded to non-employees are accounted for using the fair value of the instrument awarded or service provided whichever is considered more reliable. Stock options and warrants awarded to employees are accounted for using the fair value method. The fair value of such stock options and warrants granted is recognized as an expense on a proportionate basis consistent with the vesting features of each tranche of the grant. The fair value is calculated using the Black-Scholes option-pricing model with assumptions applicable at the date of grant.

#### Loss per share

Basic loss per share is calculated by dividing net loss by the weighted average number of common shares outstanding during the year. Diluted loss per share is calculated by dividing net loss by the weighted average number of common shares outstanding during the year after giving effect to potentially dilutive financial instruments. The dilutive effect of stock options and warrants is determined using the treasury stock method.

Recently adopted accounting policy

IFRS 16, Leases ("IFRS 16") sets out the principles for the recognition, measurement, presentation and disclosure of leases for both parties to a contract, the customer (lessee) and the supplier (lessor). This replaces IAS 17, Leases ("IAS 17") and related Interpretations. IFRS 16 provides revised guidance on identifying a lease and for separating lease and non-lease components of a contract. IFRS 16 introduces a single accounting model for all lessees and requires a lessee to recognize right of use assets and lease liabilities for leases with terms of more than 12 months, unless the underlying asset is of low value, and depreciation of lease assets is reported separately from interest on lease liabilities in the income statement. Under IFRS 16, lessor accounting for operating and finance leases will remain substantially unchanged. IFRS 16 is effective for annual periods beginning on or after January 1, 2019, with earlier application permitted for entities that apply IFRS 15, Revenue from Contracts with Customers. The Company adopted this new standard using the modified retrospective method on January 1, 2019. The adoption of IFRS 16, resulted in a right of use asset and liability of \$1,127,534. The carrying value of the right of use asset and lease liability relating to Denselight were disposed of upon the sale of DenseLight on November 8, 2019

Selected Annual Data

The selected financial data of the Company for the years ended December 31, 2019, 2018 and 2017 was derived from the audited annual consolidated financial statements of the Company, which have been audited by Marcum LLP, independent registered public accounting firm, as described in their report which is included in this Annual Report.

The information contained in the selected financial data for the 2019, 2018 and 2017 years is qualified in its entirety by reference to the Company's consolidated financial statements and related notes included under the heading ITEM 17. "Financial Statements" and should be read in conjunction with such financial statements and with the information appearing under the heading ITEM 5 "Operating and Financial Review and Prospects". Except where otherwise indicated, all amounts are presented in accordance with IFRS as issued by IASB.

The following table relates to the operating results of the Company.

Consolidated Statements of Operations Under International Financial Reporting Standards  
(US\$)

Years Ended December 31.

	2019	Restated 2018	Restated 2017
Operating Expenses			
Selling, marketing and administrative	\$ 6,697,387	\$ 6,173,875	\$ 5,887,709
Research and development	2,083,815	2,262,476	2,039,421
Impairment loss	1,764,459	-	-
Interest expense	819,911	-	-
Amortization of debt issuance costs	372,340	-	-
Other income, including interest	(10,540)	(14,234)	(18,279)
Operating Expenses	11,727,372	8,422,117	7,908,851
Income tax recovery	(292,740)	-	-
Net loss from continuing operations	(11,434,632)	(8,422,117)	(7,908,851)
Income (loss) from discontinued operations, net of taxes <sup>(1)</sup>	5,481,757	(7,900,662)	(4,888,946)
Net loss	(5,952,875)	(16,322,779)	(12,797,797)
Deficit, beginning of year	(133,195,932)	(116,873,153)	(104,075,356)
Deficit, end of year	\$ (139,148,807)	\$ (133,195,932)	\$ (116,873,153)
Basic and diluted loss per share, continuing operations	\$ (0.04)	\$ (0.03)	\$ (0.03)
Basic and diluted income (loss) per share, discontinued operations	\$ 0.02	\$ (0.03)	\$ (0.02)
Basic and diluted loss per share	\$ (0.02)	\$ (0.06)	\$ (0.05)

(1) Discontinued operations Under International Financial Reporting Standards

Years Ended December 31,	2019	2018	2017
Revenue	\$ 4,426,355	\$ 3,888,185	\$ 2,794,044
Cost of Revenue	1,201,373	1,475,969	1,342,691
Gross profit	3,224,982	2,412,216	1,451,353
Operating Expenses			
Selling, marketing and administrative	1,950,526	5,515,329	4,983,032
Research and development	5,677,222	6,430,328	3,403,452
Interest expense	74,494	-	-
Impairment loss	-	156,717	-
Other income	(1,251,737)	(1,491,556)	(1,748,245)
Operating Expenses	6,450,505	10,610,818	6,638,239
Net loss from operations	(3,225,523)	(8,198,602)	(5,186,886)
Gain on sale of discontinued operations, net of taxes	8,707,280	-	-
Net income (loss) from discontinued operations	5,481,757	(8,198,602)	(5,186,886)
Income tax recovery	-	297,940	297,940
Income (loss) from discontinued operations, net of income taxes	\$ 5,481,757	\$ (7,900,662)	\$ (4,888,946)

The selected annual information for continuing operations for 2019, 2018 and 2017 can be further analyzed as follows:

Research and development can be analysed as follows:

	For the Years Ended December 31,		
	2019	2018	2017
Wages and benefits	\$ 874,673	\$ 822,258	\$ 703,759
Subcontract fees	834,598	888,566	1,044,936
Stock-based compensation	237,311	395,468	218,896
Supplies	137,233	156,184	71,830
	\$ 2,083,815	\$ 2,262,476	\$ 2,039,421

Selling, marketing and administration costs can be analysed as follows:

Stock-based compensation	\$ 2,650,830	\$ 3,207,411	\$ 2,739,462
Wages and benefits	1,619,719	1,433,286	1,443,656
Professional fees	1,120,805	735,604	597,865
General expenses	813,951	392,901	598,600
Depreciation and amortization	243,674	153,244	182,252
Management and consulting fees	154,357	155,169	229,577
Rent and facility costs	94,051	96,260	96,297
	\$ 6,697,387	\$ 6,173,875	\$ 5,887,709

#### Factors Affecting Our Results of Operations

Due to the sale of DenseLight on November 8, 2019, the Company's operating activities were re-stated to reflect the activities of the continuing operation. A discussion of the

#### Analysis of Continuing Operations

Year Ended December 31, 2019 compared to Year Ended December 31, 2018

In 2019, the Company had a net loss from continuing operations of \$11,727,372. The net loss from continuing operations included \$2,083,815 spent on research and development activities directly related to the development and commercialization of the POET Optical Interposer Platform ("POIP"). Research and development included \$237,311 of non-cash fair value stock-based compensation. \$6,697,387 was spent on selling, marketing and administration expenses which included non-cash operating costs of \$2,650,830 related to the fair value of stock-based compensation and \$243,674 related to depreciation and amortization.

The Company incurred \$819,911 of interest expense and \$372,340 of debt issuance costs related to \$7,729,921 borrowed at various dates and from various lenders during 2019. The Company repaid \$4,000,000 of the borrowed funds on November 8, 2019.

The Company is not exposed to hyperinflationary risks as the Company's investments and operations are occur in geographic regions with stable economies.

## R&D

Total R&D decreased by \$178,661 from \$2,262,476 in 2018 to \$2,083,815 in 2019. For the purposes of the following R&D analysis, non-cash stock-based compensation of \$237,311 (2018 - \$395,468) has been excluded and is included with the analysis of non-cash stock-based compensation below.

R&D, net of stock-based compensation decreased by \$20,504 from \$1,867,008 in 2018 to \$1,846,504 in 2019. The decrease in R&D was the result of a temporary reduction in certain Optical Interposer development programs in favor of component design taking place through the Company's discontinued operations. R&D efforts in 2018 included consulting and outsourced services directed at developing the Company's proprietary waveguides. Variances from year to year reflect individual project emphases between the Company and its discontinued operations rather than any implications for the direction of the overall R&D program. The minor change in R&D year over year reflect the consistency of expenses that were accounted for geographically. Most R&D activity was captured in the Company's discontinued operations.

### Wages and benefits

Wages and benefits increased by \$186,433 (13%) to \$1,619,719 for 2019 from \$1,433,286 in 2018. In late 2019, the Company recruited and hired three senior individuals for roles for which there was a gap. These roles included a President & General Manager of the Company, a Vice President & General Manager for the new Singapore testing facility and a Vice President of Product Marketing & Business Development. Additionally, the Company hired a Senior Vice President of Strategic Marketing in late 2018. The Company reported a full years' wages for the Senior Vice President of Strategic Marketing in 2019 while only a partial years' wages were recorded in 2018.

### Professional fees

Professional fees increased by \$385,201 (52%) to \$1,120,805 in 2019 from \$735,604 in 2018. The increase in professional fees was a result of legal and other professional fees incurred relating to the sale of the Company's DenseLight subsidiary. The services professionals in multiple jurisdictions were required during the due diligence process, drafting the SSA and to assist with negotiations.

### General expenses and rent

General expenses and rent increased by \$418,841 (86%) to \$908,002 in 2019 from \$489,161 in 2018. The increase was primarily a result of ancillary costs incurred related to the various financings that occurred in 2019 and certain indenture fees related to maintaining the warrants of a previous equity financing that occurred in 2018. The Company also incurred substantial travel and related costs due to the time and effort required in negotiating and addressing due diligence matters respecting the sale of DenseLight. Additionally, the Company incurred \$49,274 of unrealized foreign exchange loss due the weakening of the Canadian dollar in 2019. The Company had an unrealized foreign exchange gain of \$142,104 in 2018. The unrealized gains and losses are a result of currency translation for financial reporting purposes.

### Interest expense and debt issuance cost

Interest expense was \$819,911 for 2019 as compared to nil in 2018. The Company raised \$7,729,921 of debt financing from various lenders at varying times throughout 2019, net of directly related issue costs. The Company is required to pay monthly interest on the debt raised during the period. The Company did not have debt obligations in 2018.

Related to the issuance of debt in 2019 is the amortization of debt issuance cost of \$372,340 compared to nil in 2018. The Company paid \$147,077 in costs related to a bridge loan of \$3,100,000 from Espresso Capital Ltd. Additionally, the Company issued 3,289,500 warrants to the lender to purchase common shares at a price of CAD\$0.35 per share. The warrants expire on April 18, 2020. The fair value of the warrants was estimated on the date of issue using the Black-Scholes option pricing model with the following assumptions: volatility of 78.91%, interest rate of 1.62% and an expected life of 1 year. The estimated fair value assigned to the warrants was \$221,620. There was no debt issuance cost in 2018.



#### Non-cash stock-based compensation

Non-cash stock-based compensation decreased by \$714,738 (20%) to \$2,888,141 in 2019 from \$3,602,879 in 2018. The valuation of stock options is driven by a number of factors including the number of options granted, the strike price and the volatility of the Company's stock. The stock option expense is dependent on the timing of the stock option grant and the amortization of the options as they vest. The stock options vest in accordance with the policies determined by the Board of Directors at the time of the grant consistent with the provisions of the Plan.

#### Impairment loss

During 2019, the Company performed an impairment analysis on its goodwill and intangible assets related to the acquisition of BB Photonics in 2016. The Company determined that these assets were impaired and consequently recognized an impairment loss of \$1,764,459. No impairment was recognized in 2018.

#### Exchange Rate Risk

The functional currency of each of the entities included in the accompanying consolidated financial statements is the local currency where the entity is domiciled. Functional currencies include the US, Singapore and Canadian dollar. Most transactions within the entities are conducted in functional currencies. As such, none of the entities included in the consolidated financial statements engage in hedging activities. The Company is exposed to a foreign currency risk with the Canadian and Singapore dollar. A 10% change in the Canadian and Singapore dollar would increase or decrease other comprehensive loss by \$290,950.

#### Liquidity Risk

The Company currently does not maintain credit facilities. The Company's existing cash and cash resources are considered sufficient to fund operating and investing activities beyond one year from the issuance of these consolidated financial statements. The Company may, however, need to seek additional financing in the future.

Year Ended December 31, 2018 compared to Year Ended December 31, 2017

Net loss from continuing operations was \$8,422,117 for 2018 compared to \$7,908,851 for 2017. The following explains the \$513,266 (6%) variance in net loss between 2018 and December 31, 2017.

#### R&D

Total R&D increased by \$223,055 from \$2,039,421 in 2017 to \$2,262,476 in 2018. For the purposes of the following R&D analysis, non-cash stock-based compensation of \$395,468 (2017 - \$218,896) has been excluded and is included with the analysis of non-cash stock-based compensation below.

R&D, net of stock-based compensation had a marginal increase of \$46,483 (3%), increasing from \$1,820,525 in 2017 to \$1,867,008 in 2018. The minor change in R&D from 2017 to 2018 reflects the consistency of expenses that were accounted for geographically. Most R&D activity was captured in the Company's discontinued operations.

#### Professional fees

Professional fees in 2018 increased by \$137,739 (23%) to \$735,604 from \$597,865 in 2017. Professional fees, including legal fees, were required as the Company reviewed internal policies for best practices and initiated co-development partnerships and agreements with several counterparties as disclosed in 2018. The Company also incurred professional fees related to the filing of its final short form prospectus filed in November 2018.

#### General expenses and rent

General expenses and rent in 2018 decreased by \$205,736 (29%) from \$694,897 in 2017 to \$489,161 in 2018. The Company incurred \$6,197 of unrealized foreign exchange loss due the weakening of the Canadian dollar in 2017, conversely, the Company reported a foreign exchange gain of \$142,104 in 2018. The unrealized gains and losses are a result of currency translation for financial reporting purposes.

#### Management and consulting fees

Management and consulting fees decreased by \$74,408 (32%) to \$155,169 in 2018 from \$229,577 in 2017. The decrease was a result of the resignation of the former Executive Chairman of Board in 2017, whose compensation was included in management and consulting fees. Management and consulting fees did not include fees for the newly appointed Executive Chairman in 2018, which were instead charged to wages and benefits.

#### Non-cash stock-based compensation

Non-cash stock-based compensation increased by \$644,521 (22%) to \$3,602,879 in 2018 from \$2,958,358 in 2017. The valuation of stock options is driven by a number of factors including the number of options granted, the strike price and the volatility of the Company's stock. The stock option expense is dependent on the timing of the stock option grant and the amortization of the options as they vest. The stock options vest in accordance with the policies determined by the Board of Directors at the time of the grant consistent with the provisions of the Stock Option Plan, as amended (the "Plan").

#### Exchange Rate Risk

The functional currency of each of the entities included in the accompanying consolidated financial statements is the local currency where the entity is domiciled. Functional currencies include the US, Singapore and Canadian dollar. Most transactions within the entities are conducted in functional currencies. As such, none of the entities included in the consolidated financial statements engage in hedging activities. The Company is exposed to a foreign currency risk with the Canadian and Singapore dollar. A 10% change in the Canadian and Singapore dollar would increase or decrease other comprehensive loss by \$386,391.

#### Liquidity Risk

The Company currently does not maintain credit facilities. The Company's existing cash and cash resources are not considered sufficient to fund operating and investing activities beyond one year from the issuance of these consolidated financial statements. The Company will need to seek additional financing to continue as a going concern.

### Analysis of Discontinued Operations

The selected annual information for discontinued operations for 2019, 2018 and 2017 can be further analyzed as follows:

Research and development can be analysed as follows:

	For the Period from January 1, 2019 to November 8, 2019		For the Years Ended December 31,	
	2019	2018	2018	2017
Wages and benefits	\$ 3,565,076	\$ 3,818,980	\$	2,135,329
Supplies	1,412,572	2,070,495		1,118,011
Subcontract fees	728,457	400,000		-
Stock-based compensation	(28,883)	140,853		150,112
	\$ 5,677,222	\$ 6,430,328	\$	3,403,452

Selling, marketing and administration costs can be analysed as follows:

Wages and benefits	\$ 887,860	\$ 1,034,715	\$	1,131,322
Rent and facility costs	604,442	975,467		1,079,635
General expenses	458,465	785,635		585,637
Stock-based compensation	(46,725)	278,385		66,454
Professional fees	46,484	31,747		27,076
Depreciation and amortization	-	2,409,380		2,092,908
	\$ 1,950,526	\$ 5,515,329	\$	4,983,032

For the Period from January 1, 2019 to November 8, 2019 compared to the Twelve Months Ended December 31, 2018

Effective January 1, 2019, the Company is reporting the activities of DenseLight as a discontinued operation. The activities of DenseLight have been consolidated and reported as discontinued operations from January 1, 2019 to November 8, 2019.

Net income from discontinued operations, net of taxes for 2019 was \$5,481,757 compared to a net loss from discontinued operations net of taxes of \$7,900,662 in 2018. The following discussion analyses the \$13,382,419 variance from 2018 to 2019.

Gain on sale of discontinued operations

The net income in 2019 includes a gain on the sale of discontinued operations of \$8,707,280. On November 8, 2019, the Company sold all the issued and outstanding shares of DenseLight for \$26,000,000. The sale resulted in the reported gain in 2019 of \$8,707,280.

Revenue

Even with a stub period reporting (January 1, 2019 – November 8, 2019), revenue increased by \$538,170 (14%) to \$4,426,355 in 2019 compared to revenue of \$3,888,185 in 2018. The increase resulted primarily from an increase in NRE revenue that DenseLight started to report in late 2018. The increased NRE contributed to higher gross margin in 2019. Gross margin was \$3,224,982 or 73% in 2019 compared to \$2,412,216 or 62% in 2018.

## R&D

Total R&D was \$5,677,222 in 2019 compared to \$6,430,328 in 2018, a decreased of \$753,106 (12%). For the purposes of the following R&D analysis, non-cash stock-based compensation of \$(28,883) (2018 - \$140,853) has been excluded and is included with the analysis of non-cash stock-based compensation below.

R&D, net of stock-based compensation decreased by \$583,370 (9%) to \$5,706,105 in 2019 from \$6,289,475 in 2018. The decrease in R&D does not reflect reduced activity but rather the fact that only 10 months of R&D activity are reflected in 2019 compared to 12 months of activity in reported 2018. Had the comparative periods been the same it is estimated that 2019 R&D would have increased marginally due to the effort expended to accelerate certain component developments, and to reach other technical milestones, including the launch of the advanced Integrated Light Module (ILM), designed specifically for high-performance wind LIDAR and other environmentally-stressed applications. The Company also launched a new 1653 DFB laser for targeting the methane gas sensing markets and the 1650nm Fabry-Perot (FP) laser for test and measurement applications, targeting the OTDR (Optical Time-Domain Reflectometer) market where the equipment is used to detect faults and understand the losses along a given length of fiber-optic cable in networking and data communications systems.

## Wages and benefits

Wages and benefits decreased by \$146,855 (14%) to \$887,860 in 2019 from \$1,034,715 in 2018. The decrease is related to the stub period reported in 2019 compared to the 12 months in 2018. Had 12 months of wages and benefits been reported for both years, the variance would have been negligible.

## Depreciation and amortization

IFRS accounting requires that depreciation and amortization cease when reporting discontinued operations. As a consequence, no depreciation and amortization was reported in 2019 for discontinued operations. Depreciation and amortization was \$2,409,380 in 2018.

## General expenses and rent

General expenses and rent decreased by \$698,195 (40%) to \$1,062,907 in 2019 from \$1,761,102 in 2018. The decrease is related to the stub period reported in 2019 compared to the 12 months in 2018. Additionally, the application of the new IFRS 16 standard in January 2019 resulted in the re-characterization of rent. Rent expense has now been replaced with interest cost related to a lease liability and amortization related to a right of use asset. Rental payments are now applied against the newly established lease liability. There was a corresponding reduction in rent expense during the year and an increase in interest cost. Due to the cessation of amortization, no amortization was recorded against the right of use asset. All rental payments were charged to rent expense in 2018.

## Interest expense

During the 2019, the Company recorded non-cash interest expense of \$74,494 relating to the afore-mentioned lease liability. The Company did not have an interest expense in 2018.

## Impairment

Non-cash impairment was nil in 2019 compared to \$156,717 recorded in 2018. In 2018, management determined that certain property and equipment would no longer be used to generate future cash flows and committed to plan to dispose of such property and equipment. The Company disposed of assets that were no longer in use. The assets were impaired prior to their disposal. The fair value was less cost to sell was determined to be \$3,000 which was greater than its value in use.

#### Credit Risk

The Company is exposed to credit risk associated with its accounts receivable. The Company has accounts receivable from both governmental and non-governmental agencies. Credit risk is minimized substantially by ensuring the credit worthiness of the entities with which it carries on business. Credit terms are provided on a case by case basis. The Company has not experienced any significant instances of non-payment from its customers.

The Company's accounts receivable ageing at December 31 was as follows:

	2019	2018	2017
Current	\$ -	\$ 892,343	\$ 330,731
31 - 60 days	-	34,331	56,094
61 - 90 days	-	60,885	-
> 90 days	-	-	107,100
Expected credit losses (1)	-	(40,615)	-
	\$ -	\$ 946,944	\$ 493,925

(1) The Company applies IFRS 9 simplified approach to measuring expected credit losses using a lifetime expected credit loss allowance for trade receivables.

The allowance is included in selling, general and administrative expenses in the consolidated statements of operations and deficit. Amounts charged to the loss allowance account are generally written off when there is no reasonable expectation of recovery.

In prior years, the impairment of trade receivables was assessed based on the incurred loss model and determined by management in accordance with its assessment of recoverability. Receivables for which an impairment provision was recognized were written off against the provision when there was no expectation of recovering additional cash.

Year Ended December 31, 2018 compared to Year Ended December 31, 2017

#### Revenue

During 2018, DenseLight reported revenue of \$3,888,185 compared to \$2,794,044 in 2017, a 39% increase driven primarily by an increase in product sales and non-recurring engineering (NRE) revenue. In November 2018 the Company received its first orders for POET Optical Interposer-based solutions from leading global networking companies targeting data communication applications, which represented entry into a new served market for the Company's products. The increase in sales of \$1,094,141 contributed to an increase in gross margin from 52% to 62%.

#### R&D

Total R&D increased by \$3,026,876 from \$3,403,452 in 2017 to \$6,430,328 in 2018. For the purposes of the following R&D analysis, non-cash stock-based compensation of \$140,853 (2017 - \$150,112) has been excluded and is included with the analysis of non-cash stock-based compensation below.

The largest increase for the comparative periods was R&D which increased by \$3,036,135 (93%) to \$6,289,475 in 2018 from \$3,253,340 in 2017. Since May of 2016, DenseLight has systematically increased its R&D activities in an effort to bring new products to market and expand its product portfolio. The increased R&D activity has contributed to the development of the POET Optical Interposer platform utilizing the Company's proprietary waveguides. As a result of increased R&D spending in the period, the Company successfully demonstrated the functionality of PIN photodetectors targeting 100G to 400G optical transceivers. New skilled technical human resources, especially in optics and photonics device testing, represent the largest area of increase in R&D. The increase is consistent with the Company's budgeted R&D activity. Our expectation is that the R&D activity conducted in 2018 will lead to sales of new products in 2019.

#### Non-cash stock-based compensation

Non-cash stock-based compensation increased by \$202,672 (94%) to \$419,238 during 2018 from \$216,566 in 2017. The valuation of stock options is driven by a number of factors including the number of options granted, the strike price and the volatility of the Company's stock. The stock option expense is dependent on the timing of the stock option grant and the amortization of the options as they vest. The stock options vest in accordance with the policies determined by the Board of Directors at the time of the grant consistent with the provisions of the Stock Option Plan, as amended (the "Plan").

#### Depreciation and amortization

Non-cash depreciation and amortization increased by \$316,472 (15%) to \$2,409,380 in 2018 from \$2,092,908 in 2017. The Company has committed to improving its fabrication facilities in Singapore, and its overall manufacturing capabilities, which includes acquiring new equipment for the Optical Interposer program. The addition of new equipment will result in increased depreciation charges.

#### Other income

Other income in 2018 decreased by \$256,689 (15%) to \$1,491,556 in 2018 from \$1,748,245 in 2017. The Company is entitled to a recovery of certain qualifying expenses from the EDB in Singapore. The recoverable amount in 2017 was higher than the amount in 2018 in part due to a reduction adjustment in 2018 related to the over accrued recovery for 2017. If the adjustment had not been done, the recovery would have been more comparable year over year.

#### Impairment

During the year ended December 31, 2018, management determined that certain property and equipment would not be used to generate future cash flows and committed to a plan to dispose of the property and equipment by December 31, 2018. Management used a market approach to determine the property and equipment's fair value less cost to sell. Key assumptions included the cost of similar assets, the impact of customization and unique use. The fair value less cost to sell was determined to be \$3,000 which is greater than its value in use. The Company recorded an impairment loss of \$156,717 on the property and equipment and reclassified \$3,000 from property and equipment to non-current assets held for sale. The property and equipment was sold in December 2018.

#### Credit Risk

The Company is exposed to credit risk associated with its accounts receivable. The Company has accounts receivable from both governmental and non-governmental agencies. Credit risk is minimized substantially by ensuring the credit worthiness of the entities with which it carries on business. Credit terms are provided on a case by case basis. The Company has not experienced any significant instances of non-payment from its customers.

The Company's accounts receivable ageing at December 31 was as follows:

	2018	2017
Current	\$ 892,343	\$ 330,731
31 - 60 days	34,331	56,094
61 - 90 days	60,885	-
> 90 days	-	107,100
Expected credit losses (1)	(40,615)	-
	<b>\$ 946,944</b>	<b>\$ 493,925</b>

(1) The Company applies IFRS 9 simplified approach to measuring expected credit losses using a lifetime expected credit loss allowance for trade receivables.

The allowance is included in selling, general and administrative expenses in the consolidated statements of operations and deficit. Amounts charged to the loss allowance account are generally written off when there is no reasonable expectation of recovery.

In prior years, the impairment of trade receivables was assessed based on the incurred loss model and determined by management in accordance with its assessment of recoverability. Receivables for which an impairment provision was recognized were written off against the provision when there was no expectation of recovering additional cash.

## B. Liquidity and Capital Resources

The Company had working capital of \$15,354,149 on December 31, 2019 compared to \$3,847,842 on December 31, 2018. The Company's balance sheet as of December 31, 2019 reflects assets with a book value of \$24,077,355 compared to \$25,137,903 as of December 31, 2018. Eighty-four percent (84%) of the book value at December 31, 2019 was in current assets consisting primarily of receivable from the sale of discontinued operations of \$18,000,000 compared to twenty-seven percent (27%) of the book value as of December 31, 2018, or \$6,888,264, was in current assets consisting primarily of cash and other current assets.

The Company is satisfied that it has sufficient working capital to meet its operating requirements over the next 12 months.

The following is a summary of Company's cash flows and working capital:

	2019	2018	2017
	\$	\$	\$
Net cash used in operating activities	(9,394,221)	(9,288,588)	(9,163,689)
Net cash from investing activities	5,397,139	(3,535,600)	(441,065)
Net cash from financing activities	3,135,255	10,648,003	123,528
Effect of exchange rate changes on cash	(277,912)	(230,425)	79,422
Change in cash	(1,139,739)	(2,406,610)	(9,401,804)
Opening cash	2,567,868	4,974,478	14,376,282
Ending cash	1,428,129	2,567,868	4,974,478

#### Operating Activities

During 2019, the Company had consolidated losses of \$5,952,875 (2018 - \$16,322,779, 2017 - \$12,797,797). Included in the consolidated loss was income from discontinued operations of \$5,481,757 in 2019. (2018 – loss of \$7,900,662, 2017 – loss of \$4,888,946).

The operating activities of the continuing operation included the following non-cash items: non-cash stock-based compensation of \$2,888,141 (2018 – \$3,602,879, 2017 - \$2,958,358), depreciation and amortization of \$243,674 (2018 - \$153,244, 2017 - \$182,252), impairment of long lived assets and goodwill of \$1,764,459, amortization of debt issuance cost of \$372,340 (2018 and 2017 – nil) and accretion of debt discount on convertible debentures of \$280,829 (2018 and 2017 – nil).

The Company will regularly have high non-cash stock-based compensation as it uses stock options as method of attracting, retaining and motivating directors, employees and consultants of the Company and any of its subsidiaries and to closely align the personal interests of such directors, employees and consultants with those of the shareholders by providing them with the opportunity, through options, to acquire common shares in the capital of the Company while managing compensation through cash.

The Company raised \$7,729,921 of debt financing from various lenders at varying times throughout 2019, net of directly related issue costs. The issuance cost of debt in 2019 was amortized over the life of the related debt resulting in the amortization of debt issuance cost of \$372,340.

Included in the debt raised in 2019 were convertible debentures issued at a discount. The discount on the convertible debentures are accreted over the life of the convertible debentures. This non-cash cost of accretion of debt discount on convertible debentures was \$280,829. There were no such costs in the prior years because 2019 was the first time the Company issued such debt instruments.

Accounts receivable decreased from \$946,944 in 2018 to nil in 2019. All sales in the Company were reported through DenseLight as a result all receivables were also collectible in DenseLight. Due the sale of DenseLight and all its assets, the Company had no receivables at December 31, 2019.

Prepays and other current assets also decreased from 2018 to 2019. The Company had \$2,936,619 of prepaid and other current assets in 2018 and \$831,265 in 2019. 98% of the 2018 prepaid and other current assets were recoverable in DenseLight including a recoverable amount of \$1,905,593 due from the Economic Development Board of Singapore. With sale of DenseLight, the Company no longer has high prepaid and other current assets.

With the sale of DenseLight, the Company had a substantial reduction in accounts payable and accrued liabilities which was reduced from \$3,040,422 in 2018 to \$1,725,708 in 2019.

While discontinued operations reported income from discontinued operations of \$5,481,757, (2018 – loss of \$7,900,662) it had negative cash flows of \$2,951,104 (2018 - \$4,790,793). The loss was due primarily to the add back of the gain from the sale of discontinued operations of \$8,707,280.

Consolidated negative cash flow from operations was \$9,394,221 in 2019 compared to \$9,288,588 in 2018.

#### Investing Activities

In 2019, the Company had consolidated cash flow from investing activities of \$5,397,139 of which \$7,007,642 was from the continuing operations while discontinued operations spent \$1,610,503 on investing activities.



The Company received 8,000,000 on November 8, 2019 from the sale of DenseLight. The Company has a receivable of \$18,000,000 that remained outstanding from the sale on December 31, 2019, \$4,750,000 of which was paid on February 14, 2020 and \$8,250,000 was paid on March 30, 2020.

The Company spent a cumulative \$2,121,987 on capital purchases in 2019 with \$511,484 spent in the continuing operations and \$1,610,503 spent on capital purchases at DenseLight. Comparatively, in 2018, the Company either spent cash or accrued \$3,718,152 on certain critical equipment, primarily consisting of; die pick tool, Omega etch, APM PECVD and C2L Transport. Almost all capital expenditure was incurred at DenseLight in 2018.

#### Financing Activities

During 2019 the Company closed five tranches of a private placement of the Convertible Debentures that raised gross proceeds of \$3,729,921. The Convertible Debentures, bear interest at 12% per annum, compounded annually with 1% payable at the beginning of each month and mature two years from the date of issue. The Company paid \$373,502 in brokerage fees and other costs related to the closing of these five tranches.

The Convertible Debentures are convertible at the option of the holders thereof into units at any time after October 31, 2019 at a conversion price of CAD\$0.40 per unit for a total 12,470,730 units of the Company. Each unit will consist of one common share and one common share purchase warrant. Each common share purchase warrant will entitle the holder to purchase one common share of the Company at a price of CAD\$0.50 per share for a period of two years from the date upon which the convertible debenture is converted into units. Upon completing the sale of DenseLight and receiving the full sale proceeds of \$26,000,000, holders of Convertible Debentures have the right to cause the Company to repurchase the Convertible Debentures at face value, subject to certain restrictions. The Convertible Debentures are governed by a trust indenture between the Company and TSX Trust Company as trustee. The Company has not notified the trustee or the holders of the debentures that the sale of DenseLight has been completed and will not do so until the final payment of \$5,000,000 is received from the Buyers, which is expected on or before May 31, 2020.

Insiders of the Company subscribed for 14.3% or \$535,000 of the Convertible Debentures, including the Company's board of directors and senior management team. Insiders of IBK Capital subscribed for 4% or \$146,000 of the Convertible Debentures.

In addition to issuing convertible debentures, the Company was advanced \$3,100,000 in various increments from Espresso Capital Ltd as part of a \$5,000,000 credit facility. The Company paid 19.25% in interest on the funds advanced from the date of each advance until November 8, 2019 when the advance was repaid. The Company paid \$147,077 in costs related to the Bridge Loan. Additionally, the Company issued to Espresso Capital Ltd, warrants for the purchase of 3,289,500 common shares at a price of CAD\$0.35 per share. The Warrants expire on April 18, 2020. The fair value of the warrants was estimated on the date of issue using the Black-Scholes option pricing model with the following assumptions: volatility of 78.91%, interest rate of 1.62% and an expected life of 1 year. The estimated fair value assigned to the warrants was \$221,620. The total cost of \$368,697 along with the foreign exchange impact of \$3,543 was deferred and charged against the Bridge Loan and subsequently amortized over the life of the Bridge Loan. The Bridge loan was repaid on November 8, 2019.

The Company was also advanced \$900,000 of a \$1,000,000 promissory note on August 30, 2019 at 15% interest per annum. The \$900,000 advance and accrued interest were repaid on November 8, 2019.

The financing in 2018 was through the issuance of common shares when the Company completed a brokered "bought deal" public offering of 25,090,700 units at a price of \$0.425 (CAD\$0.55) per unit for gross proceeds of \$10,663,548 (CAD\$13,799,885). Each unit consists of one common share and one-half common share purchase warrant. Each whole warrant entitles the holder to purchase one common share of the Company at a price of \$0.58 (CAD\$0.75) per share until March 21, 2020. The broker was paid a cash commission of \$639,813 (6%) of the gross proceeds and received 1,505,442 compensation options. Each compensation option is exercisable into one compensation unit of the Company at a price of \$0.425 (CAD\$0.55) per compensation unit until March 21, 2020 with each compensation unit comprising one common share and one-half compensation share purchase warrant. Each whole compensation share purchase warrant entitles the broker to purchase one common share of the Company at a price of \$0.425 (CAD\$0.55) per share until March 21, 2020. The Company paid an additional \$492,177 in other costs related to this financing.

#### Capital Expenditures

The Company has an approved capital budget of \$1,044,926 for the 2020 fiscal year related to research and development equipment, manufacturing equipment and patent registration. In 2019, \$2,121,987 (2018 - \$3,785,760, 2017 - \$1,030,340) was either spent in cash or accrued for acquiring development and manufacturing equipment and new patents.

### C. Research and Development

Virtually all of POET's R&D expenditures in recent years have been in some way connected to the Optical Interposer. We expect to continue to spend the majority of our R&D resources for the foreseeable future on Optical Interposer-based components across a variety of potential applications. DenseLight has also incurred R&D expenditures for conventional non-interposer-based products, primarily in the area of photonic sensing that represent the majority of the Company's current product sales.

As a platform technology, Optical Interposer development does not have a specific end point. Each application of the Optical Interposer requires development specific to the application. POET's product roadmap is currently focused on the development of Optical Engines for optical transceivers. Optical Engines include all of the photonics-related components of a transceiver but do not include several of the electronic devices needed for a functioning transceiver module. Nor does it include the external packaging and optical fibers. Nevertheless, Optical Engines represent the majority of the cost and value of most optical transceivers.

The "active" components that are included in a POET Optical Engine include lasers, detectors and modulators fabricated on InP or Silicon substrate and specifically designed to be integrated into the Optical Interposer fabric. We have supplemented our active component device development with co-development partners and license agreements, including for certain types of lasers and modulators. This not only reduces the risk to internal development and accelerates time to market, but it also ensures second sources of Optical Interposer-compatible active components, a critical part of our strategy going forward.

In parallel to these activities, POET also directed development programs in two other areas for the Optical Interposer platform outside of DenseLight, including Passive Component design and development and Core Integration process development. Passive devices include filters, mux-demux devices, waveguides and spot size converters, all designed and fabricated using POET's proprietary materials and processes. The Optical Interposer devices are fabricated at a third-party foundry. We transferred the basic processes for producing our Optical Interposers to our foundry partner in 2018 and since then we have continued to improve those processes in order to make them suitable for high volume manufacturing.

Core Integration Process Development relates primarily to advanced packaging methods that, combined with the unique design of the Optical Interposer, allows true wafer-scale assembly and test. We do not believe that such true wafer-scale integration has yet been demonstrated by any other approach in the photonics industry. We are able to achieve chip-level integration and wafer-scale assembly, test and packaging because all of the active devices are designed to be placed and "matched" to passive device interfaces on the foundational Optical Interposer wafer using pick-and-place assembly techniques. We eliminate the high cost and cumbersome process of testing each component following placement. Once placed and tested at wafer scale, each Optical Interposer device is sealed, the wafer is separated into hundreds of individual die, and the final Optical Engine is ready for shipment to the customer. Each of these process steps, from flip-chipping of devices onto the Optical Interposer, pick and place assembly, hermetic sealing and singulation required substantial innovation and development, including several techniques that are unique in the photonics and compound semiconductor industries.

We are working with leading industry partners on optical engines and other components for 400G transceivers, which is the next generation of transceiver modules that are expected to be introduced into data centers in the coming months and years. We believe that the Optical Interposer platform is very relevant to markets beyond data communications, such as telecommunications, Automotive LIDAR, and integration with Application Specific Integrated Circuits (ASICs), including switches and graphics generators.

Internally generated research costs, including the costs of developing intellectual property and maintaining patents are expensed as incurred. Internal development costs are expensed as incurred unless such costs meet the criteria for deferral and amortization under IFRS, which to date has not occurred.

We incurred a cumulative \$7,761,037, \$8,692,804 and \$5,442,873 of research and development expenses in 2019, 2018 and 2017, which includes non-cash stock-based compensation of \$208,421, \$536,321 and \$369,007 respectively. Other expenses related to research and development expenditures in the semiconductor business include costs associated with salaries, material costs, license fees, consulting services and third-party contract manufacturing. The expenses in all years presented can be analyzed for continuing and discontinuing operations as follows:

**R&D for Continuing Operations**

	For the Years Ended December 31,		
	2019	2018	2017
Wages and benefits	\$ 874,673	\$ 822,258	\$ 703,759
Subcontract fees	834,598	888,566	1,044,936
Stock-based compensation	237,311	395,468	218,896
Supplies	137,233	156,184	71,830
	\$ 2,083,815	\$ 2,262,476	\$ 2,039,421

**R&D for Discontinued Operations**

	For the Period from January 1, 2019 to November 8,		For the Years Ended December 31,	
	2019	2018	2018	2017
Wages and benefits	\$ 3,565,076	\$ 3,818,980	\$ 2,135,329	
Supplies	1,412,572	2,070,495	1,118,011	
Subcontract fees	728,457	400,000	-	
Stock-based compensation	(28,883)	140,853	150,112	
	\$ 5,677,222	\$ 6,430,328	\$ 3,403,452	

**D. Trend Information**

Other than as may be disclosed elsewhere in this annual report and specifically in ITEM 4.B. "Business Overview," we are not aware of any trends, uncertainties, demands, commitments or events that are reasonably likely to have a material effect on our net revenues, income from operations, profitability, liquidity or capital resources, or that would cause the disclosed financial information to be not necessarily indicative of future operating results or financial condition.

**E. Off-Balance Sheet Arrangements**

The Company has no material off-balance sheet arrangements in place at this time.

F. Tabular Disclosures of Contractual Obligations

The following table sets forth our contractual obligations and commercial commitments as of December 31, 2019:

Contractual Obligations	Payments due by period (US\$)				
	Total	<1 year	1-3 years	3-5 years	>5 years
Lease Obligations	\$ 665,491	\$ 170,759	\$ 494,732	\$ -	\$ -

G. Safe Harbor

See "Forward Looking Statements" on page 1 of this Annual Report.

ITEM 6. DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES

A. Directors and Senior Management

The following table sets forth information regarding our Directors and Officers for the most recent financial year.

Name	Positions	Age	Date First Elected or Appointed a Director or Officer
Jean-Louis Malinge (3)	Director	66	September 5, 2017
Peter Charbonneau (1)(3)	Corporate Governance and Nominating Committee Chair and Director	66	March 28, 2018
Dr. Suresh Venkatesan	Chief Executive Officer and Chairman	53	June 11, 2015
Kevin Barnes	Corporate Controller and Treasurer	48	December 1, 2012
Thomas R. Mika	Chief Financial Officer	68	November 2, 2016
Don Listwin (2)	Chair of Compensation Committee and Director,	61	January 22, 2018
Vivek Rajgarhia	President and General Manager	52	November 4, 2019
Chris Tsiofas (1)(2)	Audit Committee Chair and Director	52	August 21, 2012
James Lee	General Manager – POET Technologies Pte Ltd.	48	September 2, 2019
David E. Lazovsky (2)(5)	Director	48	April 8, 2015
Mohandas Warrior (1)	Director	59	June 15, 2015
Rajan Rajgopal (4)	President – DenseLight Semiconductor Pte. Ltd.	55	January 23, 2017
Richard Zoccolillo	Senior Vice President – Strategic Marketing and Product Management	57	September 20, 2018

(1) Member of Audit Committee

(2) Member of Compensation Committee

(3) Member of Corporate Governance and Nominating Committee

(4) Transferred as part of Sale of DenseLight.

(5) Resigned as Executive Chairman during 2019 but remained a director

Dr. Suresh Venkatesan as CEO. Dr. Venkatesan was most recently Senior Vice President, Technology Development at Global Foundries and was responsible for the Company's Technology Research and Development. Dr. Venkatesan joined Global Foundries in 2009, where he led the development and ramp up of the 28nm node and was instrumental in the technology transfer and qualification of 14nm. In addition, he was responsible for the qualification and ramp up of multiple mainstream value-added technology nodes.

Mr. Thomas Mika as EVP & CFO. Prior to joining POET, Mika served for one year as the Executive Chairman of Rennova Health, Inc., the successor company to CollabRx and its predecessor, Tegal Corporation, a semiconductor capital equipment company (NASDAQ: TGAL). On the Board of Directors of Tegal since its spin-out from Motorola in 1989, Mika assumed the roles of Chief Financial Officer in 2002, CEO in 2005 and Chairman & CEO in 2006, positions which he held until 2015. In 2015, Tegal merged with Rennova Health with Mika retaining the position of Chairman until joining POET in November 2016. In 1980, Mika co-founded IMTEC, a boutique M&A, investment and consulting firm, serving clients in the U.S., Europe and Japan over a period of 20 years, taking on the role of CEO in several ventures. Earlier in his career, Mika was a managing consultant with Cresap, McCormick & Paget and a policy analyst for the National Science Foundation. He holds a Bachelor of Science in Microbiology from the University of Illinois at Urbana-Champaign and a Master of Business Administration from the Harvard Graduate School of Business.

Mr. Kevin Barnes has been serving as Corporate Controller and Treasurer since 2008 and briefly as Chief Financial Officer (2016 – 2016). Mr. Barnes holds a Master of Business Administration and is a member of the Institute of the Certified Management Accountants of Australia and an Accredited Chartered Secretary. Mr. Barnes served as a Corporate Controller and Business Performance Manager for EC English, one of the world's largest language training institutes between 2006 and 2014. Mr. Barnes also serves as Chief Financial Officer of VVC Exploration Corporation, a minerals exploration company since 2006. From 2000 to 2006, he was a reporting manager with Duguay and Ringler Corporate Services, which specializes in financial reporting for publicly traded companies.

Mr. Chris Tsiofas, CA, CPA, earned a Bachelor's of Commerce Degree from the University of Toronto and is a member of the Chartered Professional Accountants of Canada and the Canadian Tax Foundation. He has been on the Board of Directors since August of 2012. He is the president of MTN Chartered Professional Accountant Professional Corporation, a public accountancy firm.

David E. Lazovsky is the founder of Intermolecular and served as that company's President and Chief Executive Officer and as a member of the board of directors from September 2004 to October 2014. Mr. Lazovsky has an in-depth knowledge of the semiconductor industry, technology and markets. Prior to founding Intermolecular, Mr. Lazovsky held several senior management positions at Applied Materials (NASDAQ: AMAT). From 1996 through August 2004, Mr. Lazovsky held management positions in the Metal Deposition and Thin Films Product Business Group where he was responsible for managing more than \$1 billion in Applied Materials' semiconductor manufacturing equipment business. Mr. Lazovsky holds a B.S. in mechanical engineering from Ohio University and, as of March 31, 2014, held 41 pending or issued U.S. patents. Mr. Lazovsky was appointed as the Chairman of the Board on February 1, 2017.

Mr. Mohan Warrior has been an Angel Investor for early stage technology companies since Jan 2017 and serves as an Adviser to many of them. Mr. Warrior was president and chief executive officer (CEO) of Alfalight Inc. ("Alfalight") from February 2004 to Sep 2016. Alfalight is a GaAs based high power diode laser manufacturing company with headquarters in Madison, Wisconsin. Alfalight serves military, telecom and industrial customers. Mr. Warrior established Alfalight as a leading provider of high-powered laser diode solutions in both commercial and defense segments. Alfalight was sold to Gooch and Housego in 2016. Prior to joining Alfalight, Mr. Warrior's career included 15 years at Motorola Semiconductors (now Freescale) where he led the test and assembly operations, a group of 3500 employees, in the US, Scotland and Korea. Mr. Warrior earned his Bachelor's degree in Chemical Engineering from Indian Institute of Technology, Delhi, a Master's degree in Chemical Engineering from Syracuse University, New York and an MBA from the Kellogg School of Management at Northwestern University

Mr. Jean-Louis Malinge serves as partner with ARCH Venture Partners, an early-stage venture capital firm with nearly \$2 billion under management. Additionally, he is a board member of EGIDE SA, CAILabs and Aeponyx. EGIDE SA is a public French company which designs, manufactures and sells hermetic packages for the protection and interconnection of several types of electronic and photonic chips. CAILabs is a venture-backed French innovative start-up founded in 2013 which has developed a unique spatial multiplexing platform. Aeponyx is a venture-backed Canadian innovative start-up which develops a platform combining Silicon Nitride waveguides with planar MEMS for photonics components. From 2004 to 2013 Jean- Louis was President and CEO of Kotura, a Silicon Photonics pioneer which was acquired in 2013 by Mellanox Technologies. Prior to Kotura Mr. Malinge was an executive with Corning Inc for 15 years. Jean-Louis hold an Executive M.B.A. from MIT Sloan School in Boston, Massachusetts. He also holds an engineering degree from the Institut National des Sciences Appliquées in Rennes, France.

Mr. Don Listwin has over 30 years of technology investing and management experience, highlighted by a decade at Cisco Systems, where he served as executive vice president. During his tenure at Cisco, he built several multi-billion-dollar lines of business, including the company's Service Provider line of business that underpins much of today's global Internet infrastructure. More recently, Listwin served as chief executive officer of both Sana Security and Openwave Systems. In addition, Listwin founded and holds the role of chief executive officer of the Canary Foundation, a non-profit research organization focused on the early detection of cancer. He also serves as a director on the boards of AwareX, Calix, iSchemaView, Robin Systems and Teradici. Previously, he also served on the boards or was an advisor to JDS Uniphase, PLUMgrid, Redback Networks, E-TEK Dynamics, the Cellular Telecommunications & Internet Association (CTIA) and the Business Development Bank of Canada (BDC).

Mr. Charbonneau was a general partner at Skypoint Capital Corporation for almost 15 years, where he was jointly responsible for the placement of \$100 million of capital in early-stage telecommunications and data communication companies. Charbonneau currently serves on the board of directors of Teradici Corporation, a collaboration solutions Company and the creator of PCoIP protocol technology and Cloud Access Software. He recently served on the Board of Mitel Networks Corporation, a leading global provider of cloud and on-site business communications until November 2018 when it was sold to a private equity firm. He served as Lead Director, Chair of the Nominating and Governance Committee and Chair of the Audit Committee. He previously served as Chairman of the Board of Trustees for the CBC Pension Board and a director on the board of the Canadian Broadcasting Corporation as well as many technology and networking companies, including March Networks Corporation, TELUS Corporation, Breconridge Corporation and Dragonwave Incorporated.

Mr. Zoccolillo joined the Company with extensive experience in the photonics industry, including senior management roles at Infinera, Opnext and Lucent Technology's optical networking business. He has held senior management roles in Operations as well as General Management roles executing on growth-oriented business strategies. Mr. Zoccolillo has served on the Advisory Board for Kaiam Corporation and the School of Science and Technology of Monmouth University.

Mr. Rajgarhia was Senior Vice President & General Manager of the Lightwave Business Unit of MACOM. Mr. Rajgarhia joined MACOM through the acquisition of Optomai Inc., where he was the Co-Founder and CEO, representing MACOM's initial entry into the optical business. He was then instrumental in identifying and leading several strategic acquisitions to build an extensive portfolio of optical and photonic businesses, which formed MACOM's Lightwave Business Unit. Mr. Rajgarhia has held senior management positions during his 30 years in the optical communications industry. He was the Director of Sales & Marketing (Asia) for Lucent Technologies' (now Nokia) optical components, where he started its Asia business; Vice President of Product Marketing and Business Development for OpNext (formerly Hitachi's Fiber Optics Division), where he was part of the team to spin-off the optical business from Hitachi; Director of Product Management & Marketing for JDS Uniphase (now Viavi), and VP of Global Sales for GigOptix. Mr. Rajgarhia has been a successful entrepreneur, founding two optical companies, and has held international assignments in Hong Kong, Germany and India. He holds a Bachelor of Engineering (Electrical) degree from Stevens Institute of Technology in New Jersey.

Mr. Lee was Vice President of Logic Technology at IMEC where he was responsible for defining the logic roadmap and developing the technology elements necessary to extend scaling with ultra-scaled FinFET, GAA devices, advanced metallization as well novel materials for emerging devices and quantum computing. Mr. Lee joined IMEC in 2015 where he was instrumental in driving collaborations with the foundries in China and was responsible for bringing in >100M euros of research partnership. Prior to IMEC, Mr. Lee had a 19-year career with GLOBALFOUNDRIES where he held various technical and management positions spanning the US and Singapore focused on developing, qualifying and ramping leading edge CMOS technology in the foundry. He has over 60 patents and holds a Bachelor of Engineering degree from the University of Illinois at Champaign-Urbana.

The Directors, unless otherwise noted above, have served in their respective capacities since their election and/or appointment, and will serve until the next Company's annual general meeting or until a successor is duly elected, unless the office is vacated in accordance with the Articles of Continuance.



The Board has adopted a written Code of Business Conduct and Ethics to promote a culture of ethical business conduct and relies upon the selection of persons as directors, senior management and employees who they consider to meet the highest ethical standards. The Company's Code of Business Ethics can be found on the Company's web site at: [www.poet-technologies.com](http://www.poet-technologies.com).

There are no family relationships between any of our Directors or senior management. There are no arrangements or understandings with major shareholders, customers, suppliers or others, pursuant to which any person referred to above was selected as a Director or member of senior management.

#### B. Compensation

##### Fixed Stock Option Plan

On September 21, 2007, the Directors approved a fixed 20% vesting Stock Option Plan (the "Plan") to replace the Rolling Stock Option Plan that had been in effect since May 4, 2005. The Plan was approved by the disinterested shareholders of the Company at the Shareholders' Meeting of June 19, 2008 and accepted for filing by the TSXV. Under the Plan, the maximum number of shares (the "Maximum Number") which may be issued pursuant to options granted under the Plan or otherwise granted cannot exceed 20% of the issued and outstanding shares. The shareholders fixed the Maximum Number at 11,930,000. Thereafter, the Plan has been amended by the Directors, and such amendments have been approved by the shareholders in 2009, 2011, 2013, 2014, 2015, 2016 and 2018. The Maximum Number is currently 57,611,360 shares.

The purpose of the Plan is to assist the Company in attracting, retaining and motivating directors, employees and consultants of the Company and any of its subsidiaries and to closely align the personal interests of such directors, employees and consultants with those of the shareholders by providing them with the opportunity, through options, to acquire common shares in the capital of the Company.

The Plan provides that the number of common shares issuable pursuant to options granted under the Plan and pursuant to other previously granted options is limited to the Maximum Number, currently fixed at 57,611,360. Any subsequent increase in the Maximum Number must be approved by shareholders of the Company and cannot exceed 20% of the issued and outstanding shares of the Company at the time of the shareholders' approval. There is no other limit to the number of options granted to any individual, except for:

(i) 2% on a yearly basis to any one consultant and (ii) 2% on a yearly basis to any employee providing "Investor Relations Activities."

The following paragraphs summarize some of the terms of the Plan:

**Eligibility.** Options may be granted under the Plan to directors, employees, consultants and consultant companies of the Company and any of its subsidiaries. Options may also be granted to individuals referred to as "Management Company Employees" which are employed by a company providing management services to the Company, except for services involving "Investor Relations Activities."

**Plan Administration.** The Board of Directors is the plan administrator, subject to the advice and recommendations of our Compensation Committee. The plan administrator will determine the provisions and terms and conditions of each grant.

Exercise Price. The exercise price subject to an option shall be determined by the Board and set forth in the option agreement, but shall be either (i) not less than the last closing price of the Company's common shares as traded on the TSXV, unless discounted by the Board or (ii) such other price agreed by the Board and accepted by the TSXV. Except in certain circumstance, the Company can amend the other terms of a stock option only where prior TSXV acceptance is obtained and where the following requirements are met:

- (i) if the amendment is in respect of an option held by an insider of the Company, but excluding amendments to extend the length of the stock option term, the Company obtains disinterested shareholder approval;
- (ii) if the option exercise price is amended, at least six months have elapsed since the later of the date of commencement of the term, the date the Company's shares commenced trading, or the date the option exercise price was last amended;
- (iii) if the option price is amended to the discounted market price, the exchange hold period is applied from the date of the amendment (and for more certainty where the option price is amended to the market price, the exchange hold period will not apply); and
- (iv) if the length of the stock option term is amended, any extension of the length of the term of the stock option is treated as a grant of a new option, and therefore the amended option must comply with the pricing and other requirements of the policy as if it were a newly granted option. The term of an option cannot be extended so that the effective term of the option exceeds 10 years in total. An option must be outstanding for at least one year before the Company can extend its term.

The TSXV must accept a proposed amendment before the option may be exercised as amended. If the Company cancels a stock option and within one year grants new options to the same individual, the new options will be subject to the requirements in sections (i) to (iv) above.

Option Agreement. Options granted under the plan are evidenced by an option agreement that sets forth the terms, conditions and limitations for each grant.

Term of the Awards. At the meeting of the Board of Directors held on February 25, 2016, based on the report of Compensia, it was determined that stock options should generally have a term of 10 years.

Vesting Schedule. In general, options granted under the Plan vest 25% immediately and 25% every six months from the date of issue, until fully vested. The directors may, at their discretion, specify a different vesting period, provided that options granted to consultants performing "Investor Relations Activities" must vest in stages over 12 months with no more than 25% of the options vesting in any three-month period. At the meeting of the Board of Directors held on February 25, 2016, based on the report of Compensia, it was determined that stock options should vest 25% at the end of one year from the date of issue with the remaining 75% vesting equally on a quarterly basis over the remaining 3 years for a total vesting period of 4 years. At a meeting of the Board of Directors held on March 30, 2017, the board approved a revised one-year vesting schedule for options granted for service on the board to conform to the term for which a director is elected. Such options will vest 25% at the end of each quarter served in office.

Transfer Restrictions. Options granted under the Plan may not be transferred in any manner by the option holder other than by will or the laws of succession and may be exercised during the lifetime of the option holder only by the option holder. Securities that are subject to restrictions may not be transferred during the period of restriction.

Change of Control and Alteration of Capital. The Plan provides that if a Change of Control, as defined herein, occurs, the shares subject to option shall immediately become vested and may thereupon be exercised in whole or in part by the option holder. The Plan also provides for automatic adjustments in the number of optioned shares and/or the exercised price, in the event of an alteration in the share capital of the Company.

Termination of Options. In the event that the award recipient ceases employment with us or ceases to provide services to us, the options will terminate after a period of time following the termination of employment. Our Board of Directors has the authority to amend or terminate the plan subject to shareholder approval with respect to certain amendments. However, no such action may adversely affect in any material way any awards previously granted unless agreed upon by the recipient.

#### Officer Compensation

Total cash compensation accrued and/or paid (directly and/or indirectly) to all of our Officers during fiscal year 2019 was \$1,595,551 (refer to ITEM 7. "Major Shareholders and Related Party Transactions" for information regarding indirect payments)

In order to assist the Board of Directors in fulfilling its oversight responsibilities with respect to human resources matters, the Board established a Compensation Committee. The Compensation Committee reviews and makes determinations with respect to senior officer compensation on a regular basis with any discretionary compensation used only for extraordinary projects or significant milestone results that advance the Company's growth potential. When determining Executive Officers' compensation, the Compensation Committee receives input and guidance from the Executive Chairman of the Board and the Chief Executive Officer of the Company. In the past, the Compensation Committee has engaged an outside consultant to conduct a peer group review to provide guidance to the Compensation Committee with respect to appropriate comparative terms for executive compensation and stock option grants. The Company also utilizes peer group comparisons from subsidiary locations to assist in its salary review of various positions in those locations. The Compensation Committee utilizes such comparative reviews to assist it in making appropriate recommendations to the Board.

In addition to his or her fixed base salary, each officer may be eligible to receive variable pay compensation or bonus meant to motivate him or her to achieve short-term goals. Currently, the Company does not have in place established procedures for determining variable pay compensation. Stock options are an important element of the variable pay compensation and do not require cash disbursement from the Company. Stock options are also generally awarded to officers, qualifying employees and consultants at the time of hire and are used as a recruitment tool to attract highly qualified and experienced executives, employees and consultants to the Company. Stock options are also granted at other times during the year. As the Company is continuing to develop its Optical Interposer technology, it must conserve its limited financial resources and control costs to ensure that funds are available when needed to complete its scheduled developments. As a result, the Compensation Committee generally considers not only the financial situation of the Company at the time of the determination of the compensation, but also the estimated financial situation in the mid- and long-term. The use of stock options encourages and rewards performance by aligning an increase in each officer's compensation with increases in the Company's performance and in shareholder value.

The following table sets forth all annual and long-term compensation for services in all capacities to the Company for fiscal year 2019 of the Company.

Name and Principal Position	Fiscal Year	Salary (2)	Share-Based Awards (1) (2)	Options Based Awards (1)(2)		Annual Incentive Plans	Non-Equity Incentive Plan Compensation		All other Comp.	Total Comp.
				No. of Options	Value of Options (1) (2)		Long-term Incentive Plans	Pension Value		
David Lazovsky	2019	166,667	-	900,000	256,363	-	-	-	-	423,030
Dr. Suresh Venkatesan	2019	440,000	-	4,500,000	1,281,816	-	-	-	-	1,721,816
Richard Zoccolillo	2019	250,000	-	500,000	142,424	-	-	-	-	392,424
Kevin Barnes	2019	124,357	-	500,000	142,424	-	-	-	-	266,781
Thomas Mika	2019	300,000	-	1,000,000	284,848	-	-	-	-	584,848
Rajan Rajgopal	2019	219,917	-	-	-	-	-	-	-	219,917
Vivek Rajgarhia	2019	60,833	-	3,200,000	815,529	-	-	-	-	876,362
James Lee	2019	33,777	-	1,000,000	250,932	-	-	-	-	284,709

(1) The Company used the Black-Scholes model as the methodology to calculate the grant date fair value. The fair value will be recorded as an operating expense as the options vest based on the stock options vesting schedule from the date of grant.

(2) The exchange rate used in these calculations to convert CAD to USD is based on the exchange rate applicable at the date of grant.

The following table sets forth information concerning all awards outstanding under a stock option plan to each of the current officers, as of December 31, 2019:

Name	Option-Based Awards			Share-Based Awards		
	No. of Shares Underlying Unexercised Shares	Option Exercise Price (CA\$/share)	Option Expiration Date	Value of Unexercised in-the Money Options (1) (US\$)	Number of Shares or Units of Shares That Have Not Vested	Market or Payout Value of Share-Based Awards That Have Not Vested (US\$)
David Lazovsky	250,000	\$ 1.99	08-Apr-2020	-	N/A	N/A
	25,000	\$ 1.54	12-Jun-2020	-	N/A	N/A
	150,000	\$ 0.86	07-Jul-2026	-	N/A	N/A
	3,000,000	\$ 0.39	01-Feb-2027	-	N/A	N/A
	950,000	\$ 0.52	28-Mar-2028	-	N/A	N/A
Kevin Barnes	900,000	\$ 0.38	29-May-2029	-	N/A	N/A
	50,000	\$ 0.76	28-Feb-2021	-	N/A	N/A
	25,000	\$ 0.51	28-Sep-2021	-	N/A	N/A
	25,000	\$ 0.23	16-Feb-2022	2,788	N/A	N/A
	50,000	\$ 1.54	12-Jun-2020	-	N/A	N/A
	25,000	\$ 1.08	13-Aug-2020	-	N/A	N/A
	100,000	\$ 0.86	07-Jul-2026	-	N/A	N/A
	250,000	\$ 0.28	13-Jul-2027	18,269	N/A	N/A
	150,000	\$ 0.52	28-Mar-2028	-	N/A	N/A
	500,000	\$ 0.38	29-May-2029	-	N/A	N/A
Rajan Rajgopal	343,750	\$ 0.36	23-Jan-2027	3,966	N/A	N/A
	281,250	\$ 0.28	13-Jul-2027	20,553	N/A	N/A
	93,750	\$ 0.52	28-Mar-2028	-	N/A	N/A
Richard Zoccolillo	1,750,000	\$ 0.39	24-Sep-2028	-	N/A	N/A
	500,000	\$ 0.38	29-May-2029	-	N/A	N/A
Suresh Venkatesan	6,357,000	\$ 1.40	10-Jun-2020	-	N/A	N/A
	300,000	\$ 0.86	07-Jul-2026	-	N/A	N/A
	3,000,000	\$ 0.28	13-Jul-2027	219,231	N/A	N/A
	3,900,000	\$ 0.52	28-Mar-2028	-	N/A	N/A
Thomas Mika	4,500,000	\$ 0.38	29-May-2029	-	N/A	N/A
	1,000,000	\$ 0.62	02-Nov-2026	-	N/A	N/A
	500,000	\$ 0.385	16-Jan-2027	-	N/A	N/A
	1,000,000	\$ 0.28	13-Jul-2027	73,077	N/A	N/A
	950,000	\$ 0.52	28-Mar-2028	-	N/A	N/A
Vivek Rajgarhia	1,000,000	\$ 0.38	29-May-2029	-	N/A	N/A
	3,250,000	\$ 0.33	04-Nov-2029	112,500	N/A	N/A
Yong Lee	1,000,000	\$ 0.33	04-Nov-2029	34,615	N/A	N/A

(1) This amount is calculated based on the difference between the market value of the shares underlying the options as of December 31, 2019, being CAD \$0.375 (US\$0.29), and the exercise or base price of the option. The exchange rate used in these calculations to convert CAD to USD was 0.7682, being the closing exchange rate at December 31, 2019.

The value vested or earned during fiscal year 2019 of incentive plan awards granted to NEOs are as follows:

NEO Name	Option-Based Awards – Value	Share-Based Awards – Value Vested	Non-Equity Incentive Plan Compensation – Value Earned	
	Vested During the Year (1) (US\$)	During the Year (US\$)	During the Year (US\$)	
Richard Zoccolillo	-	N/A	N/A	
Kevin Barnes	3,606	N/A	N/A	
Suresh Venkatesan	43,269	N/A	N/A	
Thomas Mika	15,024	N/A	N/A	
Rajan Rajgopal	7,452	N/A	N/A	
David Lazovsky	3,606	N/A	N/A	

(1) This amount is the dollar value that would have been realized and is computed by obtaining the difference between the market price of the underlying securities on the vesting date and the exercise or base price of the options under the option-based award. For the named executive officers to realize this value, they would have had to exercise their options and sell the shares on the day of vesting. The exchange rates used in these calculations to convert CAD to USD were the rates applicable on the vesting dates.

## Director Compensation

The following table details compensation paid/accrued for fiscal year 2019 for each director who is not also an officer.

Name and Principal Position	Fiscal Year	Salary (cash) (2) (US\$)	Share-Based Awards (1) (US\$)	Options-Based Awards(1)(2)		Non-Equity Incentive Plan Compensation			All	Total
				No. of Shares	(US\$)	Annual Incentive	Long-term	Pension		
Don Listwin	2019	32,500	—	383,356	106,424	—	—	—	—	138,924
Chris Tsiofas	2019	47,500	—	440,653	125,519	—	—	—	—	173,019
Mohan Warrior	2019	30,000	—	360,534	102,697	—	—	—	—	132,697
Peter Charbonneau	2019	40,000	—	400,593	114,108	—	—	—	—	154,108
Jean-Louis Malinge	2019	30,000	—	360,534	102,697	—	—	—	—	132,697

(1) The Company used the Black-Scholes model as the methodology to calculate the grant date fair value. The fair value will be recorded as an operating expense as the stock options vest from the date of grant.

(2) The exchange rate used in these calculations to convert CAD to USD was the rate of exchange applicable on the date of grant.

The following table sets forth information concerning all awards outstanding under the stock option plans to each of the current Directors who are not also named executive officers as of December 31, 2019:

Name	Option-Based Awards			Share-Based Awards			
	No. of Shares Underlying Unexercised Shares	Option Exercise Price (CAD/share)	Option Expiration Date	Value of Unexercised in-the Money Options (1) (US\$)	Number of Shares or Units of Shares That Have Not Vested	Market or Payout Value of Share-Based Awards That Have Not Vested (US\$)	
Chris Tsiofas	300,000	\$ 1.54	12-Jun-2020	-	N/A	N/A	
	150,000	\$ 0.86	07-Jul-2026	-	N/A	N/A	
	687,500	\$ 0.28	13-Jul-2027	50,240	N/A	N/A	
	487,666	\$ 0.33	21-Jun-2028	16,881	N/A	N/A	
Don Listwin	440,653	\$ 0.38	29-May-2029	-	N/A	N/A	
	468,750	\$ 0.22	22-Jan-2028	55,889	N/A	N/A	
	399,000	\$ 0.33	21-Jun-2028	13,812	N/A	N/A	
	360,534	\$ 0.38	29-May-2029	-	N/A	N/A	
Jean-Louis Malinge	22,822	\$ 0.33	04-Nov-2029	790	N/A	N/A	
	525,000	\$ 0.30	05-Sep-2027	30,288	N/A	N/A	
	399,000	\$ 0.33	21-Jun-2028	13,812	N/A	N/A	
	360,534	\$ 0.38	29-May-2029	-	N/A	N/A	
Mohandas Warrior	250,000	\$ 1.54	12-Jun-2020	-	N/A	N/A	
	150,000	\$ 0.86	07-Jul-2026	-	N/A	N/A	
	562,500	\$ 0.28	13-Jul-2027	41,106	N/A	N/A	
	399,000	\$ 0.33	21-Jun-2028	13,812	N/A	N/A	
Peter Charbonneau	360,534	\$ 0.38	29-May-2029	-	N/A	N/A	
	154,730	\$ 0.52	28-Mar-2028	-	N/A	N/A	
	399,000	\$ 0.33	21-Jun-2028	13,812	N/A	N/A	
	400,593	\$ 0.38	29-May-2029	-	N/A	N/A	

(1) This amount is calculated based on the difference between the market value of the shares underlying the options as of December 31, 2019, being CAD \$0.375 (US\$0.29), and the exercise or base price of the option. The exchange rate used in these calculations to convert CAD to USD was 0.7682, being the closing exchange rate at December 31, 2019



The value vested or earned during fiscal year 2019 of incentive plan awards granted to Directors who are not also named executive officers are as follows:

Director Name	Option-Based Awards – Value Vested During the Year (1) (US\$)	Share-Based Awards – Value Vested During the Year (US\$)	Non-Equity Incentive Plan Compensation – Value Earned During the Year (US\$)
Peter Charbonneau	6,138	N/A	N/A
Jean-Louis Malinge	6,138	N/A	N/A
Chris Tsiofas	7,503	N/A	N/A
Don Listwin	12,449	N/A	N/A
Mohan Warrior	6,138	N/A	N/A

(1) This amount is the dollar value that would have been realized and is computed by obtaining the difference between the market price of the underlying securities on the vesting date and the exercise or base price of the options under the option-based award.

Termination and Change of Control Benefits

Other than disclosed below in “Written Management Agreements,” the Company has no plans or arrangements in respect of remuneration received or that may be received by the Officers the Company to compensate such Officers, in the event of termination of employment (as a result of resignation, retirement, change of control) or a change of responsibilities following a change of control.

#### Pension Plan Benefits

The Company does not provide a defined benefit plan to the Officers or any of its employees.

The Company offers a defined contribution plan that is a 401k Plan but does not contribute toward such plan. The Company does not have any deferred compensation plans other than that described above.

#### Written Management Agreements

The Company and/or its subsidiaries have employment contracts with the following current and former Officers as follows:

Dr. Venkatesan entered into an Executive Employment Agreement with an effective date of June 10, 2015 wherein (i) he will be paid US\$550,000 per year under at- will terms of employment; (ii) he will be eligible for annual and special bonuses as determined by the Board of Directors; (iii) he was granted 6,357,000 stock options vesting over 4 years; (iv) he became eligible for a signing bonus of US \$450,000 payable on the first anniversary of the effective date; (v) he will receive a severance of twelve months on termination of employment by the Company, other than for cause. Mr. Venkatesan agreed to a permanent reduction of his cash compensation by 20% effective October 2016, reducing his compensation from US\$550,000 to US\$440,000 per year.

Mr. Mika entered into an Executive Employment Agreement with an effective date of November 2, 2016 wherein (i) he will be paid US\$250,000 per year under at- will terms of employment (ii) he will be eligible for annual and special bonuses as determined by the Board of Directors; (iii) he was granted 1,000,000 stock options vesting over 4 years; (iv) he will receive an additional 500,000 stock options vesting over 4 years in Q1 2017 (v) he will be entitled to compensation of three months' salary on termination of employment by the Company, if termination is other than for cause. Mr. Mika's compensation was adjusted to US\$300,000 on May 1, 2018.

On July 1, 2016, Mr. Lazovsky entered into a Consulting Agreement with the Company to provide strategic, technological, integration and other general consulting services. For his services, Mr. Lazovsky was paid \$150,000 for the term from July 1, 2016 to December 31, 2016.

Mr. Lazovsky entered into an Executive Employment Agreement to provide services as the Executive Chairman of the Board, with an effective date of February 1, 2017. He will (i) be paid US\$200,000 per year under at-will terms of employment (ii) be eligible for annual and special bonuses as determined by the Board of Directors; (iii) granted 3,000,000 stock options vesting over 4 years; (iv) be entitled to compensation of six months' salary on termination prior to 2 years of employment by the Company, if termination is other than for cause. Mr. Lazovsky resigned as Executive Chairman of the Board on November 6, 2019.

Mr. Barnes had an arrangement with the Company to provide consulting services starting January 1, 2013 for a period of one year with an automatic one-year renewal. His consulting agreement was converted to an employment agreement and is paid CA\$190,000 annually.

Effective December 30, 2016, Mr. Rajan Rajgopal entered into an employment agreement with DenseLight to provide services as the President and General Manager of DenseLight. As per the agreement, Mr. Rajgopal will (i) be paid be paid US\$220,000 per year (ii) be eligible for annual and special bonuses as determined by the Board of Directors; (iii) be granted 500,000 stock options vesting over 4 years; (iv) be granted an additional 500,000 stock options no later than June 30, 2017 (v) be entitled to compensation of one month salary on termination of employment by the Company, if termination is other than for cause.

Effective September 10, 2018, Mr. Zocolillo entered into an employment agreement to provide services as the Senior Vice President Strategic Marketing and Product Management. As per the agreement, Mr. Zocolillo will (i) be paid be paid US\$250,000 per year (ii) be eligible for annual and special bonuses as determined by the Board of Directors; and (iii) be granted 1,750,000 stock options vesting over 4 years.

Mr. Rajgarhia entered into an Executive Employment Agreement with an effective date of November 4, 2019 wherein (i) he will be paid US\$365,000 per year under at- will terms of employment (ii) he will be eligible for annual and special bonuses as determined by the Board of Directors; (iii) he was granted 3,250,000 stock options vesting over 4 years.

Effective September 2, 2019, Mr. Lee entered into an employment agreement with POET Technologies Pte. Ltd. to provide services as the Vice President and General Manager of POET Technologies Pte. Ltd. As per the agreement, Mr. Lee will (i) be paid be paid US\$240,000 per year (ii) be eligible for annual and special bonuses as determined by the Board of Directors; (iii) be granted 1,000,000 stock options vesting over 4 years; (iv) be entitled to compensation of one month salary on termination of employment by the Company, if termination is other than for cause.

### C. Board Practices

Our Board of Directors currently consists of seven (7) directors including the CEO, of which, six (6) are independent directors. Each director holds office until the next annual general meeting of the Company or until his successor is elected or appointed, unless his office is earlier vacated in accordance with the Articles of Amalgamation and all amendments thereto (the "Articles"), or with the provisions of the OBCA. The Company's Officers are appointed to serve at the discretion of the Board, subject to the terms of the employment agreements described above.

The Board and committees of the Board schedule regular meetings over the course of the year.

During fiscal 2019, the Board held 12 regularly scheduled meetings, including committee meetings. If for various reasons, Board members may not be able to attend a Board meeting, all Board members are provided information related to each of the agenda items before each meeting, and, therefore, can provide counsel outside the confines of regularly scheduled meetings.

The Board has adopted standards for determining whether a director is independent from management. The Board reviews, consistent with the Company's corporate governance guidelines, whether a director has any material relationship with the Company that would impair the director's independent judgment. The Board has affirmatively determined, that as of the filing of this Form 20-F, based on its standards, that Messrs. Tsiofas, Malinge, Charbonneau, Listwin, Lazovsky and Warrior are independent.

#### Directors' Service Contracts

Mr. Venkatesan entered into an employment contract as explained above in "Written Management Agreements."

#### Audit and Compensation Committees of the Board of Directors

We currently have four board committees; (1) an Audit Committee; (2) a Compensation Committee, (3) a Strategy Committee and (4) a Corporate Governance and Nominating Committee. Committee charters can be found on the Company's website (poet-technologies.com). The names of the members and a summary of the terms of the charter for each the Audit Committee and the Compensation Committee is provided below.

#### Audit Committee

The Audit Committee is currently comprised of three members: Chris Tsiofas (Chair), Peter Charbonneau and Mohandas Warrior. All three members are independent directors of the Company. Mr. Tsiofas was appointed chair of the Audit Committee on August 21, 2012. The Board has determined that Mr. Tsiofas satisfies the criteria of "audit committee financial expert" within the meaning of Item 401(h) of Regulation S-K and is independent in accordance with Rule 4200 of the NASDAQ Marketplace Rules. All members of the audit committee are financially literate, meaning they have the ability to read and understand a set of financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and complexity of the issues that can reasonably be expected to be raised by the Company's financial statements.

The Audit Committee is responsible for reviewing the Company's financial reporting procedures, internal controls and the performance of the Company's external auditors. The Audit Committee is also responsible for reviewing the annual and quarterly financial statements and accompanying Management's Discussion and Analysis prior to their approval by the full Board. The Audit Committee also reviews the Company's financial controls with the auditors of the Company on an annual basis.

The Company's independent auditor is accountable to the Board and to the Audit Committee. The Board, through the Audit Committee, has the ultimate responsibility to evaluate the performance of the independent auditor, and through the shareholders, to appoint, replace and compensate the independent auditor. Any non-audit services must be pre-approved by the Audit Committee.

#### Compensation Committee

The Compensation Committee is currently comprised of three members: Don Listwin (Chair), Chris Tsiofas and David Lazovsky. Mr. Listwin was appointed chair of the Compensation Committee on August 8, 2019. All three members are independent directors. The Board has determined that all members of the Compensation Committee are qualified as members based on the following:

Mr. Don Listwin, Chairman of the Compensation Committee has over 30 years of technology investing and management experience, highlighted by a decade at Cisco Systems, where he served as its Executive Vice President. Mr. Listwin currently serves as chief executive officer of iSchema View and in the recent past served as chief executive officer of both Sana Security and Openwave Systems. Mr. Listwin also currently serves as a director on the boards of AwareX, Calix, Robin Systems and Teradici. Previously, he also served on the boards or was an advisor to JDS Uniphase, PLUMgrid, Redback Networks, E-TEK Dynamics, the Cellular Telecommunications & Internet Association (CTIA) and the Business Development Bank of Canada (BDC). In these capacities, Mr. Listwin had extensive direct experience with executive compensation matters as both a chief executive and board member of an assortment of companies, large and small, including companies within industries directly relevant to the Company.

Mr. Chris Tsiofas, CA, CPA, earned a Bachelor's of Commerce Degree from the University of Toronto and is a member of the Institute of Chartered Accountants of Canada and the Canadian Tax Foundation. He has been on the Board of Directors of the Company since August of 2012. Mr. Tsiofas is the president of MTN Chartered Professional Accountant Professional Corporation, a public accountancy firm. Tsiofas formerly served as Chairman of the Company's Compensation Committee and has directed past engagements with the Company's outside executive compensation consultants. Mr. Tsiofas is also the Chairman of the Audit Committee of the Board of Directors. He brings to the Compensation Committee specialized knowledge regarding the tax impact of certain compensation policies and practices on individuals and on the Company.

Mr. David E. Lazovsky is the founder of Intermolecular and served as that company's President and Chief Executive Officer and as a member of the board of directors from September 2004 to October 2014. Mr. Lazovsky has an in-depth knowledge of the semiconductor industry, technology and markets. Prior to founding Intermolecular, Mr. Lazovsky held several senior management positions at Applied Materials (NASDAQ: AMAT). From 1996 through August 2004, Mr. Lazovsky held management positions in the Metal Deposition and Thin Films Product Business Group where he was responsible for managing more than \$1 billion in Applied Materials' semiconductor manufacturing equipment business. Mr. Lazovsky holds a B.S. in mechanical engineering from Ohio University and, as of March 31, 2014, held 41 pending or issued U.S. patents.

The Compensation Committee has extensive direct relevant experience in determining executive compensation policies and practices on behalf of the Company. In addition to being supported by outside compensation consultants on a periodic basis for peer group review, the members of the Committee are professional executives familiar with best practices associated with executive compensation, are knowledgeable about the tax implications to the Company and its executive officers of changes in the tax laws pertaining to executive compensation and have direct relevant experience with the incentives used throughout the Company's industry to align the interests of executive management with company and shareholder interests. This gives these individuals strong insight as to the incentive structures and programs appropriate for companies of a comparable size. The seniority, experience and level of achievement of the three current members of the Compensation Committee speak to the independent judgement exercised in making decisions about the suitability of the Company's compensation policies and practices.

The Compensation Committee discusses and makes recommendations to the Board for approval of compensation issues that pertain to the senior executives of the Company, and on issues involving employment company-wide compensation policies and practices. In general, the compensation programs of the Company are designed to reward performance and to be competitive with the compensation agreements of other comparable semiconductor companies. The Compensation Committee is responsible for evaluating the compensation of the senior management of the Company and assuring that they are compensated effectively in a manner consistent with the Company's business, stage of development, financial condition and prospects, and the competitive environment. Specifically, the Compensation Committee is responsible for: (i) reviewing the compensation practices and policies of the Company to ensure that they are competitive and that they provide appropriate motivation for corporate performance and increased shareholder value; (ii) overseeing the administration of the Company's compensation programs, and reviewing and approving the employees who receive compensation and the nature of the compensation provided under such programs, and ensuring that all management compensation programs are linked to meaningful and measurable performance targets; (iii) making recommendations to the Board regarding the adoption, amendment or termination of compensation programs and the approval of the adoption, amendment and termination of compensation programs of the Company, including for greater certainty, ensuring that if any equity-based compensation plan is subject to shareholder approval, and that such approval is sought; (iv) periodically surveying the executive compensation practices of other comparable companies; (v) establishing and ensuring the satisfaction of performance goals for performance-based compensation; (vi) annually reviewing and approving the annual base salary and bonus targets for the senior executives of the Company, other than the Chief Executive Officer (the "CEO"); (vii) reviewing and approving annual corporate goals and objectives for the CEO and evaluating the CEO's performance against such goals and objectives; (viii) annually reviewing and approving, based on the Compensation Committee's evaluation of the CEO, the CEO's annual base salary, the CEO's bonus, and any stock option grants and other awards to the CEO under the Company's compensation programs (in determining the CEO's compensation, the Compensation Committee will consider the Company's performance and relative shareholder return, the compensation of CEOs at other companies, and the CEO's compensation in past years); and (ix) reviewing the annual report on executive compensation required to be prepared under applicable corporate and securities legislation and regulation including the disclosure concerning members of the Compensation Committee and settling the reports required to be made by the Compensation Committee in any document required to be filed with a regulatory authority and/or distributed to shareholders.

In 2016, the Compensation Committee contracted with Compensia to perform an executive compensation review (the "Review") of certain senior positions within the then-current executive management team. Base salaries and annual and long-term incentives were benchmarked against a group of public companies in the communications equipment, semiconductor, and electronic component industries. The data provided was one of the elements considered by the Compensation Committee, with adjustments made for the differences in stage of development, revenues, profitability and other characteristics that distinguished the Company from the benchmarks.

The benchmarks comprised the following companies: Alliance Fiber Optic Product, Amtech Systems, Applied Optoelectronics, Clearfield, CyberOptics, Dynasil, EMCORE, Exar, GigPeak, GSI Technology, Intermolecular, LightPath Technologies, Micropac Industries, Nanometrics, PDF Solutions, QuickLogic and Ultratech. The data came from each company's public filings available as of April 2016. The positions benchmarked were CEO, COO, CTO, VP-Product Development and VP-Design Enablement. Due to cost and relevance, the Company elected not to repeat the Review with Compensia for its consideration of executive compensation for fiscal years subsequent to December 31, 2016.

#### Code of Ethics

The Board has adopted a written code of business conduct and ethics. All transgressions of the code of business conduct and ethics are required to be promptly reported to the Chair of the Board or of any committee, who in turn, reports them to the Corporate Governance and Nominating Committee. The Corporate Governance and Nominating Committee is charged with investigating alleged violations of the code of business conduct and ethics. Any findings of the Corporate Governance and Nominating Committee are then reported to the full Board, which will take such action as it deems appropriate. The Company's Code of Ethics may be inspected on the Company's website ([poet-technologies.com](http://poet-technologies.com)) and is filed as an Exhibit to this Annual Report.

#### D. Employees

As of December 31, 2019, the Company had sixteen (16) full-time employees, one (1) part-time employee and three (3) consultants, including one (1) in a senior management position. Eight (8) employees and one (1) consultant work at our lab facility either as support staff or are engaged in research and development initiatives; two (2) employees and one (1) consultant are employed at the Canadian office; Seven (7) employees are employed at our fabrication facility in Singapore. None of the Company's employees are covered by collective bargaining agreements.

As of December 31, 2018, the Company had ninety-nine (99) full-time employees and four (4) consultants, including one (1) in a senior management position. Seven (7) employees and one (1) consultant work at our lab facility either as support staff or are engaged in research and development initiatives; one (1) employee and three (3) consultants are employed at the Canadian office; ninety-one (91) employees are employed at our fabrication facility in Singapore. None of the Company's employees are covered by collective bargaining agreements.

As of December 31, 2017, the Company had sixty-eight (68) full-time employees and five (5) consultants, including senior management. Five (5) employees and one (1) consultant worked at our lab facility either as support staff or were engaged in research and development initiatives; One (1) employee and three (3) consultants were employed at the Canadian office; sixty-three (63) employees were employed at our fabrication facility in Singapore. None of the Company's employees were covered by collective bargaining agreements.

#### E. Share Ownership

The following table sets forth certain information regarding the beneficial ownership of our outstanding common shares for: (i) each of our Directors and Officers individually; (ii) all of our Directors and Officers as a group; and (iii) each other person known to us to own beneficially more than 5% of our common shares as of April 22, 2020. Beneficial ownership of shares is determined under rules of the SEC and generally includes any shares over which a person exercises sole or shared voting or investment power. The table also includes the number of shares underlying options that are exercisable within sixty (60) days of April 22, 2020. Ordinary shares subject to these options are deemed to be outstanding for the purpose of computing the ownership percentage of the person holding these options, but are not deemed to be outstanding for the purpose of computing the ownership percentage of any other person.

The shareholders listed below do not have any different voting rights from our other shareholders.

	Number of Shares Beneficially Owned (1)	Percent of Class
<b>Directors and Officers:</b>		
Chris Tsiofas	25,000	0%
Thomas Mika	100,000	0%
Kevin Barnes	17,463	0%
David Lazovsky	181,000	0%
Suresh Venkatesan	115,000	0%
Don Listwin	632,250	0%
<b>Directors and Officers Subtotal</b>	<b>1,070,713</b>	<b>0.36%</b>
<b>Major Shareholders:</b>		
None that we are aware of.		

(1) The number of shares set forth for each Director, Officer and Major Shareholder is determined in accordance with Rule 13d-3 of the General Rules and Regulations under the Exchange Act.

See "ITEM 6.B. Compensation" for the exercise prices of options.

	Number of Options exercisable within 60 days	Percent of class
Kevin Barnes	484,375	0.92%
Peter Charbonneau	854,175	1.62%
David Lazovsky	3,071,875	5.85%
Don Listwin	1,149,562	2.19%
Jean- Louis Malinge	1,194,401	2.27%
Thomas Mika	2,228,125	4.24%
Chris Tsiofas	1,936,906	3.69%
Suresh Venkatesan	10,200,750	19.45%
Mohandas Warrior	1,613,151	3.07%
Richard Zoccolillo	546,875	1.04%
	<b>24,008,945</b>	<b>45.78%</b>

	Number of Warrants exercisable within 60 days	Exercise price CA\$	Percent of class
Suresh Venkatesan	37,500	0.52	0%
David Lazovsky	90,500	0.52	0%
	<b>128,000</b>		<b>0.002%</b>

ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS

A. Major Shareholders

Holdings by Major Shareholders

Please refer to ITEM 6.E. "Share Ownership" for details regarding securities held by Directors, Officers and Major Shareholders. The Company's major shareholders do not have any different or special voting rights.

U.S. Share Ownership

As of April 22, 2020, there were a total of 445 holders of record of our common shares with addresses in the U.S. We believe that the number of U.S. beneficial owners is substantially greater than the number of U.S. record holders, because a large portion of our common shares are held in broker "street names." As of April 22, 2020, U.S. holders of record held approximately 0.65% of our outstanding common shares.

Control of Company

The Company is a publicly owned Ontario corporation, the shares of which are owned by Canadian residents, U.S. residents and other foreign residents. The Company is not controlled by any foreign government or other person(s) except as described in ITEM 4.A. "History and Progress of the Company" and ITEM 6.E. "Share Ownership."

Change of Control of Company Arrangements

None

B. Major Shareholders and Related Party Transactions

No shareholder beneficially owns 5% or more of the Company's common shares.

Compensation to key management personnel (Executive Chairman, CEO, CFO, President and General Manager of POET and POET Technologies Pte Ltd) was as follows:

	2019	2018	2017
<b>Salaries</b>	\$ 1,251,277	\$ 1,216,250	\$ 932,133
<b>Share-based payments (1)</b>	2,135,579	2,449,683	2,110,773
<b>Total</b>	\$ 3,386,856	\$ 3,665,933	\$ 3,042,906

(1) Share-based payments are the fair value of options granted to key management personnel and expensed during the various years as calculated using the Black-Scholes model.

C. Interests of Experts and Counsel

Not applicable.



ITEM 8. FINANCIAL INFORMATION

A. Consolidated Statements and Other Financial Information

The Company's financial statements are stated in U.S. dollars and are prepared in accordance with IFRS as issued by the IASB.

The financial statements as required under "ITEM 17. Financial Statements" are attached hereto and found immediately following the text of this Annual Report. The audit report of Marcum LLP, independent registered public accounting firm, is included herein immediately preceding the consolidated financial statements.

Legal Proceedings

The directors and the senior management of the Company do not know of any material, either active or pending, legal proceedings against them, nor is the Company involved as a plaintiff in any material proceeding or pending litigation.

The directors and the senior management of the Company know of no active or pending proceedings against anyone that might materially adversely affect an interest in the Company.

Dividend Policy

The Company has not paid, and has no current plans to pay, dividends on its common shares. We currently intend to retain future earnings, if any, to finance the development of our business. Any future dividend policy will be determined by the Board, and will depend upon, among other factors, our earnings, if any, financial condition, capital requirements, any contractual restrictions with respect to the payment of dividends, the impact of the distribution of dividends on our financial condition, tax liabilities, and such economic and other conditions as the Board may deem relevant.

## B. Significant Changes

On February 14, 2020 and March 30, 2020 the Company collected \$4,750,000 and \$8,250,000 respectively for a cumulative \$13,000,000 representing two tranches of an agreed three tranche payment plan for the outstanding balance due from DL Shanghai from the sale of DenseLight. The Company collected an additional \$2,000,000 which was immediately paid to Oak Capital on behalf of the DL Shanghai for due diligence, legal and other expenses.

## ITEM 9. THE OFFER AND LISTING

### A. Offer and Listing Details

The Company's common shares began trading on the TSXV in Toronto, Ontario, Canada, on June 25, 2007. The current Stock symbol is "PTK". The CUSIP/ISN numbers are 73044W104 / 73044W1041.

The following table lists the high and low sales price on the TSXV for the Company's common shares for: the last six months; the last ten fiscal quarters; and the last five fiscal years.

Period Ended	High (CA\$)	Low (CA\$)
<b>MONTHLY</b>		
March 31, 2020	0.56	0.25
February 28, 2020	0.54	0.365
January 31, 2020	0.415	0.365
December 31, 2019	0.435	0.31
November 30, 2019	0.34	0.245
October 31, 2019	0.345	0.30
<b>QUARTERLY</b>		
March 31, 2020	0.56	0.25
December 31, 2019	0.44	0.30
September 30, 2019	0.46	0.30
June 30, 2019	0.42	0.31
March 31, 2019	0.46	0.27
December 31, 2018	0.40	0.24
September 30, 2018	0.44	0.23
June 30, 2018	0.44	0.27
March 31, 2018	0.79	0.19
December 31, 2017	0.36	0.28
<b>YEARLY</b>		
December 31, 2019	0.46	0.27
December 31, 2018	0.79	0.19
December 31, 2017	0.51	0.17
December 31, 2016	1.44	0.27
December 31, 2015	2.00	0.62

### B. Plan of Distribution

Not Required.

### C. Markets

The Company's common shares trade on the TSXV in Canada under the symbol "PTK". The Company's common shares also trade on the OTCQX International Marketplace under the symbol "POETF".

### D. Selling Shareholders

Not Required.

E. Dilution

Not Required.

F. Expenses of the Issue

Not Required.

ITEM 10. ADDITIONAL INFORMATION

A. Share Capital

Not Required.

B. Memorandum and articles of association

The Company was originally formed under the British Columbia Company Act on February 9, 1972 as Tandem Resources Ltd. ("Tandem"). The Company took its current form after Tandem amalgamated with Stanmar Resources Ltd. and Keezie Resources Ltd. pursuant to Articles of Amalgamation on November 14, 1985. Tandem moved to Ontario by Articles of Continuance on January 3, 1997. Tandem changed its name to OPEL International Inc. by Articles of Amendment on September 26, 2006. OPEL International Inc. was continued under the New Brunswick Business Corporations Act on January 30, 2007, then back to Ontario by Articles of Continuance on November 30, 2010, changing its name to OPEL Solar International Inc. By Articles of Amendment on August 25, 2011, OPEL Solar International Inc. changed its name to OPEL Technologies, Inc. By Articles of Amendment on July 23, 2013, OPEL Technologies Inc. changed its name to POET Technologies Inc. Today, the Company is an Ontario corporation governed by the OBCA. The following are summaries of material provisions of our Articles of Continuance, as amended from time to time (the "Articles"), in effect as of the date of this Annual Report insofar as they relate to the material terms of our ordinary shares.

Register, Entry Number and Purposes

Our Articles of Continuance became effective on November 30, 2010. Our corporation number in Ontario is 641402. The Articles of Continuance do not contain a statement of the Company's objects and purposes. However, the Articles of Continuance provide that there are no restrictions on business that the Company may carry on or the powers the Company may exercise as permitted under the OBCA.

Board of Directors

Pursuant to our By-laws and the OBCA, a director or officer who is a party to, or who is a director or officer of, or has a material interest in, any person who is a party to, a material contract or proposed material contract with the Company, shall disclose the nature and extent of his interest at the time and in the manner provided by the OBCA. Any such contract or proposed contract shall be referred to the Board or shareholders for approval even if such contract is one that in the ordinary course of the Company's business would not require approval by the Board or shareholders, and a director interested in a contract so referred to the Board shall not vote on any resolution to approve the same unless the contract or transaction: (i) relates primarily to his or her remuneration as a director of the Company or an affiliate; (ii) is for indemnity or insurance of or for the director or officer as permitted by the OBCA; or (iii) is with an affiliate.

Directors shall be paid such remuneration for their services as the Board may determine by resolution from time to time, and will be entitled to reimbursement for traveling and other expenses properly incurred by them in attending meetings of the Board or any committee thereof. Neither the Company's Articles nor By-laws require an independent quorum for voting on director compensation. Directors are not precluded from serving the Company in any other capacity and receiving remuneration therefor. A director is not required to hold shares of the Company. There is no age limit requirement respecting the retirement or non-retirement of directors.

The directors may sign the name and on behalf of the Company, or appoint any officer or officers or any other person or persons on behalf of the Corporation either to sign on behalf of the Company, all instruments in writing and any instruments in writing so signed shall be binding upon the Company without further authorization or formality. The term "instruments in writing" includes contracts, documents, powers of attorney, deeds, mortgages, hypothecs, charges, conveyances, transfers and assignments of property (real or personal, immovable or movable), agreements, tenders, releases, receipts and discharges for the payment of money or other obligations, conveyances, transfers and assignments of shares, stocks, bonds, debentures or other securities, instruments of proxy and all paper writing.

Nothing in the Company's By-laws limits or restricts the borrowing of money by the Company on bills of exchange or promissory notes made, drawn, accepted or endorsed by or on behalf of the Company.

#### Rights, Preferences and Restrictions Attaching to Common Shares

The holders of common shares are entitled to vote at all meetings of the shareholders, except meetings at which only holders of a specified class of shares are entitled to vote. Each common share carries with it the right to one vote. Subject to the rights, privileges, restrictions and conditions attaching to any other class or series of shares of the Company, the holders of the common shares are entitled to receive any dividends declared and payable by the Company on the common shares. Dividends may be paid in money or property or by issuing fully paid shares of the Company. Subject to the rights, privileges, restrictions and conditions attaching to any other class or series of shares of the Company, the holders of the common shares are entitled to receive the remaining property of the Company upon dissolution.

No shares have been issued subject to call or assessment. There are no pre-emptive or conversion rights and no provisions for redemption or purchase for cancellation, surrender, or sinking or purchase funds. The common shares must be issued as fully-paid and non-assessable, and are not subject to further capital calls by the Company. The common shares are without par value. All of the common shares rank equally as to voting rights, participation in a distribution of the assets of the Company on a liquidation, dissolution or winding-up of the Company and the entitlement to dividends.

The Company does not currently have any preferred shares outstanding.

#### Ordinary and Special Shareholders' Meetings

The OBCA provides that the directors of a corporation shall call an annual meeting of shareholders not later than 15 months after holding the last preceding annual meeting. The OBCA also provides that, in the case of an offering corporation, the directors shall place before each annual meeting of shareholders, the financial statements required to be filed under the Ontario Securities Act and the regulation thereunder relating to the period that began immediately after the end of the last completed financial year and ended not more than six months before the annual meeting and the immediately preceding financial year, if any.

The Board has the power to call a special meeting of shareholders at any time.

Notice of the date, time and location of each meeting of shareholders must be given not less than 21 days or more than 50 days before the date of each meeting to each director, to the auditor of the Company and to each shareholder who at the close of business on the record date for notice is entered in the securities register as the holder of one or more shares carrying the right to vote at the meeting.

Notice of a meeting of shareholders called for any other purpose other than consideration of the minutes of an earlier meeting, financial statements, reports of the directors or auditor, setting or changing the number of directors, the election of directors and reappointment of the incumbent auditor, must state the general nature of the special business in sufficient detail to permit the shareholder to form a reasoned judgment on such business, must state the text of any special resolution to be submitted to the meeting, and must, if the special business includes considering, approving, ratifying, adopting or authorizing any document or the signing of or giving of effect to any document, have attached to it, a copy of the document or state that a copy of the document will be available for inspection by shareholders at the Company's records office or another accessible location.

The only persons entitled to be present at a meeting of shareholders are those entitled to vote, the directors of the Company and the auditor of the Company. Any other person may be admitted only on the invitation of the chairman of the meeting or with the consent of the meeting. In circumstances where a court orders a meeting of shareholders, the court may direct how the meeting may be held, including who may attend the meeting.

#### Limitations on Rights to Own Securities

No share may be issued until it is fully paid.

Neither Canadian law nor our Articles or By-laws limit the right of a non-resident to hold or vote common shares of the Company, other than as provided in the Investment Canada Act (the "Investment Act"), as amended by the World Trade Organization Agreement Implementation Act (the "WTOA Act"). The Investment Act generally prohibits implementation of a direct reviewable investment by an individual, government or agency thereof, corporation, partnership, trust or joint venture that is not a "Canadian," as defined in the Investment Act (a "non-Canadian"), unless, after review, the minister responsible for the Investment Act is satisfied that the investment is likely to be of net benefit to Canada. An investment in the common shares of the Company by a non-Canadian (other than a "WTO Investor," as defined below) would be reviewable under the Investment Act if it were an investment to acquire direct control of the Company, and the value of the assets of the Company were CA\$5.0 million or more (provided that immediately prior to the implementation of the investment the Company was not controlled by WTO Investors). An investment in common shares of the Company by a WTO Investor (or by a non-Canadian other than a WTO Investor if, immediately prior to the implementation of the investment the Company was controlled by WTO Investors) would be reviewable under the Investment Act if it were an investment to acquire direct control of the Company and the value of the assets of the Company equaled or exceeded certain threshold amounts determined on an annual basis.

The threshold for a pre-closing net benefit review depends on whether the purchaser is: (a) controlled by a person or entity from a member of the WTO; (b) a state-owned enterprise (SOE); or (c) from a country considered a "Trade Agreement Investor" under the Investment Act. A different threshold also applies if the Canadian business carries on a cultural business. The 2020 threshold for WTO investors that are SOEs will be \$428 million based on the book value of the Canadian business' assets, up from \$416 million in 2019. The 2020 thresholds for review for direct acquisitions of control of Canadian businesses by private sector investor WTO investors (\$1 billion) and private sector trade-agreement investors (\$1.5 billion) remain the same and are both based on the "enterprise value" of the Canadian business being acquired.

A non-Canadian, whether a WTO Investor or otherwise, would be deemed to acquire control of the Company for purposes of the Investment Act if he or she acquired a majority of the common shares of the Company. The acquisition of less than a majority, but at least one-third of the shares, would be presumed to be an acquisition of control of the Company, unless it could be established that the Company is not controlled in fact by the acquirer through the ownership of the shares. In general, an individual is a WTO Investor if he or she is a "national" of a country (other than Canada) that is a member of the WTO ("WTO Member") or has a right of permanent residence in a WTO Member. A corporation or other entity will be a "WTO Investor" if it is a "WTO Investor-controlled entity," pursuant to detailed rules set out in the Investment Act. The U.S. is a WTO Member. Certain transactions involving our common shares would be exempt from the Investment Act, including:

- an acquisition of the shares if the acquisition were made in the ordinary course of that person's business as a trader or dealer in securities;
- an acquisition of control of the Company in connection with the realization of a security interest granted for a loan or other financial assistance and not for any purpose related to the provisions of the Investment Act; and
- an acquisition of control of the Company by reason of an amalgamation, merger, consolidation or corporate reorganization, following which the ultimate direct or indirect control in fact of the Company, through the ownership of voting interests, remains unchanged.

#### Procedures to Change the Rights of Shareholders

In order to change the rights of our shareholders with respect to certain fundamental changes as described in Section 168 of the OBCA, the Company would need to amend our Articles to effect the change. Such an amendment would require the approval of holders of two-thirds of the votes of the Company's common shares, and any other shares carrying the right to vote at any general meeting of the shareholders of the Company, cast at a duly called special meeting. The OBCA also provides that a sale, lease or exchange of all or substantially all of the property of a corporation other than in the ordinary course of business of the corporation likewise requires the approval of the shareholders at a duly called special meeting. For such fundamental changes and sale, lease and exchange, a shareholder is entitled under the OBCA to dissent in respect of such a resolution amending the Articles and, if the resolution is adopted and the Company implements such changes, demand payment of the fair value of the shareholder's common shares.

#### Impediments to Change of Control

In 2016, the Canadian Securities Administrators (the "CSA") enacted amendments (the "Bid Amendments") to the Take-Over Bid Regime. The Bid Amendments, which are very significant, are contained in National Instrument (NI) 62-104.

The Bid Amendments were intended to enhance the quality and integrity of the take-over bid regime and rebalance the current dynamics among offerors, offeree issuer boards of directors ("Offeree Boards"), and offeree issuer security holders by (i) facilitating the ability of offeree issuer security holders to make voluntary, informed and coordinated tender decisions, and (ii) providing the Offeree Board with additional time and discretion when responding to a take-over bid.

Specifically, the Bid Amendments require that all non-exempt take-over bids

- (1) receive tenders of more than 50% of the outstanding securities of the class that are subject to the bid, excluding securities beneficially owned, or over which control or direction is exercised, by the offeror or by any person acting jointly or in concert with the offeror (the Minimum Tender Requirement);
- (2) be extended by the offeror for an additional 10 days after the Minimum Tender Requirement has been achieved and all other terms and conditions of the bid have been complied with or waived (the 10 Day Extension Requirement); and

(3) remain open for a minimum deposit period of 105 days (the Minimum 105 Day Bid Period) unless

(a) the offeree board states in a news release a shorter deposit period for the bid of not less than 35 days, in which case all contemporaneous take-over bids must remain open for at least the stated shorter deposit period, or

(b) the issuer issues a news release that it intends to effect, pursuant to an agreement or otherwise, a specified alternative transaction, in which case all contemporaneous take-over bids must remain open for a deposit period of at least 35 days.

The Bid Amendments involved fundamental changes to the bid regime to establish a majority acceptance standard for all non-exempt take-over bids, a mandatory extension period to alleviate offeree security holder coercion concerns, and a 105 day minimum deposit period to address concerns that offeree boards did not have enough time to respond to an unsolicited take-over bid. The CSA determined not to amend National Policy 62-202 Defensive Tactics (NP 62-202) in connection with these amendments. They reminded participants in the capital markets of the continued applicability of NP 62-202, which means that securities regulators will be prepared to examine the actions of offeree boards in specific cases, and in light of the amended bid regime, to determine whether they are abusive of security holder rights.

After canvassing several commentaries concerning the new regime, we have concluded that:

- It will be much more difficult for hostile bidders as a result of target issuers having a much longer period of time to respond, concurrent with the added risk and cost to such bidders.
- There is good reason to expect that, except in unusual circumstances, regulators will not permit SRPs to remain in effect after a 105 day bidding period.
- A significant number of reporting issuers have not sought re-approval of their SRPs since the amendments were introduced and those that have sought to renew their SRPs have been required to amend the plans to comply with the new rules.
- A large part of the traditional rationale for adopting SRPs has now been eliminated.

We believe that the amended take-over bid rules provide adequate protection against hostile bids. Having said that, it has been suggested that the new rules do not protect against creeping take-over bids for control which are exempt from the rules (such as the accumulation of 20% or more of the issuer's shares through market transactions or the acquisition of a control block through private agreements with a few large shareholders). These activities would however be identifiable through the early warning filing requirements. If, prior to making a determination that the Company ought to adopt a "strategic" SRP at an annual or special meeting of shareholders, the Company were faced with a hostile bid that we believed was not in the best interests of the Company and its shareholders, the directors could adopt a "tactical" plan which we could take to the shareholders for approval. Nevertheless, at this point in time, we are of the opinion that such action is not necessary and the shareholders should be the best arbiters of when "the pill must go".

#### Stockholder Ownership Disclosure Threshold in Bylaws

Neither our Articles nor By-laws contain a provision governing the ownership threshold above which shareholder ownership must be disclosed. Pursuant to securities legislation, an Early Warning Report and an Insider Report must be filed if a shareholder obtains ownership on a partially diluted basis of 10% or greater of the Company.

#### Special Conditions for Changes in Capital

The conditions imposed by the Company's Articles are not more stringent than required under the OBCA.

#### C. Material Contracts

In addition to any contracts described in "ITEM 7.B. Related Party Transactions" or "ITEM 4. Business Overview", below is a summary of material contracts, other than those entered into by the Company in the ordinary course of business, to which we are or have been a party during the two years immediately preceding the date of this document. Other than contracts entered into in the ordinary course of business, we have not been a party to any other material contract within such two-year period.

1. On May 11, 2016 the Company acquired all the issued and outstanding shares of DenseLight Semiconductor Pte. Ltd. in an all-stock acquisition for \$10,500,000 satisfied through the issuance of 13,611,150 common shares.
2. On June 22, 2016, the Company acquired all the issued and outstanding shares of BB Photonics, a New Jersey company and its subsidiary BB Photonics UK Ltd, collectively BB Photonics, a designer of integrated photonic solutions for the data communications market for consideration of \$1,550,000. The all-stock purchase was accomplished with the issuance of 1,996,090 common share of the Company at a price of \$0.777 per share.
3. On October 19, 2016, the Company announced that it had entered into an agreement with Singapore's Economic Development Board (EDB) to expand the Company's research and development operations in Singapore. Under this agreement, the Company is eligible to receive support up to a maximum of S\$10.7 million (US\$7.7 million) over five years subject to certain expenditure, capital acquisition and head count thresholds.
4. On April 18, 2019, the Company signed loan and security agreements for a senior secured credit facility (the "Bridge Loan") to be provided by Espresso Capital Ltd which grants the Company access to a maximum US\$5,000,000. On April 23, 2019 the Company received the initial advance against the credit facility in the amount of US\$2,000,000. In partial consideration of the US\$5,000,000 gross credit facility available to the Company, and in connection with the initial advance, the Company issued to Espresso Capital warrants for the purchase of 3,289,500 common shares at a price of C\$0.35 per share. The Warrants expire on April 18, 2020.
5. On August 20, 2019, the Company signed a definitive agreement with respect to the sale of DenseLight for \$26,000,000. The Share Sale Agreement was signed on November 8, 2019 when the sale was consummated.

#### D. Exchange Controls

Canada has no system of exchange controls. There are no Canadian restrictions on the repatriation of capital or earnings of a Canadian public company to non-resident investors. There are no laws in Canada or exchange restrictions affecting the remittance of dividends, profits, interest, royalties and other payments to non-resident holders of the Company's securities, except as discussed in "ITEM 10.E. Taxation" below.

#### E. Taxation

##### Canadian Federal Income Tax Considerations

The Company believes the following is a brief summary of the material principal Canadian federal income tax consequences to a U.S. Holder (as defined below) of common shares of the Company who deals at arm's length with the Company, holds the shares as capital property and who, for the purposes of the Income Tax Act (Canada) (the "Tax Act") and the Canada — U.S. Income Tax Convention (1980) (the "Treaty"), is at all relevant times resident in the U.S., is not and is not deemed to be resident in Canada and does not use or hold and is not deemed to use or hold the shares in carrying on a business in Canada. Special rules, which are not discussed below, may apply to a U.S. Holder that is an insurer that carries on business in Canada and elsewhere. U.S. Holders are urged to consult their own tax advisors with respect to their particular circumstances.

This summary is based upon the current provisions of the Tax Act, the regulations thereunder in force at the date hereof, all specific proposals to amend such regulations and the Tax Act publicly announced by or on behalf of the Minister of Finance (Canada) prior to the date hereof and the current provisions of the Convention and the current administrative practices of the Canada Revenue Agency published in writing prior to the date hereof. This summary does not otherwise take into account or anticipate any changes in law or administrative practices whether by legislative, governmental or judicial decision or action, nor does it take into account tax laws of any province or territory of Canada or of the U.S. or of any other jurisdiction outside Canada.



For the purposes of the Tax Act, all amounts relating to the acquisition, holding or disposition of the common shares must be converted into Canadian dollars based on the relevant exchange rate applicable thereto.

This summary does not address all aspects of Canadian federal income taxation that may be relevant to any particular U.S. Holder in light of such holder's individual circumstances. Accordingly, U.S. Holders should consult with their own tax advisors for advice with respect to their own particular circumstances.

Under the Tax Act and the Treaty, a U.S. Holder of common shares will generally be subject to a 15% withholding tax on dividends paid or credited or deemed by the Tax Act to have been paid or credited on such shares. The withholding tax rate is 5% where the U.S. Holder is a corporation that beneficially owns at least 10% of the voting shares of the Company and the dividends may be exempt from such withholding in the case of some U.S. Holders such as qualifying pension funds and charities.

A U.S. Holder will generally not be subject to tax under the Tax Act on any capital gain realized on a disposition of common shares, provided that the shares do not constitute "taxable Canadian property" to the U.S. Holder at the time of disposition. Generally, common shares will not constitute taxable Canadian property to a U.S. Holder provided that such shares are listed on a designated stock exchange (which currently includes the TSXV) at the time of the disposition and, during the 60- month period immediately preceding the disposition, the U.S. Holder, persons with whom the U.S. Holder does not deal at arm's length, or the U.S. Holder together with all such persons has not owned 25% or more of the issued shares of any series or class of the Company's capital stock. If the common shares constitute taxable Canadian property to a particular U.S. Holder, any capital gain arising on their disposition may be exempt from Canadian tax under the Convention if at the time of disposition the common shares do not derive their value principally from real property situated in Canada.

#### U.S. Federal Income Tax Considerations

Subject to the limitations described herein, the following discussion summarizes certain U.S. federal income tax consequences to a U.S. Holder of our common shares. A "U.S. Holder" means a holder of our common shares who is:

- an individual who is a citizen or resident of the U.S. for U.S. federal income tax purposes;
- a corporation (or other entity taxable as a corporation for U.S. federal income tax purposes) created or organized in the U.S. or under the laws of the U.S. or any political subdivision thereof, or the District of Columbia;
- an estate, the income of which is subject to U.S. federal income tax regardless of its source; or
- a trust (i) if, in general, a court within the U.S. is able to exercise primary supervision over its administration and one or more U.S. persons have the authority to control all of its substantial decisions, or (ii) that has in effect a valid election under applicable U.S. Treasury Regulations to be treated as a U.S. person.

Unless otherwise specifically indicated, this discussion does not consider the U.S. tax consequences to a person that is not a U.S. Holder (a "Non-U.S. Holder"). This discussion considers only U.S. Holders that will own our common shares as capital assets (generally, for investment) and does not purport to be a comprehensive description of all of the tax considerations that may be relevant to each U.S. Holder's decision to purchase our common shares.

This discussion is based on current provisions of the Internal Revenue Code of 1986, as amended (the "Code"), current and proposed Treasury Regulations promulgated thereunder, and administrative and judicial decisions as of the date hereof, all of which are subject to change, possibly on a retroactive basis. This discussion does not address all aspects of U.S. federal income taxation that may be relevant to any particular U.S. Holder in light of such holder's individual circumstances. In particular, this discussion does not address the potential application of the alternative minimum tax or the U.S. federal income tax consequences to U.S. Holders that are subject to special treatment, including U.S. Holders that:

- are broker-dealers or insurance companies;
- have elected market-to-market accounting;
- are tax-exempt organizations or retirement plans;
- are financial institutions or "financial services entities";
- hold our common shares as part of a straddle, "hedge" or "conversion transaction" with other investments;
- acquired our common shares upon the exercise of employee stock options or otherwise as compensation;
- own directly, indirectly or by attribution at least 10% of our voting power;
- have a functional currency that is not the U.S. Dollar;
- are grantor trusts;
- are certain former citizens or long-term residents of the U.S.; or
- are real estate trusts or regulated investment companies.

If a partnership (or any other entity treated as a partnership for U.S. federal income tax purposes) holds our common shares, the tax treatment of the partnership and a partner in such partnership will generally depend on the status of the partner and the activities of the partnership. Such a partner or partnership should consult its own tax advisor as to its tax consequences.

In addition, this discussion does not address any aspect of state, local or non-U.S. laws or the possible application of U.S. federal gift or estate taxes.

Each potential U.S. Holder of our common shares is advised to consult its own tax advisor with respect to the specific tax consequences to it of purchasing, holding or disposing of our common shares, including the applicability and effect of federal, state, local and foreign income tax and other laws to its particular circumstances.

#### Distributions

Subject to the discussion below under "Passive Foreign Investment Company Status," a U.S. Holder will be required to include in gross income as ordinary dividend income the amount of any distribution paid on our common shares, including any non-U.S. taxes withheld from the amount paid, to the extent the distribution is paid out of our current or accumulated earnings and profits as determined for U.S. federal income tax purposes. Distributions in excess of such earnings and profits will be applied against and will reduce the U.S. Holder's basis in our common shares and, to the extent in excess of such basis, will be treated as gain from the sale or exchange of our common shares. The dividend portion of such distributions generally will not qualify for the dividends received deduction available to corporations.

Subject to the discussion below under "Passive Foreign Investment Company Status," dividends that are received by U.S. Holders that are individuals, estates or trusts may qualify for taxation at the rate applicable to long-term capital gains (a maximum marginal federal income tax rate of 20%), provided that such U.S. Holders satisfy certain holding period requirements and such dividends meet the requirements of "qualified dividend income." For this purpose, dividends paid by a non-U.S. corporation may qualify if the non-U.S. corporation is eligible for benefits of a comprehensive income tax treaty with the U.S., which benefits include an information exchange program and is determined to be satisfactory by the U.S. Secretary of the Treasury. The IRS has determined that the U.S.- Canada Tax Treaty is satisfactory for this purpose. Dividends that fail to meet such requirements, and dividends received by corporate U.S. Holders, are taxed at ordinary income rates.

Distributions of current or accumulated earnings and profits paid in foreign currency to a U.S. Holder (including any non-U.S. taxes withheld therefrom) will be includible in the income of a U.S. Holder in a U.S. Dollar amount calculated by reference to the exchange rate on the day the distribution is received. A U.S. Holder that receives a foreign currency distribution and converts the foreign currency into U.S. dollars subsequent to receipt may have foreign exchange gain or loss based on any appreciation or depreciation in the value of the foreign currency against the U.S. dollar, which will generally be U.S. source ordinary income or loss. A loss might not be deductible due to certain limitation.

U.S. Holders will have the option of claiming the amount of any non-U.S. income taxes withheld at source either as a deduction from gross income or as a dollar-for-dollar credit against their U.S. federal income tax liability. Individuals who do not claim itemized deductions, but instead utilize the standard deduction, may not claim a deduction for the amount of the non-U.S. income taxes withheld, but such amount may be claimed as a credit against the individual's U.S. federal income tax liability. The amount of non-U.S. income taxes which may be claimed as a credit in any taxable year is subject to complex limitations and restrictions, which must be determined on an individual basis by each shareholder. These limitations include, among others, rules that limit foreign tax credits allowable with respect to specific classes of income to the U.S. federal income taxes otherwise payable with respect to each such class of income. A U.S. Holder will be denied a foreign tax credit with respect to non-U.S. income tax withheld from a dividend received on the common shares if such U.S. Holder does not satisfy certain holding period requirements.

Distributions of current or accumulated earnings and profits generally will be foreign source income for U.S. foreign tax credit purposes.

#### Disposition of Common Shares

Subject to the discussion below under “Passive Foreign Investment Company Status,” upon the sale, exchange or other taxable disposition of our common shares, a U.S. Holder will recognize capital gain or loss in an amount equal to the difference between such U.S. Holder’s basis in such common shares, which is usually the cost of such shares, and the amount realized on the disposition. Capital gain from the sale, exchange or other disposition of common shares held more than one year is long-term capital gain, and is eligible for a reduced rate of taxation for individuals (currently a maximum marginal federal income tax rate of 20%). Gains recognized by a U.S. Holder on a sale, exchange or other disposition of common shares generally will be treated as U.S. source income for U.S. foreign tax credit purposes. A loss recognized by a U.S. Holder on the sale, exchange or other taxable disposition of common shares generally is allocated to U.S. source income. The deductibility of capital losses recognized on the sale, exchange or other taxable disposition of common shares is subject to limitations. A U.S. Holder that receives foreign currency upon disposition of common shares and converts the foreign currency into U.S. dollars subsequent to the settlement date or trade date (whichever date the taxpayer was required to use to calculate the value of the proceeds of sale) may have foreign exchange gain or loss based on any appreciation or depreciation in the value of the foreign currency against the U.S. Dollar, which will generally be U.S. source ordinary income or loss. Such loss may not be deductible due to certain limitations.

#### Passive Foreign Investment Company Status

We would be a passive foreign investment company (a “PFIC”) if (taking into account certain “look-through” rules with respect to the income and assets of our corporate subsidiaries in which we own 25 percent (by value) of the stock) either (i) 75 percent or more of our gross income for the taxable year was passive income or (ii) the average percentage (by value) of our total assets that are passive assets during the taxable year was at least 50 percent.

If we were a PFIC, each U.S. Holder would (unless it made one of the elections discussed below on a timely basis) be taxable on gain recognized from the disposition of our common shares (including gain deemed recognized if the common shares are used as security for a loan) and upon receipt of certain “excess distributions” (generally, distributions that exceed 125% of the average amount of distributions in respect to such common shares received during the preceding three taxable years or, if shorter, during the U.S. Holder’s holding period prior to the distribution year) with respect to our common shares as if such income had been recognized ratably over the U.S. Holder’s holding period for the common shares. The U.S. Holder’s income for the current taxable year would include (as ordinary income) amounts allocated to the current taxable year and to any taxable year period prior to the first day of the first taxable year for which we were a PFIC. Tax would also be computed at the highest ordinary income tax rate in effect for each other taxable year period to which income is allocated, and an interest charge on the tax as so computed would also apply. Additionally, if we were a PFIC, U.S. Holders who acquire our common shares from decedents (other than non resident aliens) would be denied the normally available step-up in basis for such shares to fair market value at the date of death and, instead, would have a tax basis in such shares equal to the decedent’s basis, if lower.

As an alternative to the tax treatment described above, a U.S. Holder could elect to treat us as a “qualified electing fund” (a “QEF”), in which case the U.S. Holder would be taxed currently, for each taxable year that we are a PFIC, on its pro rata share of our ordinary earnings and net capital gain (subject to a separate election to defer payment of taxes, which deferral is subject to an interest charge). Special rules apply if a U.S. Holder makes a QEF election after the first taxable year in its holding period in which we are a PFIC. In the event that we conclude that we will be classified as a PFIC, we will make a determination at such time as to whether we will be able to provide U.S. Holders with the information that is necessary to make a QEF election. Amounts includable in income as a result of a QEF election will be determined without regard to our prior year losses or the amount of cash distributions, if any, received from us. A U.S. Holder’s basis in its common shares will increase by any amount included in income and decrease by any amounts not included in income when distributed because such amounts were previously taxed under the QEF rules. So long as a U.S. Holder’s QEF election is in effect with respect to the entire holding period for its common shares, any gain or loss realized by such holder on the disposition of its common shares held as a capital asset ordinarily will be capital gain or loss.

As an alternative to making the QEF election, a U.S. Holder of PFIC stock which is regularly traded on a qualified exchange may avoid the negative effects of the PFIC rules by electing to mark the stock to market and recognizing as ordinary income or loss, each taxable year that we are a PFIC, an amount equal to the difference as of the close of the taxable year between the fair market value of the PFIC stock and the U.S. Holder's adjusted tax basis in the PFIC stock. Losses would be allowed only to the extent of net mark-to-market gain previously included by the U.S. Holder under the election for prior taxable years. This election is available for so long as the Company's common shares constitute "marketable stock," which includes stock of a PFIC that is "regularly traded" on a "qualified exchange or other market." Generally, a "qualified exchange or other market" includes a national market system established pursuant to Section 11A of the Exchange Act, or a foreign securities exchange that is regulated or supervised by a governmental authority of the country in which the market is located and that has certain characteristics. A class of stock that is traded on one or more qualified exchanges or other markets is "regularly traded" on an exchange or market for any calendar year during which that class of stock is traded, other than in de minimis quantities, on at least 15 days during each calendar quarter, subject to special rules relating to an initial public offering. It is not entirely clear whether either the OTCBB or TSXV are qualified exchanges or other markets, or whether there will be sufficient trading volume with respect to the Company's common shares, and accordingly, whether the common shares will be "marketable stock" for these purposes. Furthermore, there can be no assurances that the Company's common shares will continue to trade on any of the exchanges listed above.

We believe we were not a PFIC for the year ending December 31, 2018 and do not expect to be classified as a PFIC for the year ending December 31, 2019. However, PFIC status is determined as of the end of each taxable year and is dependent on a number of factors, including the value of our passive assets, the amount and type of our gross income, and our market capitalization. Therefore, there can be no assurance that we will not become a PFIC for the current taxable year ending December 31, 2019 or in a future taxable year. U.S. Holders which are individuals, estates and trusts and whose income exceeds certain thresholds will be required to pay a 38% surtax on "net investment income" including, among other things, dividends (if any) and net gain realized from our common shares. U.S. Holders should consult with their own tax advisors regarding the application of this tax. We will notify U.S. Holders in the event we conclude that we will be treated as a PFIC for any taxable year.

#### Information Reporting and Backup Withholding

U.S. Holders (other than exempt recipients, such as corporations) generally are subject to information reporting requirements with respect to dividends paid on, or proceeds from the disposition of, our common shares. U.S. Holders are also generally subject to backup withholding (currently at a rate of 28%) on dividends paid on, or proceeds from the disposition of, our common shares unless the U.S. Holder provides IRS Form W-9 or otherwise establishes an exemption.

The amount of any backup withholding will be allowed as a credit against a U.S. or Non-U.S. Holder's U.S. federal income tax liability and may entitle such holder to a refund, provided that certain required information is furnished to the IRS.

#### F. Dividends and Paving Agents

Not Required.

#### G. Statements by Experts

The consolidated financial statements of POET Technologies Inc. as of December 31, 2019, 2018 and 2017 included herein, have been audited by Marcum LLP, our independent registered accounting firm for that period, 555 Long Wharf Drive, 8<sup>th</sup> Floor, New Haven, CT 06511, USA, as stated in their report appearing herein, and are included in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

#### H. Documents on Display

The Company's documents can be viewed at its Canadian office, located at: Suite 1107, 120 Eglinton Avenue East, Toronto, Ontario M4P 1E2, Canada. Further, we file reports under Canadian regulatory requirements on SEDAR; you may access our reports filed on SEDAR by accessing their website at [www.sedar.com](http://www.sedar.com). The Company is subject to the informational requirements of the Securities Exchange Act of 1934, as amended (the Exchange Act), and files reports, Annual Reports and other information with the SEC. The SEC maintains a website that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC at [www.sec.gov](http://www.sec.gov). The Company's reports, Annual Reports and other information can be inspected on the SEC's website.

As a foreign private issuer, we are exempt from the rules under the Exchange Act related to the furnishing and content of proxy statements, and our officers, directors and principal shareholders are exempt from the reporting and short-swing profit recovery provisions contained in Section 16 of the Exchange Act. In addition, we are not required under the Exchange Act to file annual, and other reports and financial statements with the SEC as frequently or as promptly as United States domestic companies whose securities are registered under the Exchange Act.

We maintain a corporate website at [www.poet-technologies.com](http://www.poet-technologies.com). Information contained on, or that can be accessed through, our website does not constitute a part of this Annual Report on Form 20-F. We have included our website address in this Annual Report on Form 20-F solely as an inactive textual reference.

I. Subsidiary information

Not Required.

ITEM 11. Quantitative and Qualitative Disclosures About Market Risk

Interest Rate Risk

Short-term investments bear interest at fixed rates, and as such, are subject to interest rate risk resulting from changes in fair value from market fluctuations in interest rates. The Company does not depend on interest from its investments to fund its operations.

Exchange Rate Risk

The Company is exposed to foreign currency risk with the Canadian and Singapore dollar. The Company maintains bank accounts and cash reserves in US, Canadian and Singapore dollars with the majority of reserves currently split between Canadian and US dollars. The Canadian dollar reserves are exposed to currency fluctuations. Most of the company's operations are transacted in US and Singapore dollars. A 10% change in the Canadian and Singapore dollar would have increased or decreased other comprehensive loss by \$290,950.

The following table shows exchange rates, from CAD to USD, for the past six months:

Period	High (1)	Low (1)	Average (2)
March 2020	0.7501	0.6891	0.7181
February 2020	0.7573	0.7458	0.7529
January 2020	0.7714	0.7555	0.7645
December 2019	0.7655	0.7506	0.7580
November 2019	0.7620	0.7503	0.7561
October 2019	0.7667	0.7479	0.7573
October 2019 — March 31, 2020	0.8163	0.7629	0.7544

- (1) Bank of Canada monthly average rates
- (2) Bank of Canada daily closing average rates

The following table shows exchange rates, from SGD to USD, for the past six months:

Period	High (1)	Low (1)	Average (2)
March 2020	0.7254	0.6840	0.7056
February 2020	0.7324	0.7135	0.7196
January 2020	0.7432	0.7323	0.7400
December 2019	0.7399	0.7316	0.7357
November 2019	0.7369	0.7309	0.7339
October 2019	0.7346	0.7230	0.7288
October 2019 — March 31, 2020	0.7432	0.7213	0.7325

- (1) Bank of Singapore monthly average rates
- (2) Bank of Singapore daily closing average rates

Market Risk

Market risk arises from the possibility that changes in market prices will affect the value of the financial instruments of the Company. The Company is exposed to fair value fluctuations on its cash equivalents. The Company's other financial instruments (cash and accounts payable and accrued liabilities) are not subject to market risk, due to the short- term nature of these instruments.

ITEM 12. Description of Securities Other than Equity Securities

A. Debt Securities

Not Required.

B. Warrants and Rights

Not Required.

C. Other Securities

Not Required.

D. American Depositary Shares

Not Required.

PART II

ITEM 13. Defaults, Dividend Arrearages and Delinquencies

Not Required.

ITEM 14. Material Modifications to the Rights of Security Holders and Use of Proceeds

Not Required.

ITEM 15. Controls and Procedures

(a) Disclosure Controls and Procedures

We carried out an evaluation, under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of our disclosure controls and procedures (as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of the end of the period covered by this report. Based on such evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that, as of the end of such period, our disclosure controls and procedures were effective to provide reasonable assurance that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported accurately and within the time frames specified in the SEC's rules and forms and accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure. Notwithstanding the foregoing, there can be no assurance that our disclosure controls and procedures will detect or uncover all failures of persons within the Company to disclose material information otherwise required to be set forth in our reports.

(b) Management's Annual Report on Internal Control over Financial Reporting

The Company's Board of Directors and management are responsible for establishing and maintaining adequate internal control over financial reporting. The Company's internal control system was designed to provide reasonable assurance to management and the Board of Directors regarding the reliability of financial reporting and the preparation and fair presentation of its published consolidated financial statements.

All internal control systems, no matter how well designed, have inherent limitations. Therefore, even those systems determined to be effective may not prevent or detect misstatements and can provide only reasonable assurance with respect to financial statement preparation and presentation. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.



Management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2019. In making this assessment, it used the criteria established in Internal Control—Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on that assessment and those criteria, management concluded that, as of December 31, 2019, the Company's internal control over financial reporting was effective.

(c) Attestation Report of Registered Public Accounting Firm

Not applicable.

(d) Changes in Internal Controls over Financial Reporting

There were no changes in our internal control over financial reporting that occurred during the year ended December 31, 2019 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

ITEM 16. [RESERVED]

ITEM 16A. Audit Committee Financial Expert

Our Board of Directors has determined that Chris Tsiofas is an audit committee financial expert. The Board has determined that Mr. Tsiofas satisfies the criteria of "audit committee financial expert" set forth in Item 16A of Form 20-F and is independent in accordance with Rule 4200 of the Nasdaq Marketplace Rules.

ITEM 16B. Code of Ethics

In December 2007, our Board of Directors adopted a Code of Business Conduct and Ethics (the "Code") that applies to all our employees, including without limitation our chief executive officer, chief financial officer and principal accounting officer. Our Code may be viewed on our website at [www.poet-technologies.com](http://www.poet-technologies.com) and is filed as an Exhibit to this Annual Report. A copy of our Code may be obtained, without charge, upon a written request addressed to our office at, 120 Eglinton Avenue East, Suite 1107, Toronto, Ontario M4P 1E2, Canada.

ITEM 16C. Principal Accountant Fees and Services Fees Paid to Independent Registered Public Accounting Firm

The following table sets forth, for each of the years indicated, the fees billed by our independent registered public accounting firm, Marcum LLP.

Services Rendered	Year Ended December 31,	
	2019	2018
	(in US\$)	
Audit Fees (1)	\$ 175,000	\$ 189,500
Tax Fees (2)	17,200	11,700
<b>Total</b>	<b>\$ 192,200</b>	<b>\$ 201,200</b>

(1) Audit fees consist of services that would normally be provided in connection with statutory and regulatory filings or engagements, including services that generally only the independent accountant can reasonably provide.

(2) Tax fees relate to tax compliance, planning and advice.

Our Audit Committee, in accordance with its charter, reviews and pre-approves all audit services and permitted non-audit services (including the fees and other terms) to be provided by our independent auditors. All of the services provided by Marcum LLP over the past two years were pre-approved by the Audit Committee.

ITEM 16D. Exemptions from the Listing Standards for Audit Committees

Not Required.

ITEM 16E. Purchases of Equity Securities by the Issuer and Affiliated Purchasers

Not Required.

ITEM 16F. Change in Registrant's Certifying Accountants

Not Required.

ITEM 16G. Corporate Governance

Not Required.

ITEM 16H. Mine Safety Disclosure

Not Required.

### PART III

ITEM 17. Financial Statements

The Company's consolidated financial statements are stated in U.S. dollars and are prepared in accordance with IFRS as issued by the International Accounting Standards Board.

The consolidated financial statements required under ITEM 17 are attached hereto and found immediately following the text of this Annual Report and are incorporated by reference herein. The audit report of Marcum LLP, independent registered public accounting firm, is included herein immediately preceding the audited consolidated financial statements.

a. Audited Financial Statements— for the years ended December 31, 2019, 2018 and 2017 and as of December 31, 2019, 2018 and 2017

ITEM 18. Financial Statements

The Company has elected to provide financial statements pursuant to ITEM 17.

ITEM 19. Exhibits

<a href="#">1.1</a>	<a href="#">Certificate and Articles of Continuance (1)</a>
<a href="#">1.2</a>	<a href="#">Amended and Restated Bylaws (2)</a>
<a href="#">2.0</a>	<a href="#">Description of Securities</a>
<a href="#">4.1</a>	<a href="#">License Agreement with the University of Connecticut, dated April 28, 2003, as amended April 15, 2014 (1)</a>
<a href="#">4.2</a>	<a href="#">Agency Agreement with IBK Capital Corp., dated February 14, 2013 (1)</a>
<a href="#">4.3</a>	<a href="#">Shareholder Rights Plan Agreement between the Company and TMX Equity Transfer Services, Inc.(2)</a>
<a href="#">4.4</a>	<a href="#">Employment Agreement with Suresh Venkatesan, dated June 10, 2015 (3)</a>
<a href="#">4.5</a>	<a href="#">Employment Agreement with Rajan Rajgopal, dated December 27, 2016 (4)</a>
<a href="#">4.6</a>	<a href="#">Employment Agreement with Thomas Mika, dated November 2, 2016 (4)</a>
<a href="#">4.7</a>	<a href="#">Employment Agreement with Dave Lazovsky, dated February 1, 2017 (4)</a>
<a href="#">4.8</a>	<a href="#">Sale and Purchase Agreement for DenseLight Semiconductors PTE. LTD, dated April 27, 2016 (4)</a>
<a href="#">4.9</a>	<a href="#">Sale and Purchase Agreement for BB Photonics Inc, dated May 16, 2016 (4)</a>
<a href="#">4.10</a>	<a href="#">2018 Stock Option Plan (5)</a>
<a href="#">4.11</a>	<a href="#">Form of Option Agreement(1)</a>
<a href="#">4.12</a>	<a href="#">Form of Warrant for Purchase of Common Shares (1)</a>
<a href="#">4.13</a>	<a href="#">Stock Specimen Certificate (1)</a>
<a href="#">4.14</a>	<a href="#">Credit Facility Agreement (5)</a>
<a href="#">4.15</a>	<a href="#">Share Sale Agreement for DenseLight Semiconductors PTE. Ltd dated August 20, 2019 (6)</a>
<a href="#">4.16</a>	<a href="#">Employment agreement with Vivek Rajgarhia, dated November 4, 2019 (6)</a>
<a href="#">4.17</a>	<a href="#">Convertible Debenture Indenture, dated April 3, 2019 (6)</a>
<a href="#">4.18</a>	<a href="#">Warrant Indenture with TSX Trust Company, dated April 3, 2019 (6)</a>
<a href="#">4.19</a>	<a href="#">Convertible Debenture Indenture, dated May 3, 2019 (6)</a>
<a href="#">4.20</a>	<a href="#">Warrant Indenture with TSX Trust Company, dated May 3, 2019 (6)</a>
<a href="#">4.21</a>	<a href="#">Convertible Debenture Indenture, dated June 3, 2019 (6)</a>
<a href="#">4.22</a>	<a href="#">Warrant Indenture with TSX Trust Company, dated June 3, 2019 (6)</a>
<a href="#">4.23</a>	<a href="#">Convertible Debenture Indenture, dated August 2, 2019 (6)</a>
<a href="#">4.24</a>	<a href="#">Warrant Indenture with TSX Trust Company, dated August 2, 2019 (6)</a>
<a href="#">4.25</a>	<a href="#">Convertible Debenture Indenture, dated September 19, 2019 (6)</a>
<a href="#">4.26</a>	<a href="#">Warrant Indenture with TSX Trust Company, dated September 19, 2019 (6)</a>
<a href="#">8.1</a>	<a href="#">List of Subsidiaries: See ITEM 4.C.</a>
<a href="#">11.1</a>	<a href="#">Code of Business Conduct and Ethics (2)</a>
<a href="#">12.1</a>	<a href="#">Certification of Principal Executive Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) (6)</a>
<a href="#">12.2</a>	<a href="#">Certification of Principal Financial Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) (6)</a>
<a href="#">13.1</a>	<a href="#">Certification of Principal Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (6)</a>
<a href="#">13.2</a>	<a href="#">Certification of Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (6)</a>
<a href="#">23.1</a>	<a href="#">Consent of Marcum LLP, independent registered accounting firm (6)</a>
101.INS(**)	XBRL Instance Document
101.SCH(**)	XBRL Taxonomy Extension Schema Linkbase Document
101.AL(**)	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF(**)	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB(**)	XBRL Taxonomy Extension Label Linkbase Document
101.PRE(**)	XBRL Taxonomy Extension Presentation Linkbase Document

(1) Filed as an exhibit to the Company's registration statement under the Securities and Exchange Act on Form 20-F/A on May 15, 2014 and incorporated herein by reference.

(2) Filed as an exhibit to the Company's annual Form 20-F on April 13, 2015 and incorporated herein by reference.

(3) Filed as an exhibit to the Company's annual Form 20-F on March 18, 2016 and incorporated herein by reference.

(4) Filed as an exhibit to the Company's annual Form 20-F on April 18, 2017 and incorporated herein by reference.

(5) Filed as an exhibit to the Company's annual Form 20-F on April 30, 2019 and incorporated herein by reference

(6) Filed as an exhibit to this annual Form 20-F.

(\*\*) In accordance with Rule 402 of Regulation S-T, the information in these exhibits shall not be deemed to be "filed" for purposes of Section 18 of the Exchange Act, or otherwise subject to the liability of that section, and shall not be incorporated by reference into any registration statement or other document filed under the Securities Act, or the Exchange Act, except as shall be expressly set forth by specific reference in such filing.

WHERE TO FIND ADDITIONAL INFORMATION

We file reports and other information with the Securities and Exchange Commission; you may obtain copies of our filings with the SEC by accessing their website located at [www.sec.gov](http://www.sec.gov). Further, we file reports under Canadian regulatory requirements on SEDAR; you may access our reports filed on SEDAR by accessing their website at [www.sedar.com](http://www.sedar.com).

#### MANAGEMENT'S RESPONSIBILITY FOR FINANCIAL INFORMATION

The accompanying consolidated financial statements of the Company and other financial information contained in this Annual Report are the responsibility of management. The consolidated financial statements have been prepared in conformity with IFRS, using management's best estimates and judgments, where appropriate. In the opinion of management, these consolidated financial statements reflect fairly the financial position and the results of operations and cash flows of the Company within reasonable limits of materiality. The financial information contained elsewhere in this Annual Report has been reviewed to ensure consistency with that in the consolidated financial statements.

To assist management in discharging these responsibilities, the Company maintains a system of procedures and internal control which is designed to provide reasonable assurance that its assets are safeguarded against loss from unauthorized use or disposition, that transactions are executed in accordance with management's authorization and that the financial records form a reliable base for the preparation of accurate and reliable financial information.

The Board of Directors endeavors to ensure that management fulfills its responsibilities for the financial reporting and internal control. The Board of Directors exercises this responsibility through its independent Audit Committee comprising a majority of unrelated and outside directors. The Audit Committee meets periodically with management and annually with the external auditors to review audit recommendations and any matters that the auditors believe should be brought to the attention of the Board of Directors. The Audit Committee also reviews the consolidated financial statements and recommends to the Board of Directors that the statements be approved for issuance to the shareholders.

The consolidated financial statements for the years ended December 31, 2019, 2018 and 2017 have been audited by Marcum LLP, independent registered public accounting firm, which has full and unrestricted access to the Audit Committee. Marcum's report on the consolidated financial statements is presented herein.

#### SIGNATURES

The Registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this Annual Report on its behalf.

POET TECHNOLOGIES INC.

/s/ Suresh Venkatesan

Suresh Venkatesan

CEO

Date: April 29, 2020

**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

To the Shareholders and Board of Directors of  
POET Technologies Inc.

**Opinion on the Financial Statements**

We have audited the accompanying consolidated statements of financial position of POET Technologies Inc. (the "Company") as of December 31, 2019, 2018 and 2017, the related consolidated statements of operations and deficit, comprehensive loss, changes in shareholders' equity and cash flows for each of the three years in the period ended December 31, 2019, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2019, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019, in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board.

**Basis for Opinion**

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and the Canadian Public Accounting Board ("CPAB") and are required to be independent with respect to the Company in accordance with the ethical requirements that are relevant to our audit of the consolidated financial statements in Canada, the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Marcum LLP

Marcum LLP

We have served as the Company's auditor since 2009, such date takes into account the acquisition of a portion of UHY LLP by Marcum LLP in April 2010.

New Haven, Connecticut  
April 29, 2020

POET TECHNOLOGIES INC.

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION  
(Expressed in US Dollars)

December 31,	2019	2018	2017
<b>Assets</b>			
Current			
Cash and cash equivalents	\$ 1,428,129	\$ 2,567,868	\$ 4,974,478
Accounts receivable (Notes 2 and 4)	-	946,944	493,925
Receivable from the sale of discontinued operations (Note 23)	18,000,000	-	-
Prepays and other current assets (Note 5)	831,265	2,936,619	1,957,727
Inventory (Note 6)	-	436,833	524,582
	20,259,394	6,888,264	7,950,712
Property and equipment (Note 7)			
Property and equipment (Note 7)	3,143,060	9,299,513	8,278,170
Patents and licenses (Note 8)	452,384	466,714	456,250
Right of use asset (Note 9)	222,517	-	-
Intangible assets (Note 10)	-	802,409	839,637
Goodwill (Note 24)	-	7,681,003	7,681,003
	\$ 24,077,355	\$ 25,137,903	\$ 25,205,772
<b>Liabilities</b>			
Current			
Accounts payable and accrued liabilities (Note 11)	\$ 1,725,708	\$ 3,040,422	\$ 810,593
Lease liability (Note 9)	90,504	-	-
Convertible debentures (Note 12)	3,089,033	-	-
	4,905,245	3,040,422	810,593
Lease liability (Note 9)			
Lease liability (Note 9)	133,254	-	-
Deferred tax liability (Note 24)	-	1,000,427	1,298,367
Deferred rent	-	1,814	24,031
	5,038,499	4,042,663	2,132,991
<b>Shareholders' Equity</b>			
Share capital (Note 13(b))			
Share capital (Note 13(b))	112,144,172	112,028,194	103,616,221
Equity component of convertible debentures (Note 12)	627,511	-	-
Warrants (Note 14)	8,525,358	8,303,738	5,985,378
Contributed surplus (Note 15)	38,799,337	36,042,754	32,102,967
Accumulated other comprehensive loss	(1,908,715)	(2,083,514)	(1,758,632)
Deficit	(139,148,807)	(133,195,932)	(116,873,153)
	19,038,856	21,095,240	23,072,781
	\$ 24,077,355	\$ 25,137,903	\$ 25,205,772
Commitments and contingencies (Note 17)			

On behalf of the Board of Directors

/s/ Suresh Venkatesan  
Director

/s/ Chris Tsiofas  
Director

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

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POET TECHNOLOGIES INC.

CONSOLIDATED STATEMENTS OF OPERATIONS AND DEFICIT

(Expressed in US Dollars)

For the Years Ended December 31,	2019	2018	2017
Operating expenses			
Selling, marketing and administration (Note 22)	6,697,387	6,173,875	5,887,709
Research and development (Note 22)	2,083,815	2,262,476	2,039,421
Impairment of long lived assets (Notes 10 and 24)	1,764,459	-	-
Interest expense (Notes 9 and 12)	819,911	-	-
Amortization of debt issuance costs (Note 12)	372,340	-	-
Other income, including interest	(10,540)	(14,234)	(18,279)
Operating expenses	11,727,372	8,422,117	7,908,851
Net loss from continuing operations, before taxes	(11,727,372)	(8,422,117)	(7,908,851)
Income tax recovery (Note 25)	(292,740)	-	-
Net loss from continuing operations	(11,434,632)	(8,422,117)	(7,908,851)
Income (loss) from discontinued operations, net of taxes (Notes 23 and 25)	5,481,757	(7,900,662)	(4,888,946)
Net loss	(5,952,875)	(16,322,779)	(12,797,797)
Deficit, beginning of year	(133,195,932)	(116,873,153)	(104,075,356)
Net loss	(5,952,875)	(16,322,779)	(12,797,797)
Deficit, end of year	\$ (139,148,807)	\$ (133,195,932)	\$ (116,873,153)
Basic and diluted loss per share, continuing operations (Note 16)	\$ (0.04)	\$ (0.03)	\$ (0.03)
Basic and diluted income (loss) per share, discontinued operations (Note 16)	\$ 0.02	\$ (0.03)	\$ (0.02)
Basic and diluted net loss per share (Note 16)	\$ (0.02)	\$ (0.06)	\$ (0.05)

CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS

(Expressed in US Dollars)

For the Years Ended December 31,	2019	2018	2017
Net loss	\$ (5,952,875)	\$ (16,322,779)	\$ (12,797,797)
Other comprehensive income (loss) - net of income taxes			
Exchange differences on translating foreign operations, continuing operations	3,109	(543,557)	362,679
Exchange differences on translating foreign operations, discontinued operations	171,690	218,675	(33,194)
Comprehensive loss	\$ (5,778,076)	\$ (16,647,661)	\$ (12,468,312)

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

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POET TECHNOLOGIES INC.

CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY  
(Expressed in US Dollars)

For the Years Ended December 31,	2019	2018	2017
<b>Share Capital</b>			
Beginning balance	\$ 112,028,194	\$ 103,616,221	\$ 103,357,862
Funds from the exercise of stock options	60,028	87,974	123,528
Fair value of stock options exercised	55,950	82,330	134,831
Funds from the exercise of warrants and compensation warrants	-	1,028,471	-
Fair value of warrants and compensation warrants exercised	-	447,270	-
Common shares issued on public offering	-	10,663,548	-
Share issue costs	-	(1,131,990)	-
Fair value of warrants issued on public offering	-	(2,286,426)	-
Fair value of compensation options issued to brokers	-	(479,204)	-
December 31,	112,144,172	112,028,194	103,616,221
<b>Equity Component of convertible debentures</b>			
Beginning balance	-	-	-
Fair value of equity component of convertible debentures	627,511	-	-
December 31,	627,511	-	-
<b>Warrants</b>			
Beginning balance	8,303,738	5,985,378	2,013,747
Fair value of warrants issued in conjunction with of debt financing	221,620	-	-
Fair value of warrants issued on public offering	-	2,286,426	5,985,378
Fair value of compensation options issued to brokers	-	479,204	-
Fair value of warrants and compensation warrants exercised	-	(447,270)	(901,417)
Fair value of expired warrants	-	-	(1,112,330)
December 31,	8,525,358	8,303,738	5,985,378
<b>Contributed Surplus</b>			
Beginning balance	36,042,754	32,102,967	29,062,874
Stock-based compensation	2,812,533	4,022,117	3,174,924
Fair value of stock options exercised	(55,950)	(82,330)	(134,831)
December 31,	38,799,337	36,042,754	32,102,967
<b>Accumulated Other Comprehensive Loss</b>			
Beginning balance	(2,083,514)	(1,758,632)	(2,088,117)
Other comprehensive income (loss) attributable to common shareholders - translation adjustment	174,799	(324,882)	329,485
December 31,	(1,908,715)	(2,083,514)	(1,758,632)
<b>Deficit</b>			
Beginning balance	(133,195,932)	(116,873,153)	(104,075,356)
Net loss	(5,952,875)	(16,322,779)	(12,797,797)
December 31,	(139,148,807)	(133,195,932)	(116,873,153)
<b>Total Shareholders' Equity</b>	\$ 19,038,856	\$ 21,095,240	\$ 23,072,781

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

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POET TECHNOLOGIES INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS

(Expressed in US Dollars)

For the Years Ended December 31,

	2019		2018		2017
<b>CASH AND CASH EQUIVALENTS (USED IN) PROVIDED BY:</b>					
<b>OPERATING ACTIVITIES</b>					
Net loss	\$ (5,952,875)	\$	(16,322,779)	\$	(12,797,797)
Discontinued operations, net of tax	(5,481,757)		7,900,662		4,888,946
Net loss, continuing operations	(11,434,632)		(8,422,117)		(7,908,851)
Adjustments for:					
Depreciation of property and equipment (Note 7)	166,342		96,452		128,283
Amortization of patents and licenses (Note 8)	61,671		56,792		53,969
Amortization of debt issuance cost (Note 12)	372,340		-		-
Amortization of right of use asset (Note 9)	15,683		-		-
Impairment of long lived assets (Notes 10 and 24)	1,764,459		-		-
Accretion of debt discount on convertible debentures (Note 12)	280,829		-		-
Stock-based compensation (Note 15)	2,888,141		3,602,879		2,958,358
Income tax recovery (Notes 25)	(292,740)		-		-
	(6,177,907)		(4,665,994)		(4,768,241)
Net change in non-cash working capital accounts:					
Prepaid and other current assets (Note 5)	(685,667)		(75,855)		78,011
Accounts payable and accrued liabilities (Note 11)	420,457		244,054		(544,809)
Cash flows from operating activities, continuing operations	(6,443,117)		(4,497,795)		(5,235,039)
Cash flows from operating activities, discontinued operations	(2,951,104)		(4,790,793)		(3,928,651)
	(9,394,221)		(9,288,588)		(9,163,690)
<b>INVESTING ACTIVITIES</b>					
Purchase of property and equipment (Note 7)	(445,678)		-		(57,023)
Purchase of patents and licenses (Note 8)	(65,806)		(67,608)		(41,728)
Proceeds from the sale of short-term investments	-		-		589,275
Cash flows from investing activities, continuing operations	(511,484)		(67,608)		490,524
Cash flow from investing activities, discontinued operations	5,908,623		(3,467,992)		(931,589)
	5,397,139		(3,535,600)		(441,065)
<b>FINANCING ACTIVITIES</b>					
Proceeds from convertible debentures, net of issue costs paid in cash (Note 12)	3,352,849		-		-
Proceeds from loan payable and promissory note (Note 12)	4,000,000		-		-
Repayment of loan payable and promissory note (Note 12)	(4,000,000)		-		-
Issue of common shares for cash, net of issue costs (Note 13)	60,028		10,648,003		123,528
Payment of lease liability (Note 9)	(19,162)		-		-
Cash flows from financing activities, continuing operations	3,393,715		10,648,003		123,528
Cash flow from financing activities, discontinued operations	(258,460)		-		-
	3,135,255		10,648,003		123,528
Effect of exchange rate on cash, continuing operations	(263,902)		(256,915)		144,761
Effect of exchange rate on cash, discontinued operations	(14,010)		26,490		(65,338)
Effect of exchange rate on cash	(277,912)		(230,425)		79,423
Net change in cash and cash equivalents, continuing operations	(3,824,788)		5,825,685		(4,476,226)
Net change in cash and cash equivalents, discontinued operations	2,685,049		(8,232,295)		(4,925,578)
Cash and cash equivalents, beginning of year	2,567,868		4,974,478		14,376,282
	\$ 1,428,129	\$	2,567,868	\$	4,974,478
<b>SUPPLEMENTAL DISCLOSURE OF NON-CASH INVESTING ACTIVITIES</b>					
Purchase of property and equipment financed through accounts payable	\$ -	\$	250,160	\$	-

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

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**POET TECHNOLOGIES INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

(Expressed in US Dollars)

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**1. DESCRIPTION OF BUSINESS**

POET Technologies Inc. is incorporated in the Province of Ontario. POET Technologies Inc. and its subsidiaries (the "Company") are developers and manufacturers of optical source products and photonic integrated devices for the sensing, datacom and telecom markets. The Company's head office is located at 120 Eglinton Avenue East, Suite 1107, Toronto, Ontario, Canada M4P 1E2. These consolidated financial statements of the Company were approved by the Board of Directors of the Company on April 28, 2020.

**2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

These consolidated financial statements of the Company and its subsidiaries were prepared in accordance with International Financial Reporting Standards ("IFRS"), as issued by the International Accounting Standards Board ("IASB").

The preparation of financial statements in accordance with IFRS requires the use of certain critical accounting estimates. It also requires management to exercise judgment in applying the Company's accounting policies. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the financial statements are disclosed below:

**Basis of presentation**

These consolidated financial statements include the accounts of POET Technologies Inc. and its subsidiaries; ODIS Inc. ("ODIS"), Opel Solar Inc. ("OPEL"), BB Photonics Inc., BB Photonics UK Limited (collectively "BB Photonics") and POET Technologies Pte Ltd. ("PTS"). They also include the accounts of DenseLight Semiconductor Pte Ltd. ("DenseLight") up-to November 8, 2019. All intercompany balances and transactions have been eliminated on consolidation.

On November 8, 2019, the Company sold 100% of the issued and outstanding shares of DenseLight for \$26,000,000. The Company received \$8,000,000 upon the consummation of the sale. The Company expects to receive the remaining \$18,000,000 over three tranches, with \$4,750,000 received on February 14, 2020 and \$8,250,000 received on March 30, 2020. The remaining \$5,000,000 is expected to be received on or before May 31, 2020. Shares were placed into escrow in the name of the Buyer, to be released to the Buyer upon receipt of the remaining payments. The Buyer assumed control of DenseLight on November 8, 2019 and will be responsible for all operations of DenseLight thence-forth. Upon closing, the Company recognized a gain on the sale of \$8,707,280. The Company received an additional \$2,000,000, in excess of the sale proceeds, with the most recently paid two tranches which was immediately paid to Oak Capital on behalf of the Buyer for due diligence, legal and other expenses.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

**Business combinations**

Acquisitions of businesses are accounted for using the acquisition method. The acquisition cost is measured at the acquisition date at the fair value of the consideration transferred, including all contingent consideration.

Subsequent changes in contingent consideration are accounted for through the consolidated statements of operations and deficit and consolidated statements of comprehensive loss in accordance with the applicable standards.

Goodwill arising on acquisition is initially measured at cost, being the difference between the fair value of the consideration transferred including the recognized amount of any non-controlling interest in the acquiree and the net recognized amount (generally fair value) of the identifiable assets and liabilities assumed at the acquisition date. If the net of the amounts of the identifiable assets acquired and liabilities assumed exceeds the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree and the fair value of the acquirer's previously held interest in the acquiree (if any), the excess is recognized immediately in the consolidated statements of operations and deficit as a bargain purchase gain.

Acquisition-related costs, other than those that are associated with the issue of debt or equity securities that the Company incurs in connection with a business combination, are expensed as incurred.

**Foreign currency translation**

These consolidated financial statements are presented in U.S. dollars ("USD"), which is the Company's presentation currency.

Items included in the financial statements of each of the Company's subsidiaries are measured using the currency of the primary economic environment in which the entity operates (the "functional currency"). Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transaction. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation of monetary assets and liabilities not denominated in the functional currency of an entity are recognized in the statement of operations and deficit.

Assets and liabilities of entities with functional currencies other than U.S. dollars are translated into the presentation currency at the year end rates of exchange, and the results of their operations are translated at average rates of exchange for the year. The resulting translation adjustments are included in accumulated other comprehensive loss in shareholders' equity. Additionally, foreign exchange gains and losses related to certain intercompany loans that are permanent in nature are included in accumulated other comprehensive loss. Elements of equity are translated at historical rates.

**Financial instruments**

IFRS 9 introduced new classification and measurement models for financial assets. The investment classifications held-to-maturity and available-for-sale are no longer used and financial assets at fair value through other comprehensive income ("FVTOCI") were introduced. Financial assets held with an objective to hold assets in order to collect contractual cash flows which arise on specified dates that are solely principal and interest are measured at amortised cost using the effective interest method. Debt investments held with an objective to hold both assets in order to collect contractual cash flows which arise on specified dates that are solely principal and interest as well as selling the asset on the basis of fair value are measured at FVTOCI. All other financial assets are classified and measured at fair value through profit or loss ("FVTPL"). Financial liabilities are classified as either FVTPL or other financial liabilities, and the portion of the change in fair value that relates to the Company's credit risk is presented in other comprehensive income (loss). Instruments classified as FVTPL are measured at fair value with unrealized gains and losses recognized in net income (loss). Other financial liabilities are subsequently measured at amortised cost using the effective interest method.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Transaction costs that are directly attributable to the acquisition or issuance of financial assets and financial liabilities, other than financial assets and financial liabilities classified as FVTPL, are added to or deducted from the fair value on initial recognition. Transaction costs directly attributable to the acquisition of financial assets or financial liabilities classified as FVTPL are recognized immediately in consolidated net income (loss).

**Derecognition**

**Financial assets**

The Company derecognizes a financial asset when the contractual rights to the cash flows from the financial asset expire, or it transfers the rights to receive the contractual cash flows in a transaction in which substantially all of the risks and rewards of ownership of the financial asset are transferred or in which the Company neither transfers nor retains substantially all of the risks and rewards of ownership and it does not retain control of the financial asset. Any interest in transferred financial assets that is created or retained by the Company is recognized as a separate asset or liability.

**Financial liabilities**

A financial liability is derecognized from the balance sheet when it is extinguished, that is, when the obligation specified in the contract is either discharged, cancelled or expires. Where there has been an exchange between an existing borrower and lender of debt instruments with substantially different terms, or there has been a substantial modification of the terms of an existing financial liability, this transaction is accounted for as an extinguishment of the original financial liability and the recognition of a new financial liability. A gain or loss from extinguishment of the original financial liability is recognized in profit or loss. The Company's financial instruments include cash and cash equivalents, short-term investments, accounts receivable, accounts payable and accrued liabilities.

The following table outlines the classification of financial instruments under IAS 39 and the revised classification on the adoption of IFRS 9:

	<b>Original classification under IAS 39</b>	<b>New classification under IFRS 9</b>
<b>Financial Assets</b>		
Cash and cash equivalents	Loans and receivables	Amortized cost
Short-term investments	FVTPL	Amortized cost
Accounts receivable	Loans and receivables	Amortized cost
<b>Financial Liabilities</b>		
Accounts payable and accrued liabilities	Amortized costs	Amortized cost

Convertible debentures are accounted for as a compound financial instrument with a debt component and a separate equity component. The debt component of these compound financial instruments is measured at fair value on initial recognition by discounting the stream of future interest and principal payments at the rate of interest prevailing at the date of issue for instruments of similar term and risk. The debt component is subsequently deducted from the total carrying value of the compound instrument to derive the equity component. The debt component is subsequently measured at amortized cost using the effective interest rate method. Interest expense based on the coupon rate of the debenture and the accretion of the liability component to the amount that will be payable on redemption are recognized through profit or loss as a finance cost.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

**Cash and cash equivalents**

Cash and cash equivalents consist of cash in current accounts of \$1,278,129 (2018 - \$2,267,868, 2017- \$4,974,478) and funds invested in US Term Deposits of \$150,000 (2018 - \$300,000, 2017 - nil) earning interest at 1.31% and maturing in less than 90 days.

Cash and cash equivalents include restricted funds of \$93,800 (2018 - \$218,888, 2017 - nil) which serves as a bank guarantee for the purchase of certain equipment. The bank guarantee is reduced on a monthly basis by \$10,424 which is amount paid monthly in settlement of the outstanding balance on the equipment.

**Accounts receivable**

Accounts receivable are amounts due from customers from the sale of products or services in the ordinary course of business. Accounts receivables are classified as current (on the consolidated statements of financial position) if payment is due within one year of the reporting period date, and are initially recognized at fair value and subsequently measured at amortized cost.

In determining a default provision, the Company utilizes a provision matrix, as permitted under the simplified approach to measure expected credit losses. In doing so management considered historical credit losses, forward-looking factors specific to the Company's debtors and other macro-economic factors to arrive at expected default rates. The default rates are then applied to the Company's aging to determine expected credit losses. The carrying amount of trade receivables is reduced by the expected credit losses. If the financial conditions of these customers were to deteriorate and the Company determines that no recovery of a trade receivable is possible, the amount is deemed irrecoverable and subsequently written-off. Accounts receivable at December 31, 2018 and 2017 related to revenue earned by DenseLight. DenseLight was sold on November 8, 2019 (see Note 23).

**Inventory**

Inventory consists of raw material inventory, work in process, and finished goods and are recorded at the lower of cost and net realizable value. Cost is determined on a first in first out basis and includes all costs of purchase, costs of conversion and other costs incurred in bringing the inventory to its present condition.

An assessment is made of the net realizable value of inventory at each reporting period. Net realizable value is the estimated selling price less the estimated cost of completion and the estimated costs necessary to make the sale. When circumstances that previously caused inventories to be written down no longer exist or when there is clear evidence of an increase in net realizable value because of changed economic circumstances, the amount of any write down previously recorded is reversed so that the new carrying amount is the lower of the cost and the revised net realizable value. Raw materials are not written down unless the goods in which they are incorporated are expected to be sold for less than cost, in which case, they are written down by reference to replacement cost of the raw materials, as this is the best indicator of net realizable value. Inventory at December 31, 2018 and 2017 related to inventory held by DenseLight. DenseLight was sold on November 8, 2019 (see Note 23).

**Property and equipment**

Property and equipment are recorded at cost. Depreciation is calculated based on the estimated useful life of the asset using the following method and useful lives:

Machinery and equipment	Straight Line, 5 years
Leasehold improvements	Straight Line, 5 years or life of the lease, whichever is less
Office equipment	Straight Line, 3 - 5 years

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

**Patents and licenses**

Patents and licenses are recorded at cost and amortized on a straight line basis over 12 years. Ongoing maintenance costs are expensed as incurred.

**Impairment of long-lived assets**

The Company's tangible and intangible assets are reviewed for indications of impairment whenever events or changes in circumstances indicate that the carrying amounts of the assets may not be recoverable. An assessment is made at each reporting date whether there is any indication that an asset may be impaired.

An impairment loss is recognized when the carrying amount of an asset exceeds its recoverable amount. Impairment losses are recognized in profit and loss for the year. The recoverable amount is the greater of the asset's fair value less costs to sell and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. For an asset that does not generate largely independent cash inflows, the recoverable amount is determined for the cash-generating unit ("CGU") to which the asset belongs.

An impairment loss is reversed if there is an indication that there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized. The Company reported an impairment loss of \$714,000 for the year ended December 31, 2019 (2018 - nil, 2017 - nil) (Note 10).

**Goodwill**

Goodwill represents the excess of the cost of an acquired business over the fair value of the identifiable assets acquired net of liabilities assumed. Goodwill is measured at cost less accumulated impairment losses and is not amortized. Goodwill is tested for impairment on an annual basis or whenever facts or circumstances indicate that the carrying amount may exceed its recoverable amount.

The Company performed its annual test for goodwill impairment at December 31, 2019. The Company utilized a five-year cash flow forecast using the annual budget approved by the Board of Directors as a basis for such forecasts. Cash flow forecasts beyond that of the budget were prepared using a stable growth rate for future periods. These forecasts were based on historical data and future trends expected by the Company. The Company's valuation model also takes into account working capital and capital investments required to maintain the condition of the assets. Forecasted cash flows were discounted using an after-tax rate of 30%.

Based on the impairment tests, the value in-use of the CGU to which goodwill is applicable is less than the carrying amount. As a result goodwill of \$1,050,459 was impaired in the current year. No provision for impairment of goodwill was made in 2018 or 2017 (Note 24).

**Income taxes**

The Company follows the liability method of accounting for income taxes. Under this method, deferred income taxes are provided on differences between the financial reporting and income tax bases of assets and liabilities and on income tax losses available to be carried forward to future years for tax purposes. Deferred income taxes are measured using the substantively enacted tax rates and laws that are expected to be in effect when the differences are expected to reverse. Deferred tax assets are only recognized if the amount is expected to be realized in the future.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

**Revenue recognition**

Revenue is measured based on the consideration specified in a contract with a customer and excludes amounts collected on behalf of third parties. The Company recognizes revenue when it transfers control over a product or service to a customer.

**Sale of goods**

Revenue from the sale of goods is recognized, net of discounts and customer rebates, at the point in time the transfer of control of the related products has taken place as specified in the sales contract and collectability is reasonably assured.

**Service revenue**

The Company provides contract services, primarily in the form of non-recurring revenue ("NRE") where control is passed to the customer over time. The contracts generally provide agreed upon milestones for customer payment which include but are not limited to the delivery of sample products, design reports and test reports. The customer makes payment when it has approved the delivery of the milestone. The Company must determine if the contract is made up of a series of independent performance obligations or a single performance obligation. Where NRE contracts contain multiple performance obligations for which a standalone transaction price can be assessed, revenue is recognized as each performance obligation is satisfied. Where NRE contracts contain a single performance obligation to be settled over time, revenue is recognized progressively based on the output method.

**Other income**

**Interest income**

Interest income on cash is recognized as earned using the effective interest method.

**Research and Development Credits**

Through DenseLight, the Company was eligible to receive cash credits for certain qualifying research and development expenses based on actual spending over a three year period, with an expectation that the credits will not exceed a certain dollar value over a three year period. Recoverable amounts at December 31, 2018 and 2017 related to expenditures at DenseLight. Recoverable amount at December 31, 2019 was nil because the Company sold DenseLight on November 8, 2019.

**Intangible assets**

**Research and development costs**

Research costs are expensed in the year incurred. Development costs are also expensed in the year incurred unless the Company believes a development project meets IFRS criteria as set out in IAS 38, *Intangible Assets*, for deferral and amortization. IAS 38 requires all research costs be charged to expense while development costs are capitalised only after technical and commercial feasibility of the asset for sale or use have been established. This means that the entity must intend and be able to complete the intangible asset and either use it or sell it and be able to demonstrate how the asset will generate future economic benefits. Development costs are tested for impairment whenever events or changes indicate that its carrying amount may not be recoverable.

**In-Process Research and Development**

Under IFRS, in-process research and development ("IPR&D") acquired in a business combination that meets the definition of an intangible asset is capitalized with amortization commencing when the asset is ready for use (i.e., when development is complete). The Company acquired \$714,000 of IPR&D when it acquired BB Photonics Inc. in 2016. During 2019, management observed indicators that suggested that IPR&D may be impaired. IPR&D acquired with BB Photonics was no longer useable with the novel POET Interposer platform. BB Photonics IPR&D would not generate sufficient cash flow to support its value in use. Management completed an assessment of IPR&D and determined that the amount of \$714,000 was impaired. An impairment loss of \$714,000 was recorded during the year ended December 31, 2019. No impairment was recorded in 2018 or 2017 (Note 10).



## 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

**Customer relationships**

Intangible assets include customer relationships acquired with the acquisition of DenseLight. Customer relationships is an externally acquired intangible asset and is measured at cost less accumulated amortization and any accumulated impairment losses. Customer relationships are amortized on a straight-line basis over their estimated useful lives and is tested for impairment whenever events or changes indicate that their carrying amount may not be recoverable. The useful life of customer relationships was determined to be 5 years. Customer relations was nil at December 31, 2019 as because the asset was disposed of with the sale of DenseLight on November 8, 2019.

**Stock-based compensation**

Stock options and warrants awarded to non employees are measured using the fair value of the goods or services received unless that fair value cannot be estimated reliably, in which case measurement is based on the fair value of the stock options. Stock options and warrants awarded to employees are accounted for using the fair value method. The fair value of such stock options and warrants granted is recognized as an expense on a proportionate basis consistent with the vesting features of each tranche of the grant. The fair value is calculated using the Black-Scholes option pricing model with assumptions applicable at the date of grant.

**Income (loss) per share**

Basic income (loss) per share is calculated by dividing net income (loss) by the weighted average number of common shares outstanding during the year. Diluted income (loss) per share is calculated by dividing net income (loss) by the weighted average number of common shares outstanding during the year after giving effect to potentially dilutive financial instruments. The dilutive effect of stock options and warrants is determined using the treasury stock method.

## 3. RECENT ACCOUNTING PRONOUNCEMENTS

**Recently adopted accounting policy**

IFRS 16, Leases ("IFRS 16") sets out the principles for the recognition, measurement, presentation and disclosure of leases for both parties to a contract, the customer (lessee) and the supplier (lessor). This replaces IAS 17, Leases ("IAS 17") and related Interpretations. IFRS 16 provides revised guidance on identifying a lease and for separating lease and non-lease components of a contract. IFRS 16 introduces a single accounting model for all lessees and requires a lessee to recognize right of use assets and lease liabilities for leases with terms of more than 12 months, unless the underlying asset is of low value, and depreciation of lease assets is reported separately from interest on lease liabilities in the income statement. Under IFRS 16, lessor accounting for operating and finance leases will remain substantially unchanged. IFRS 16 is effective for annual periods beginning on or after January 1, 2019, with earlier application permitted for entities that apply IFRS 15, Revenue from Contracts with Customers. The Company adopted this new standard using the modified retrospective method on January 1, 2019. The adoption of IFRS 16, resulted in a right of use asset and liability of \$1,127,534. The carrying value of the right of use asset and lease liability relating to Denselight were disposed of upon the sale of DenseLight on November 8, 2019 (notes 9 and 23).

## 4. ACCOUNTS RECEIVABLE

The carrying amounts of accounts receivable approximate their fair value and are originally denominated in Singapore dollars before conversion to US dollars at December 31:

		2019		2018		2017	
Product sales	United States dollar	\$	-	\$	713,744	\$	493,925
Product sales	Singapore dollar		-		273,815		-
Loss allowance			-		(40,615)		-
		\$	-	\$	946,944	\$	493,925

POET TECHNOLOGIES INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
(Expressed in US Dollars)

4. ACCOUNTS RECEIVABLE (Continued)

In determining the recoverability of a trade receivable, the Company considers any change in the credit quality of the trade receivable from the date credit was initially granted up to the reporting date. The trade receivables that are neither past due nor impaired relates to customers that the company has assessed to be creditworthy based on the credit evaluation process performed by management which considers both customers' overall credit profile and its payment history with the Company. The loss allowance is determined in accordance IFRS 9 (Note 18). Trade receivables at December 31, 2018 and 2017 related to DenseLight. Trade receivable is nil at December 31, 2019 because DenseLight was sold on November 8, 2019.

5. PREPAIDS AND OTHER CURRENT ASSETS

The following table reflects the details of prepaids and other current assets at December 31:

	2019		2018		2017
Sales tax recoverable and other current assets	\$ 81,265	\$	85,658	\$	119,482
Research and development credit	-		1,905,593		1,287,539
Security deposits on leased properties	-		233,983		228,170
Prepaid expenses	750,000		711,385		322,536
	\$ 831,265	\$	2,936,619	\$	1,957,727

Research and development credit, security deposit on leased properties and certain prepaid expenses were disposed of during the year upon the sale of DenseLight.

6. INVENTORY

The following table reflects the details of inventory at December 31:

	2019		2018		2017
Raw materials	\$ -	\$	98,370	\$	112,768
Finished goods	-		212,361		260,105
Work in process	-		126,102		151,709
	\$ -	\$	436,833	\$	524,582

In 2017, the Company recorded an inventory write-down of \$353,476. Raw materials related to products under development represented the most significant portion of the write-down.

The Company disposed of its inventory upon the sale of DenseLight on November 8, 2019.

7. PROPERTY AND EQUIPMENT

	Equipment not ready for use	Leasehold improvements	Machinery and equipment	Office equipment	Total
<b>Cost</b>					
Balance, January 1, 2017	\$ 602,830	\$ 667,342	\$ 9,734,885	\$ 314,817	\$ 11,319,874
Additions	806,182	-	113,433	50,182	969,797
Reclassification	(874,371)	-	874,371	-	-
Effect of changes in foreign exchange rates	46,433	-	72,779	8,914	128,126
Balance, December 31, 2017	581,074	667,342	10,795,468	373,913	12,417,797
Additions	3,667,894	-	-	50,258	3,718,152
Reclassification <sup>(1)</sup>	(1,086,895)	-	881,221	202,674	(3,000)
Impairment and disposals <sup>(1)</sup>	-	-	(611,875)	(3,665)	(615,540)
Effect of changes in foreign exchange rates	(19,920)	-	(46,829)	(1,739)	(68,488)
Balance, December 31, 2018	3,142,153	667,342	11,017,985	621,441	15,448,921
Additions	1,986,210	-	39,260	19,480	2,044,950
Disposals <sup>(2)</sup>	(4,388,762)	(667,342)	(8,198,519)	(555,688)	(13,810,311)
Effect of changes in foreign exchange rates	24,741	-	14,529	-	39,270
Balance, December 31, 2019	\$ 764,342	\$ -	\$ 2,873,255	\$ 85,233	\$ 3,722,830

POET TECHNOLOGIES INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
(Expressed in US Dollars)

7. PROPERTY AND EQUIPMENT (Continued)

**Accumulated Depreciation**

Balance, January 1, 2017	-	83,189	1,808,308	64,167	1,955,664
Depreciation for the year	-	133,499	1,857,474	192,990	2,183,963
Balance, December 31, 2017	-	216,688	3,665,782	257,157	4,139,627
Depreciation for the year	-	133,809	2,201,133	133,662	2,468,604
Impairment and disposals (1)	-	-	(455,158)	(3,665)	(458,823)
Balance, December 31, 2018	-	350,497	5,411,757	387,154	6,149,408
Depreciation for the year	-	-	144,337	22,005	166,342
Disposals (2)	-	(350,497)	(5,044,288)	(341,195)	(5,735,980)
Balance, December 31, 2019	-	-	511,806	67,964	579,770

**Carrying Amounts**

At December 31, 2017	\$	581,074	\$	450,654	\$	7,129,686	\$	116,756	\$	8,278,170
At December 31, 2018	\$	3,142,153	\$	316,845	\$	5,606,228	\$	234,287	\$	9,299,513
At December 31, 2019	\$	764,342	\$	-	\$	2,361,449	\$	17,269	\$	3,143,060

- (1) During 2018, \$3,000 relating to certain property and equipment were reclassified to non-current assets held for sale and was sold in December 2018 while \$156,717 was recorded as an impairment loss and was included in discontinued operations.
- (2) On November 8, 2019, the Company disposed of property and equipment used in the operations DenseLight.

8. PATENTS AND LICENSES

**Cost**

Balance, January 1, 2017				\$	609,887
Additions					60,543
Balance, December 31, 2017					670,430
Additions					67,608
Effect of changes in foreign exchange rates					(352)
Balance, December 31, 2018					737,686
Additions					77,037
Disposals (1)					(29,696)
Balance, December 31, 2019					785,027

**Accumulated Amortization**

Balance, January 1, 2017					160,211
Amortization					53,969
Balance, December 31, 2017					214,180
Amortization					56,792
Balance, December 31, 2018					270,972
Amortization					61,671
Balance, December 31, 2019					332,643

**Carrying Amounts**

At December 31, 2017	\$	456,250
At December 31, 2018	\$	466,714
At December 31, 2019	\$	452,384

- (1) On November 8, 2019, the Company disposed of certain patents unrelated to the Company's technology on the sale of DenseLight.

9. RIGHT OF USE ASSET AND LEASE LIABILITY

On January 1, 2019, the Company adopted IFRS, 16 Leases. Upon adoption of IFRS 16, the Company recognized a lease liability and right of use asset relating to new leases entered into on February 15, 2019 related to DenseLight, and November 1, 2019 related to PTS. The lease liability was measured at the present value of the remaining lease payments, discounted using the Company's incremental borrowing rate of 12%.

Right of use asset	Building
<b>Cost</b>	
Balance, January 1, 2019	\$ -
Additions	1,127,534
Disposal <sup>(1)</sup>	(892,300)
Effect of changes in foreign exchange rates	2,966
<b>Balance, December 31, 2019</b>	<b>238,200</b>
<b>Accumulated Amortization</b>	
Balance, January 1, 2019	-
Amortization	15,683
<b>Balance, December 31, 2019</b>	<b>15,683</b>
<b>Carrying Amounts</b>	
At December 31, 2019	\$ 222,517
<b>Lease liability</b>	
Balance, January 1, 2019	\$ -
Additions	1,127,534
Interest expense	4,705
Interest included in discontinued operations	74,494
Lease payments	(19,162)
Lease payments included in discontinued operations	(258,460)
Disposal <sup>(1)</sup>	(695,733)
Effect of changes in foreign exchange rates	(9,620)
<b>Balance, December 31, 2019</b>	<b>\$ 223,758</b>

(1) The Company disposed of \$892,000 of right of use asset and \$695,733 of lease liability on November 8, 2019 with the sale of DenseLight (Note 23).

10. INTANGIBLE ASSETS

	Technology	Customer Relationships	Total
<b>Cost</b>			
Balance, December 31, 2017 and 2018	\$ 714,000	\$ 186,131	\$ 900,131
Impairment	(714,000)	-	(714,000)
Disposals <sup>(1)</sup>	-	(186,131)	(186,131)
<b>Balance, December 31, 2019</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Accumulated Amortization</b>			
Balance, January 1, 2017	-	23,266	23,266
Amortization for the year	-	37,228	37,228
Balance, December 31, 2017	-	60,494	60,494
Amortization for the year	-	37,228	37,228
Balance, December 31, 2018	-	97,722	97,722
Disposals <sup>(1)</sup>	-	(97,722)	(97,722)
<b>Balance, December 31, 2019</b>	<b>-</b>	<b>-</b>	<b>-</b>

POET TECHNOLOGIES INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
(Expressed in US Dollars)

10. INTANGIBLE ASSETS (Continued)

Carrying Amounts

At December 31, 2017	\$	714,000	\$	125,637	\$	839,637
At December 31, 2018	\$	714,000	\$	88,409	\$	802,409
At December 31, 2019	\$	-	\$	-	\$	-

(1) The Company disposed of its customer relationships intangible assets and related amortization on November 8, 2019 with the sale of DenseLight (Note 23).

11. ACCOUNTS PAYABLE AND ACCRUED LIABILITIES

Accounts payable and accrued liabilities at December 31 was as follows:

	2019	2018	2017
Trade payables	\$ 1,507,644	\$ 2,269,845	\$ 504,229
Payroll related liabilities	44,677	595,720	112,913
Accrued liabilities	173,387	174,857	193,451
	\$ 1,725,708	\$ 3,040,422	\$ 810,593

12. CONVERTIBLE DEBENTURES, LOAN PAYABLE AND PROMISSORY NOTE

On April 1, 2019 the Company announced that it arranged for certain financing required to bridge the Company up to the sale of its DenseLight subsidiary.

Convertible Debentures

The first component of the financing consists of the issuance of up to \$10.5 million (CAD\$14 million) of unsecured convertible debentures (the "Convertible Debentures") of the Company. The Convertible Debentures were sold in multiple tranches, on a brokered private placement basis through the Company's financial advisors, IBK Capital. During the year the Company closed five tranches of the private placement of the Convertible Debentures that raised gross proceeds of \$3,729,921 (CAD\$4,988,292). The Convertible Debentures, bear interest at 12% per annum, compounded annually with 1% payable at the beginning of each month and mature two years from the date of issue. The Company paid \$377,072 (CAD\$499,462) in brokerage fees and other costs related to the closing of these five tranches.

The Convertible Debentures are convertible at the option of the holders thereof into units at any time after October 31, 2019 at a conversion price of CAD\$0.40 per unit for a total 12,470,730 units of the Company. Each unit will consist of one common share and one common share purchase warrant. Each common share purchase warrant will entitle the holder to purchase one common share of the Company at a price of CAD\$0.50 per share for a period of two years from the date upon which the convertible debenture is converted into units. Upon completing the sale of DenseLight, holders of Convertible Debentures will have the right to cause the Company to repurchase the Convertible Debentures at face value, subject to certain restrictions. The Convertible Debentures are governed by a trust indenture between the Company and TSX Trust Company as trustee.

Insiders of the Company subscribed for 14.3% or \$535,000 (CAD\$710,000) of the Convertible Debentures, including the Company's board of directors and senior management team. Insiders of IBK Capital subscribed for 4% or \$146,000 (CAD\$200,000) of the Convertible Debentures.

*IAS 32 Financial Instruments: Presentation* define these debt securities as compound financial instruments made up of both a liability component and an equity component. The debt components of the Convertible Debentures were fair valued using effective discount rates ranging from 28.74% to 29.71% which the Company determined would be the interest rate of the debts without a conversion feature. The difference between the fair value of the debt component and the loan is allocated to the equity component and is included in shareholders' equity.

## 12. CONVERTIBLE DEBENTURES, LOAN PAYABLE AND PROMISSORY NOTE (Continued)

Because the Convertible Debentures are denominated in Canadian dollars and the conversion price is also denominated in Canadian dollars, the number of equity instruments that would be issued upon exercise of the convertible debentures are fixed. As a result, the equity component of the convertible debentures will not be periodically remeasured.

The following table reflects the details of convertible debentures:

Convertible Debentures	Loan	Equity Component	Accretion	Debt Component
Issued April 3, 2019 (net of issue costs)	\$ 1,293,519	\$ (242,004)	\$ 128,240	\$ 1,179,755
Issued May 3, 2019 (net of issue costs)	979,256	(183,317)	84,708	880,647
Issued June 3, 2019 (net of issue costs)	582,356	(109,017)	42,855	516,194
Issued August 2, 2019 (net of issue costs)	374,753	(70,154)	19,690	324,289
Issued September 19, 2019 (net of issue costs)	122,965	(23,019)	5,336	105,282
Effect of foreign exchange rate changes	-	-	-	82,866
Balance December 31, 2019	\$ 3,352,849	\$ (627,511)	\$ 280,829	\$ 3,089,033

**Loan Payable and Promissory Note**

The second component of the financing consisted of a credit facility (the "Bridge Loan") provided by Espresso Capital Ltd which granted the Company access to a maximum \$5,000,000. The Company signed the loan documents on April 18, 2019 and was advanced \$3,100,000 shortly thereafter.

Funds drawn on the Credit Facility bear interest at a rate of 17.25% per annum (the "Interest Rate"), calculated daily from the date of each advance until the earlier of the due date of each such advance, if any, and December 31, 2019 (the "Maturity Date"). The Interest Rate is comprised of 15% cash interest and 2.25% deferred interest. Per the agreement, the interest rate was retroactively increased to 19.25% because the Company did not consummate the sale of Denselight by October 15, 2019.

The Company paid \$147,077 in costs related to the Bridge Loan. Additionally, the Company issued to Espresso Capital Ltd, warrants for the purchase of 3,289,500 common shares at a price of CAD\$0.35 per share. The Warrants expire on April 18, 2020. The fair value of the warrants was estimated on the date of issue using the Black-Scholes option pricing model with the following assumptions: volatility of 78.91%, interest rate of 1.62% and an expected life of 1 year. The estimated fair value assigned to the warrants was \$221,620. The total cost of \$368,697 along with the foreign exchange impact of \$3,543 was deferred and charged against the Bridge Loan and subsequently amortized over the life of the Bridge Loan. The Bridge loan was repaid on November 8, 2019.

Additionally, on August 30, 2019, the Company signed a term promissory note (the "Promissory Note") for up-to \$1,000,000 with Century Prosper Investment Corporation (the "Lender"). The Promissory Note bears interest at 15% per annum. The Promissory Note and accrued interest are repayable on the six-month anniversary of each advance. At the option of the Lender, the advances and accrued interest may be repaid in full five days after the sale of the Company's Denselight subsidiary. The Company was advanced \$900,000 on this Promissory Note. The \$900,000 advance and related interest of \$17,160 were repaid on November 8, 2019.

POET TECHNOLOGIES INC.

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13. SHARE CAPITAL

(a) AUTHORIZED

Unlimited number of common shares  
One special voting share

(b) COMMON SHARES ISSUED

	Number of Shares	Amount
Balance, January 1, 2017	259,333,853	\$ 103,357,862
Funds from the exercise of stock options	685,000	123,528
Fair value of stock options exercised	-	134,831
Balance, December 31, 2017	260,018,853	103,616,221
Common shares issued on public offering	25,090,700	10,663,548
Share issue costs	-	(1,131,990)
Fair value of warrants issued on public offering	-	(2,286,426)
Fair value of compensation options issued to brokers	-	(479,204)
Funds from the exercise of stock options	372,250	87,974
Fair value of stock options exercised	-	82,330
Funds from the exercise of warrants and compensation warrants	2,600,500	1,028,471
Fair value of warrants and compensation warrants exercised	-	447,270
Balance, December 31, 2018	288,082,303	112,028,194
Funds from the exercise of stock options	281,250	60,028
Fair value of stock options exercised	-	55,950
Balance, December 31, 2019	288,363,553	\$ 112,144,172

On March 21, 2018, the Company completed a brokered "bought deal" public offering of 25,090,700 units at a price of \$0.425 (CAD\$0.55) per unit for gross proceeds of \$10,663,548 (CAD\$13,799,885). Each unit consists of one common share and one-half common share purchase warrant. Each whole warrant entitles the holder to purchase one common share of the Company at a price of \$0.58 (CAD\$0.75) per share until March 21, 2020. The broker was paid a cash commission of \$639,813 (6%) of the gross proceeds and received 1,505,442 compensation options. Each compensation option is exercisable into one compensation unit of the Company at a price of \$0.425 (CAD\$0.55) per compensation unit until March 21, 2020 with each compensation unit comprising one common share and one-half compensation share purchase warrant. Each whole compensation share purchase warrant entitles the broker to purchase one common share of the Company at a price of \$0.425 (CAD\$0.55) per share until March 21, 2020. The Company paid an additional \$492,177 in other costs related to this financing.

Certain management participated in the "bought-deal" public offering, by acquiring 281,000 units at a price of \$0.425 (CAD\$0.55) per unit for gross proceeds of \$119,425 (CAD\$154,550).

The fair value of the share purchase warrants and compensation options was estimated using the Black-Scholes option pricing model with the following weighted average assumptions: dividend yield of 0%, risk-free interest rate of 1.86%, volatility of 94.77%, and estimated life of 2 years. The estimated fair values assigned to the warrants and compensation options were \$2,286,426 and \$479,204, respectively.

POET TECHNOLOGIES INC.

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14. WARRANTS

The following table reflects the continuity of warrants:

	Historical Average Exercise Price	Number of Warrants/ Compensation options	Historical Fair value
Balance, January 1, 2017	\$ 0.79	8,369,233	\$ 2,013,747
Warrants issued	0.39	34,800,000	5,985,378
Warrants and compensation warrants exercised	(0.51)	(3,794,412)	(901,417)
Expired	(1.02)	(4,574,821)	(1,112,330)
Balance, December 31, 2017	0.39	34,800,000	5,985,378
Fair value of warrants issued on public offering	0.58	12,545,350	2,286,426
Historical fair value assigned to warrants exercised	0.39	(2,600,500)	(447,270)
Fair value of compensation options issued to brokers	0.43	1,505,442	479,204
Balance, December 31, 2018	0.44	46,250,292	8,303,738
Fair value of warrants issued as cost of debt financing	0.27	3,289,500	221,620
Balance, December 31, 2019	\$ 0.43	49,539,792	\$ 8,525,358

15. STOCK OPTIONS AND CONTRIBUTED SURPLUS

Stock Options

On June 21, 2018, shareholders of the Company approved amendments to the Company's fixed 20% stock option plan (as amended, previously referred to as the "2016 plan", now referred to as the "2018 Plan"). Under the 2018 Plan, the board of directors may grant options to acquire common shares of the Company to qualified directors, officers, employees and consultants. The 2018 Plan provides that the number of common shares issuable pursuant to options granted under the 2018 Plan and pursuant to other previously granted options is limited to 57,611,360 (the "Number Reserved"). Any subsequent increase in the Number Reserved must be approved by shareholders of the Company and cannot, at the time of the increase, exceed 20% of the number of issued and outstanding shares. The stock options vest in accordance with the policies determined by the Board of Directors from time to time consistent with the provisions of the 2018 Plan which grants discretion to the Board of Directors.

Stock option transactions and the number of stock options outstanding were as follows:

	Number of Options	Historical Weighted Average Exercise Price
Balance, January 1, 2017	23,805,500	\$ 0.96
Expired/cancelled	(5,455,209)	0.73
Exercised	(685,000)	0.19
Granted	15,425,000	0.24
Balance, December 31, 2017	33,090,291	0.68
Expired/cancelled	(1,944,791)	0.74
Exercised	(372,250)	0.26
Granted	13,690,479	0.34
Balance, December 31, 2018	44,463,729	0.58
Expired/cancelled <sup>(1)</sup>	(8,707,811)	0.90
Exercised	(281,250)	0.22
Granted	17,785,670	0.27
Balance, December 31, 2019	53,260,338	\$ 0.43

(1) 2,277,186 cancelled options related to staff employed at DenseLight



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15. STOCK OPTIONS AND CONTRIBUTED SURPLUS (Continued)

During the year ended December 31, 2019, the Company recorded stock-based compensation of \$2,888,141 (2018 - \$3,602,879, 2017 - \$2,958,358) relating to stock options that vested during the year. The stock-based compensation applicable to employees of DenseLight in the amount of \$(75,608) (2018 - \$419,238, 2017 - 216,566) has been allocated to discontinued operations (see note 23).

The stock options granted were valued using the Black-Scholes option pricing model using the following assumptions:

	2019	2018	2017
Weighted average exercise price	\$0.27	\$0.34	\$0.24
Weighted average risk-free interest rate	1.57%	2.17%	1.87%
Weighted average dividend yield	0%	0%	0%
Weighted average volatility	95.48%	103.47%	102.73%
Weighted average estimated life (in years)	10	10	10
Weighted average share price	\$0.27	\$0.34	\$0.24
Share price on the various grant dates:	\$0.24 - \$0.28	\$0.18 - \$0.40	\$0.21 - \$0.32
Weighted average fair value	\$0.24	\$0.30	\$0.22

The underlying expected volatility was determined by reference to the Company's historical share price movements, its dividend policy and dividend yield and past experience relating to the expected life of granted stock options.

The weighted average remaining contractual life and weighted average exercise price of options outstanding and of options exercisable as at December 31, 2019 are as follows:

Exercise Range	Options Outstanding			Options Exercisable		
	Number Outstanding	Historical Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (years)	Number Exercisable	Historical Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (years)
\$0.11 - \$0.20	693,750	\$ 0.19	6.14	693,750	\$ 0.19	6.14
\$0.21 - \$0.24	9,020,313	\$ 0.22	7.63	6,887,501	\$ 0.22	7.63
\$0.25 - \$0.29	10,888,259	\$ 0.25	9.18	3,504,188	\$ 0.25	9.18
\$0.30 - \$0.86	24,844,766	\$ 0.35	8.38	9,542,718	\$ 0.40	8.38
\$0.87 - \$1.64	7,813,250	\$ 1.13	0.57	7,789,813	\$ 1.13	0.57
	53,260,338	\$ 0.43	7.24	28,417,970	\$ 0.53	7.24

Contributed Surplus

The following table reflects the continuity of contributed surplus:

	Amount
Balance, January 1, 2017	\$ 29,062,874
Stock-based compensation	3,174,924
Fair value of stock options exercised	(134,831)
Balance, December 31, 2017	32,102,967
Stock-based compensation	4,022,117
Fair value of stock options exercised	(82,330)
Balance, December 31, 2018	36,042,754
Stock-based compensation	2,812,533
Fair value of stock options exercised	(55,950)
Balance, December 31, 2019	\$ 38,799,337

POET TECHNOLOGIES INC.

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16. INCOME (LOSS) PER SHARE

	2019	2018	2017
<b>Numerator</b>			
Net loss from continuing operations	\$ (11,434,632)	\$ (8,422,117)	\$ (7,908,851)
Net income (loss) from discontinued operations	\$ 5,481,757	\$ (7,900,662)	\$ (4,888,946)
Net loss	\$ (5,952,875)	\$ (16,322,779)	\$ (12,797,797)
<b>Denominator</b>			
Weighted average number of common shares outstanding	288,216,378	282,098,432	259,771,793
Weighted average number of common shares outstanding - diluted	288,216,378	282,098,432	259,771,793
Basic and diluted loss per share, continuing operations	\$ (0.04)	\$ (0.03)	\$ (0.03)
Basic and diluted income (loss) per share, discontinued operations	\$ 0.02	\$ (0.03)	\$ (0.02)
Basic and diluted loss per share	\$ (0.02)	\$ (0.06)	\$ (0.05)

The effect of common share purchase options, warrants, compensation warrants and shares to be issued on the net loss in 2019, 2018 and 2017 is not reflected as they are anti-dilutive.

17. COMMITMENTS AND CONTINGENCIES

The Company has operating leases on three facilities; head office located in Toronto, Canada, design and testing operations located in San Jose, California and operating facilities located in Singapore. The Company's design and testing operations terminated a lease on January 31, 2020. A new lease was initiated on April 1, 2020 and expires on March 31, 2025. The lease on the Company's operating facilities was initiated on November 1, 2019 and expires April 30, 2022. As at December 31, 2019, the Company's head office was on a month to month lease term.

Remaining annual lease payments to the lease expiration dates are as follows:

2020	\$ 170,759
2021 and beyond	494,732
	\$ 665,491

18. RELATED PARTY TRANSACTIONS

Compensation to key management personnel were as follows:

	2019	2018	2017
Salaries	\$ 1,251,277	\$ 1,216,250	\$ 932,133
Share-based payments <sup>(1)</sup>	2,135,579	2,449,683	2,110,773
Total	\$ 3,386,856	\$ 3,665,933	\$ 3,042,906

(1) Share-based payments are the fair value of options granted to key management personnel and expensed during the various years as calculated using the Black-Scholes model.

All transactions with related parties have occurred in the normal course of operations and are measured at the exchange amounts, which are the amounts of consideration established and agreed to by the related parties.

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19. SEGMENT INFORMATION

The Company and its subsidiaries operate in a single segment; the design, manufacture and sale of semi-conductor products and services for commercial applications. The Company's operating and reporting segment reflects the management reporting structure of the organization and the manner in which the chief operating decision maker regularly assesses information for decision making purposes, including the allocation of resources. A summary of the Company's operations is below:

**OPEL, ODIS and PTS**

OPEL, ODIS and PTS are the developers of the POET platform semiconductor process IP for monolithic fabrication of integrated circuit devices containing both electronic and optical elements on a single die.

**BB Photonics**

BB Photonics develops photonic integrated components for the datacom and telecom markets utilizing embedded dielectric technology that enables the low-cost integration of active and passive devices into photonic integrated circuits.

On a consolidated basis, the Company operates geographically in Singapore, the United States and Canada. Geographical information is as follows:

2019					
As of December 31,	Singapore	US	Canada	Consolidated	
Current assets	\$ 86,849	\$ 22,523	\$ 20,150,022	\$ 20,259,394	
Property and equipment	3,055,906	87,154	-	3,143,060	
Patents and licenses	-	452,384	-	452,384	
Right of use asset	222,517	-	-	222,517	
<b>Total Assets</b>	<b>\$ 3,365,272</b>	<b>\$ 562,061</b>	<b>\$ 20,150,022</b>	<b>\$ 24,077,355</b>	
Year Ended December 31,	Singapore	US	Canada	Consolidate	
Selling, marketing and administration	\$ 217,416	\$ 5,126,260	\$ 1,353,711	\$ 6,697,387	
Research and development	218,900	107,161	1,757,754	2,083,815	
Impairment of long lived assets	-	-	1,764,459	1,764,459	
Interest expense	4,705	-	815,206	819,911	
Amortization of debt issuance costs	-	-	372,340	372,340	
Other income including interest income	-	-	(10,540)	(10,540)	
Income taxes	-	(292,740)	-	(292,740)	
Net loss from continuing operations, net of taxes	(441,021)	(4,940,681)	(4,288,471)	(11,434,632)	
Income from discontinued operations, net of taxes	5,481,757	-	-	5,481,757	
<b>Net income (loss)</b>	<b>\$ 5,040,736</b>	<b>\$ (4,940,681)</b>	<b>\$ (4,288,471)</b>	<b>\$ (5,952,875)</b>	
2018					
As of December 31,	Singapore	US	Canada	Consolidated	
Current assets	\$ 4,283,008	\$ 302,405	\$ 2,302,851	\$ 6,888,264	
Property and equipment	9,136,694	162,819	-	9,299,513	
Patents and licenses	18,464	448,250	-	466,714	
Goodwill and intangible assets	6,718,953	1,764,459	-	8,483,412	
<b>Total Assets</b>	<b>\$ 20,157,119</b>	<b>\$ 2,677,933</b>	<b>\$ 2,302,851</b>	<b>\$ 25,137,903</b>	

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19. SEGMENT INFORMATION (Continued)

Year Ended December 31,	Singapore	US	Canada	Consolidated
Selling, marketing and administration	\$ -	\$ 5,169,619	\$ 1,004,256	\$ 6,173,875
Research and development	-	1,715,154	547,322	2,262,476
Other income including interest	-	-	(14,234)	(14,234)
Net loss from continuing operations	-	(6,884,773)	(1,537,344)	(8,422,117)
Loss from discontinued operations, net of taxes	(7,900,662)	-	-	(7,900,662)
Net loss	\$ (7,900,662)	\$ (6,884,773)	\$ (1,537,344)	\$ (16,322,779)

2017

As of December 31,	Singapore	US	Canada	Consolidated
Current assets	\$ 3,190,298	\$ 4,621,318	\$ 139,096	\$ 7,950,712
Property and equipment	8,018,900	259,270	-	8,278,170
Patents and licenses	18,816	437,434	-	456,250
Goodwill and intangible assets	6,756,181	1,764,459	-	8,520,640
Total Assets	\$ 17,984,195	\$ 7,082,481	\$ 139,096	\$ 25,205,772

The Year Ended December 31,	Singapore	US	Canada	Consolidated
Selling, marketing and administration	\$ -	\$ 4,837,859	\$ 1,049,850	\$ 5,887,709
Research and development	-	1,719,734	319,687	2,039,421
Other income including interest	-	-	(18,279)	(18,279)
Net loss from continuing operations	-	(6,557,593)	(1,351,258)	(7,908,851)
Loss from discontinued operations, net of taxes	(4,888,946)	-	-	(4,888,946)
Net loss	\$ (4,888,946)	\$ (6,557,593)	\$ (1,351,258)	\$ (12,797,797)

20. FINANCIAL INSTRUMENTS AND RISK MANAGEMENT

The Company's financial instruments consist of cash and cash equivalents, accounts receivable, receivable from the sale of discontinued operations, convertible debentures, and accounts payable and accrued liabilities. Unless otherwise noted, it is management's opinion that the Company is not exposed to significant interest risk arising from these financial instruments. The Company estimates that the fair value of these instruments approximates fair value due to their short term nature.

The Company has classified financial assets and (liabilities) as follows at December 31:

	2019	2018	2017
Fair value through profit or loss, measured at amortized cost:			
Cash and cash equivalents	\$ 1,428,129	\$ 2,567,868	\$ 4,974,478
Accounts receivable, measured at amortized cost:			
Accounts receivable	\$ -	\$ 946,944	\$ 493,925
Receivable from the sale of discontinued operations	\$ 18,000,000	-	-
Other liabilities, measured at amortized cost:			
Accounts payable and accrued liabilities	\$ (1,725,708)	\$ (3,040,422)	\$ (810,593)
Convertible debentures	\$ (3,089,033)	\$ -	\$ -

**20. FINANCIAL INSTRUMENTS AND RISK MANAGEMENT (Continued)****Credit Risk**

The Company is exposed to credit risk associated with its accounts receivable. The Company has accounts receivable from both governmental and non-governmental agencies. Credit risk is minimized substantially by ensuring the credit worthiness of the entities with which it carries on business. Credit terms are provided on a case by case basis. The Company has not experienced any significant instances of non-payment from its customers.

The Company's accounts receivable ageing at December 31 was as follows:

	2019	2018	2017
Current	\$ -	\$ 892,343	\$ 330,731
31 - 60 days	-	34,331	56,094
61 - 90 days	-	60,885	-
> 90 days	-	-	107,100
Expected credit losses <sup>(1)</sup>	-	(40,615)	-
	\$ -	\$ 946,944	\$ 493,925

(1) The Company applies IFRS 9 simplified approach to measuring expected credit losses using a lifetime expected credit loss allowance for trade receivables.

**Exchange Rate Risk**

The functional currency of each of the entities included in the accompanying consolidated financial statements is the local currency where the entity is domiciled. Functional currencies include the US, Singapore and Canadian dollar. Most transactions within the entities are conducted in functional currencies. As such, none of the entities included in the consolidated financial statements engage in hedging activities. The Company is exposed to a foreign currency risk with the Canadian and Singapore dollar. A 10% change in the Canadian and Singapore dollar would increase or decrease other comprehensive loss by \$290,950.

**Liquidity Risk**

The Company currently does not maintain credit facilities. The Company's existing cash and cash resources are considered sufficient to fund operating and investing activities beyond one year from the issuance of these consolidated financial statements. The Company may, however, need to seek additional financing in the future.

**21. CAPITAL MANAGEMENT**

In the management of capital, the Company includes shareholders' equity (excluding accumulated other comprehensive loss and deficit) and cash. The components of capital on December 31, 2019 were:

Cash and cash equivalents and receivable from the sale of discontinued operations	\$ 19,428,129
Shareholders' equity	\$ 160,096,378

The Company's objective in managing capital is to ensure that financial flexibility is present to increase shareholder value through growth and responding to changes in economic and/or market conditions; to maintain a strong capital base so as to maintain investor, creditor and market confidence and to sustain future development of the business and to safeguard the Company's ability to obtain financing should the need arise.

In maintaining its capital, the Company has a strict investment policy which includes investing its surplus capital only in highly liquid, highly rated financial instruments.

The Company reviews its capital management approach on an ongoing basis.

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22. EXPENSES

Research and development costs can be analysed as follows:

	2019		2018		2017
Wages and benefits	\$ 874,673	\$	822,258	\$	703,759
Subcontract fees	834,598		888,566		1,044,936
Stock-based compensation	237,311		395,468		218,896
Supplies	137,233		156,184		71,830
	<b>\$ 2,083,815</b>	\$	<b>2,262,476</b>	\$	<b>2,039,421</b>

Selling, marketing and administration costs can be analysed as follows:

Stock-based compensation	\$ 2,650,830	\$	3,207,411	\$	2,739,462
Wages and benefits	1,619,719		1,433,286		1,443,656
Professional fees	1,120,805		735,604		597,865
General expenses	813,951		392,901		598,600
Depreciation and amortization	243,674		153,244		182,252
Management and consulting fees	154,357		155,169		229,577
Rent and facility costs	94,051		96,260		96,297
	<b>\$ 6,697,387</b>	\$	<b>6,173,875</b>	\$	<b>5,887,709</b>

23. DISCONTINUED OPERATIONS

On February 3, 2019, management committed to a plan to sell its subsidiary, DenseLight. The decision was taken in line with a strategy to focus on the Company's opportunities related to its Optical Interposer. Management determined that the divestiture of DenseLight would immediately reduce the Company's operating losses and cash burn, while allowing the Company to pursue a "fab-light" strategy with a less capital-intensive business model that is focused on growing the Optical Interposer business through targeted investments in the design, development and sale of vertical market solutions. Consequently, after the plan and prior to the actual sale, all saleable assets and liabilities relating to DenseLight were classified as "Non-current assets held for sale" or "disposal group liabilities". An impairment assessment was done on the assets that were held for sale. It was determined that no assets were impaired either on the date management committed to a plan of sale or on November 8, 2019 when the sale was consummated.

On November 8, 2019, the Company sold 100% of the issued and outstanding shares of DenseLight for \$26,000,000. The Company received \$8,000,000 upon the consummation of the sale. The Company expects to receive the remaining \$18,000,000 over three tranches, with \$4,750,000 received on February 14, 2020 and \$8,250,000 received on March 30, 2020. The remaining \$5,000,000 is expected to be received on or before May 31, 2020. Shares were placed into escrow in the name of the Buyer, to be released to the Buyer upon receipt of the remaining payments. The Buyer assumed control of DenseLight on November 8, 2019 and will be responsible for all operations of DenseLight thenceforth. Upon closing, the Company recognized a gain on the sale of \$8,707,280. The Company received an additional \$2,000,000, in excess of the sale proceeds, with the most recently paid two tranches which was immediately paid to Oak Capital on behalf of the Buyer for due diligence, legal and other expenses.

Revenue and expenses, and gains and losses relating to the discontinued operations have been removed from the results of continuing operations and are shown as a single line item on the face of the consolidated statement of comprehensive loss. The operating results of the discontinued operations can be analysed as follows:

POET TECHNOLOGIES INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
(Expressed in US Dollars)

23. DISCONTINUED OPERATION (Continued)

Results of discontinued operations

	For the Period From January 1 to November 8, 2019		For the Year Ended December 31, 2017			
Revenue	\$	4,426,355	\$	3,888,185	\$	2,794,044
Cost of revenue		1,201,373		1,475,969		1,342,691
Gross margin		3,224,982		2,412,216		1,451,353
Operating expenses						
Research and development		5,677,222		6,430,328		3,403,452
Selling, marketing and administration		1,950,526		5,515,329		4,983,032
Interest expense		74,494		-		-
Impairment loss		-		156,717		-
Other income		(1,251,737)		(1,491,556)		(1,748,245)
Operating expenses		6,450,505		10,610,818		6,638,239
Loss from discontinued operations		(3,225,523)		(8,198,602)		(5,186,886)
Gain on sale of discontinued operations, net of taxes		8,707,280		-		-
Income tax recovery		-		(297,940)		(297,940)
Net income (loss), net of taxes	\$	5,481,757	\$	(7,900,662)	\$	(4,888,946)

Disaggregated Revenues

The Company disaggregates revenue by timing of revenue recognition, that is, at a point in time and revenue over time. Disaggregated revenue is as follows:

	For the Period From January 1 to November 8, 2019		For the Year Ended December 31, 2017			
Non-contract revenue (at a point in time) <sup>(1)(3)</sup>	\$	2,092,426	\$	3,261,518	\$	2,714,044
Contract revenue (revenue over time) <sup>(2)(3)</sup>		2,221,429		441,667		80,000
Contract revenue (at a point in time) <sup>(2)(3)</sup>		112,500		185,000		-
	\$	4,426,355	\$	3,888,185	\$	2,794,044

- (1) Revenue from the sale of products.
- (2) Revenue from long-term projects or non-recurring engineering (NRE).
- (3) All revenue was generated from the Singapore geographic region.

Revenue Contract Balances

	Contract			
	Receivables	Liabilities		
Opening balance, January 1, 2017	\$	-	\$	(20,000)
Revenues recognized		80,000		(60,000)
Changes due to payment, fulfillment of performance obligations or other		(40,000)		80,000
Balance, December 31, 2017	\$	40,000	\$	-
Revenues recognized		626,667		(626,667)
Changes due to payment, fulfillment of performance obligations or other		(606,667)		626,667

POET TECHNOLOGIES INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
(Expressed in US Dollars)

23. DISCONTINUED OPERATION (Continued)

	Receivables	Contract Liabilities
Balance, December 31, 2018	60,000	-
Revenues recognized	2,333,929	(2,333,929)
Changes due to payment, fulfillment of performance obligations or other	(1,293,929)	2,333,929
Balance, November 8, 2019	\$ 1,100,000	\$ -

Research and development costs included in discontinued operations can be analysed as follows:

	For the Period From January 1 to November 8, 2019		For the Year Ended December 31, 2017	
Wages and benefits	\$ 3,565,076	\$ 3,818,980	\$ 2,135,329	-
Supplies	1,412,572	2,070,495	1,118,011	-
Subcontract fees	728,457	400,000	-	-
Stock-based compensation	(28,883)	140,853	150,112	-
	\$ 5,677,222	\$ 6,430,328	\$ 3,403,452	-

Selling, marketing and administration costs included in discontinued operations can be analysed as follows:

Wages and benefits	\$ 887,860	\$ 1,034,715	\$ 1,131,322	-
Rent and facility costs	604,442	975,467	1,079,635	-
General expenses	458,465	785,635	585,637	-
Stock-based compensation	(46,725)	278,385	66,454	-
Professional fees	46,484	31,747	27,076	-
Depreciation and amortization	-	2,409,380	2,092,908	-
	\$ 1,950,526	\$ 5,515,329	\$ 4,983,032	-

Cash flows from (used in) discontinued operations

	2019	2018	2017
<b>CASH (USED IN) PROVIDED BY:</b>			
<b>OPERATING ACTIVITIES</b>			
Net loss	\$ 5,481,757	\$ (7,900,662)	\$ (4,888,946)
Adjustments for:			
Depreciation of property and equipment	-	2,372,152	2,055,680
Gain on sale of discontinued operations	(8,707,280)	-	-
Amortization of intangibles	-	37,228	37,228
Interest expense	74,494	-	-
Impairment loss	-	156,717	-
Stock-based compensation	(75,608)	419,238	216,566
Income tax recovery	-	(297,940)	(297,940)
Deferred rent	(1,825)	(21,992)	-
Expected credit loss	-	40,615	-
	(3,228,462)	(5,194,644)	(2,877,412)



POET TECHNOLOGIES INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
(Expressed in US Dollars)

23. DISCONTINUED OPERATION (Continued)

Net change in non-cash working capital accounts:			
Accounts receivable	584,902	(508,093)	(171,257)
Prepaid and other current assets	497,259	(949,401)	(927,685)
Inventory	(334,425)	78,733	663,992
Accounts payable and accrued liabilities	(470,378)	1,782,612	(616,289)
Cash flows from operating activities	(2,951,104)	(4,790,793)	(3,928,651)
INVESTING ACTIVITIES			
Proceeds from the sale of discontinued operations, net of cash given up (1)	7,519,126	-	-
Purchase of property and equipment (Note 7)	(1,599,272)	(3,467,992)	(912,774)
Purchase of patents and licenses (Note 8)	(11,231)	-	(18,815)
Cash flows from investing activities	5,908,623	(3,467,992)	(931,589)
FINANCING ACTIVITIES			
Payment of lease liability (Note 9)	(258,460)	-	-
Cash flows from financing activities	(258,460)	-	-
EFFECT OF EXCHANGE RATE CHANGES ON CASH	(14,010)	26,490	(65,338)
NET CHANGE IN CASH	\$ 2,685,049	\$ (8,232,295)	\$ (4,925,578)

Effect of Disposal on the Financial Position of the Group

Accounts receivable	\$ 396,037
Prepaid and other current assets	2,303,014
Inventory	774,404
Property and equipment	8,424,638
Right of use asset	880,577
Patents	29,696
Goodwill and customer list	6,718,953
Trade payables	(1,312,053)
Lease Liability	(695,733)
Deferred tax liability	(707,687)
Net assets disposed	\$ 16,811,846
(1) Consideration received in cash	\$ 8,000,000
(1) Cash given up	(480,874)
Consideration receivable	18,000,000
Net inflows	\$ 25,519,126

**POET TECHNOLOGIES INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
(Expressed in US Dollars)

**24. GOODWILL AND DEFERRED TAX LIABILITY**

On May 11 and June 22, 2016 the Company acquired DenseLight and BB photonics for \$10,500,000 and \$1,550,000 respectively. The all stock purchases were accomplished with the issuance of 13,611,150 common shares and 1,996,090 common shares of the Company at a price of \$0.7714 and \$0.777 per share, respectively. The purchase price in both acquisitions exceeded the net assets acquired which resulted in the difference being accounted for as goodwill on the consolidated statements of financial position.

The continuity of goodwill is as follows:

	DenseLight	BB Photonics	Total
Balance, December 31, 2017 and 2018	\$ 6,630,544	\$ 1,050,459	\$ 7,681,003
Impairment	-	(1,050,459)	(1,050,459)
Disposed on the sale of DenseLight	(6,630,544)	-	(6,630,544)
Balance, December 31, 2019	\$ -	\$ -	\$ -

Deferred tax liability was created on the date of purchase for both DenseLight and BB Photonics. The following is a continuity of deferred tax liability.

	DenseLight	BB Photonics	Total
Balance, January 1, 2017	\$ 1,303,567	\$ 292,740	\$ 1,596,307
Tax effect of amortization	(297,940)	-	(297,940)
Balance, December 31, 2017	1,005,627	292,740	1,298,367
Tax effect of amortization	(297,940)	-	(297,940)
Balance, December 31, 2018	707,687	292,740	1,000,427
Tax effect of Impairment	-	(292,740)	(292,740)
Disposed on the sale of DenseLight	(707,687)	-	(707,687)
Balance, December 31, 2019	\$ -	\$ -	\$ -

Included in the sale of DenseLight on November 8, 2019 was \$6,630,544 of goodwill and \$707,687 of deferred liability.

**25. INCOME TAXES**

The following table reconciles the expected income tax recovery at the Canadian statutory income tax rate of 26.5% for 2019 (2018 - 26.5%, 2017 - 26.5%) to the amounts recognized in operations.

For the Year Ended December 31,	2019	2018	2017
Net loss, continuing operations	\$ (11,727,372)	\$ (8,422,117)	\$ (7,908,851)
Net income (loss), discontinued operations	5,481,757	(8,198,602)	(5,186,886)
Net loss before taxes	\$ (6,245,615)	\$ (16,620,719)	\$ (13,095,737)
Expected current income tax recovery	1,655,088	4,404,491	3,470,370
Deferred tax recovery <sup>(2)</sup>	292,740	297,940	297,940
	1,947,828	4,702,431	3,768,310

POET TECHNOLOGIES INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
(Expressed in US Dollars)

25. INCOME TAXES (Continued)

For the Year Ended December 31,	2019	2018	2017
Adjustments to income tax recovery:			
Amounts not deductible for tax purposes	\$ (1,212,900)	\$ (1,065,900)	\$ (841,000)
Other non-deductible items	(173,000)	(509,900)	(463,000)
Deductible share and debt issuance costs	216,000	77,000	94,000
Non-taxable gain	2,307,000	-	-
Impact of US statutory income tax rate change <sup>(1)</sup>	-	-	(9,472,000)
Foreign tax differential	591,000	(592,000)	(69,000)
Non-recognizable permanent capital loss	(1,175,000)	-	-
Unusable foreign tax recoveries <sup>(3)</sup>	(7,040,081)	-	-
Unrecognized tax recovered (losses)	4,831,893	(2,313,691)	7,280,630
Income tax recovery recognized <sup>(2)</sup>	\$ 292,740	\$ 297,940	\$ 297,940

- (1) Due to the reduction of US corporate tax rates from 35% to 21%, the Company will not be able to apply \$9,472,000 against any future US taxes payable.
- (2) Deferred tax recovery and income tax recovery recognized for 2018 and 2017 are included Income (loss) from discontinued operations, net of taxes on the consolidated statements of operations and deficit.
- (3) Deferred tax assets applicable to DenseLight and no longer available to the Company.

The following table reflects future income tax assets at December 31:

	2019	2018	2017
Resource assets	\$ 1,024,271	\$ 1,024,271	\$ 1,024,271
Gross unamortized share issue costs	385,000	669,000	705,351
Canadian non-capital losses	16,545,000	12,431,000	11,100,672
Canadian capital losses	4,432,500	-	-
US non-capital losses	75,060,000	71,594,000	67,654,438
Singapore non-capital losses	378,000	46,894,000	43,671,200
	97,824,771	132,612,271	124,155,932
Unrecognized deferred tax assets	(97,824,771)	(132,612,271)	(124,155,932)
Deferred income tax assets recognized	\$ -	\$ -	\$ -

In accordance with Section 382 of the Internal Revenue Code, the usage of the Company's net operating loss carry forward related to the BB Photonics acquisition in 2016 of approximately \$928,000 could be subject to annual limitation since there was greater than 50% ownership change.

26. SUBSEQUENT EVENTS

On February 14, 2020 and March 30, 2020 the Company collected \$4,750,000 and \$8,250,000 respectively for a cumulative \$13,000,000 representing two tranches of an agreed three tranche payment plan for the outstanding balance due from DL Shanghai from the sale of DenseLight. The escrow agent transferred additional shares from escrow to the Buyer. The Buyer now directly holds a cumulative 81% of the shares of DenseLight. The Company collected an additional \$2,000,000, in excess of the sale proceeds, which was immediately paid to Oak Capital on behalf of the DL Shanghai for due diligence, legal and other expenses.

## DESCRIPTION OF SECURITIES

**General**

The Company is incorporated under the Business Corporations Act (Ontario) (the "OBCA"). The rights of holders of the Company's securities are governed by the laws of the Province of Ontario, including the OBCA, the applicable laws of Canada, the Company's Certificate and Articles of Continuance and all amendments thereto (the "Company's articles"), and the Company's Amended and Restated Bylaws, as amended (the "Company's bylaws"). The following summary of the rights of the share capital of the Company is not complete and is qualified in its entirety by reference to the Company's articles and the Company's bylaws, each of which are incorporated herein by reference as an exhibit to the Annual Report on Form 20-F (the "Form 20-F") of which this Exhibit 2 is a part.

**Common Shares and Special Voting Share**

**Authorization; Shares Issued and Outstanding.** The authorized capital of POET Technologies Inc. (the "Company") consists of an unlimited number of common shares, without par value, and one special voting share. The number of common shares that were issued and outstanding as of the last day of the fiscal year ended December 31, 2019 is provided on the cover of the Form 20-F, and the special voting share was not issued or outstanding. The common shares may be held in either certificated or uncertificated form.

**Voting Rights.** Holders of common shares are entitled to one vote per common share held thereby. The holder of the special voting share, if any, is entitled to a number of votes as is equal to the number of common shares that may be acquired upon exercise of the holder of the exchange rights attached to all outstanding shares of exchangeable common stock of the Company as of the close of business on the record date for the applicable meeting. The holders of common shares and the holder, if any, of the special voting share vote together as a single class on all matters, unless voting as a separate class is required by applicable law.

**Dividends and Other Distributions.** Pursuant to the Company's bylaws, holders of common shares and the special voting share are entitled to receive such dividends as may be declared by the board of directors of the Company and to receive the residual property and assets of the Company upon dissolution or winding-up. Any dividend that remains unclaimed after six years from the date on which the dividend was declared to be payable is forfeited and reverts to the Company.

**Rights and Preferences.** The common shares and the special voting share are not subject to any future call or assessment, and there are no pre-emptive, conversion or redemption rights or sinking fund provisions attached to such shares. For a description of other rights of the Company's common shareholders and a comparison to the rights available to common shareholders of U.S. companies, see "The rights of our shareholders may differ from the rights typically afforded to shareholders of a U.S. corporation." in Item 3.D. "Risk Factors" in the Form 20-F.

**Limitations on Rights to Own Securities.**

No share may be issued until it is fully paid.

Neither Canadian law nor the Company's articles or bylaws limit the right of a non-resident to hold or vote common shares of the Company, other than as provided in the Investment Canada Act (the "Investment Act"), as amended by the World Trade Organization Agreement Implementation Act (the "WTOA Act"). The Investment Act generally prohibits implementation of a direct reviewable investment by an individual, government or agency thereof, corporation, partnership, trust or joint venture that is not a "Canadian," as defined in the Investment Act (a "non-Canadian"), unless, after review, the minister responsible for the Investment Act is satisfied that the investment is likely to be of net benefit to Canada. An investment in the common shares of the Company by a non-Canadian (other than a "WTO Investor," as defined below) would be reviewable under the Investment Act if it were an investment to acquire direct control of the Company, and the value of the assets of the Company were CAD\$5.0 million or more (provided that immediately prior to the implementation of the investment the Company was not controlled by WTO Investors). An investment in common shares of the Company by a WTO Investor (or by a non-Canadian other than a WTO Investor if, immediately prior to the implementation of the investment the Company was controlled by WTO Investors) would be reviewable under the Investment Act if it were an investment to acquire direct control of the Company and the value of the assets of the Company equaled or exceeded certain threshold amounts determined on an annual basis.

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The threshold for a pre-closing net benefit review depends on whether the purchaser is: (a) controlled by a person or entity from a member of the WTO; (b) a state-owned enterprise (SOE); or (c) from a country considered a "Trade Agreement Investor" under the Investment Act. A different threshold also applies if the Canadian business carries on a cultural business. The 2020 threshold for WTO investors that are SOEs will be \$428 million based on the book value of the Canadian business' assets, up from \$416 million in 2019. The 2020 thresholds for review for direct acquisitions of control of Canadian businesses by private sector investor WTO investors (\$1 billion) and private sector trade-agreement investors (\$1.5 billion) remain the same and are both based on the "enterprise value" of the Canadian business being acquired.

A non-Canadian, whether a WTO Investor or otherwise, would be deemed to acquire control of the Company for purposes of the Investment Act if he or she acquired a majority of the common shares of the Company. The acquisition of less than a majority, but at least one-third of the shares, would be presumed to be an acquisition of control of the Company, unless it could be established that the Company is not controlled in fact by the acquirer through the ownership of the shares. In general, an individual is a WTO Investor if he or she is a "national" of a country (other than Canada) that is a member of the WTO ("WTO Member") or has a right of permanent residence in a WTO Member. A corporation or other entity will be a "WTO Investor" if it is a "WTO Investor-controlled entity," pursuant to detailed rules set out in the Investment Act. The U.S. is a WTO Member. Certain transactions involving Company common shares would be exempt from the Investment Act, including:

- an acquisition of the shares if the acquisition were made in the ordinary course of that person's business as a trader or dealer in securities;
  - an acquisition of control of the Company in connection with the realization of a security interest granted for a loan or other financial assistance and not for any purpose related to the provisions of the Investment Act; and
  - an acquisition of control of the Company by reason of an amalgamation, merger, consolidation or corporate reorganization, following which the ultimate direct or indirect control in fact of the Company, through the ownership of voting interests, remains unchanged.
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**Stockholder Ownership Disclosure Threshold in Bylaws.** Neither the Company's articles nor the Company's bylaws contains a provision governing the ownership threshold above which shareholder ownership must be disclosed. Pursuant to securities legislation, an Early Warning Report and an Insider Report must be filed if a shareholder obtains ownership on a partially diluted basis of 10% or greater of the Company.

**Procedures to Change the Rights of Shareholders.** In order to change the rights of Company shareholders with respect to certain fundamental changes as described in Section 168 of the OBCA, the Company would need to amend the Company's articles to effect the change. Such an amendment would require the approval of holders of two-thirds of the votes of the Company's common shares, and any other shares carrying the right to vote at any general meeting of the shareholders of the Company, cast at a duly called special meeting.

**Impediments to Change of Control.** In 2016, the Canadian Securities Administrators (the "CSA") enacted amendments (the "Bid Amendments") to the Take-Over Bid Regime. The Bid Amendments, which are very significant, are contained in National Instrument (NI) 62-104.

The Bid Amendments were intended to enhance the quality and integrity of the take-over bid regime and rebalance the current dynamics among offerors, offeree issuer boards of directors ("Offeree Boards"), and offeree issuer security holders by (i) facilitating the ability of offeree issuer security holders to make voluntary, informed and coordinated tender decisions, and (ii) providing the Offeree Board with additional time and discretion when responding to a take-over bid.

Specifically, the Bid Amendments require that all non-exempt take-over bids (1) receive tenders of more than 50% of the outstanding securities of the class that are subject to the bid, excluding securities beneficially owned, or over which control or direction is exercised, by the offeror or by any person acting jointly or in concert with the offeror (the Minimum Tender Requirement); (2) be extended by the offeror for an additional 10 days after the Minimum Tender Requirement has been achieved and all other terms and conditions of the bid have been complied with or waived (the 10 Day Extension Requirement); and (3) remain open for a minimum deposit period of 105 days (the Minimum 105 Day Bid Period) unless (a) the offeree board states in a news release a shorter deposit period for the bid of not less than 35 days, in which case all contemporaneous take-over bids must remain open for at least the stated shorter deposit period, or (b) the issuer issues a news release that it intends to effect, pursuant to an agreement or otherwise, a specified alternative transaction, in which case all contemporaneous take-over bids must remain open for a deposit period of at least 35 days.

The Bid Amendments involved fundamental changes to the bid regime to establish a majority acceptance standard for all non-exempt take-over bids, a mandatory extension period to alleviate offeree security holder coercion concerns, and a 105 day minimum deposit period to address concerns that offeree boards did not have enough time to respond to an unsolicited take-over bid. The CSA determined not to amend National Policy 62-202 Defensive Tactics (NP 62-202) in connection with these amendments. They reminded participants in the capital markets of the continued applicability of NP 62-202, which means that securities regulators will be prepared to examine the actions of offeree boards in specific cases, and in light of the amended bid regime, to determine whether they are abusive of security holder rights.

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After canvassing several commentaries concerning the new regime, the Company has concluded that:

- It will be much more difficult for hostile bidders as a result of target issuers having a much longer period of time to respond, concurrent with the added risk and cost to such bidders.
- There is good reason to expect that, except in unusual circumstances, regulators will not permit SRPs to remain in effect after a 105 day bidding period.
- A significant number of reporting issuers have not sought re-approval of their SRPs since the amendments were introduced and those that have sought to renew their SRPs have been required to amend the plans to comply with the new rules.
- A large part of the traditional rationale for adopting SRPs has now been eliminated.

The Company believes that the amended take-over bid rules provide adequate protection against hostile bids. Having said that, it has been suggested that the new rules do not protect against creeping take-over bids for control which are exempt from the rules (such as the accumulation of 20% or more of the issuer's shares through market transactions or the acquisition of a control block through private agreements with a few large shareholders). These activities would however be identifiable through the early warning filing requirements. If, prior to making a determination that the Company ought to adopt a "strategic" SRP at an annual or special meeting of shareholders, the Company were faced with a hostile bid that the Company believed was not in the best interests of the Company and its shareholders, the directors could adopt a "tactical" plan which the Company could take to the shareholders for approval. Nevertheless, at this point in time, the Company is of the opinion that such action is not necessary and the shareholders should be the best arbiters of when "the pill must go".

**EXHIBIT 12.1**

**CERTIFICATION OF CHIEF EXECUTIVE OFFICER PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Suresh Venkatesan, certify that:

1. I have reviewed this annual report on Form 20-F of POET Technologies Inc.; and
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report.

Date: April 29, 2020

By: /s/ Suresh Venkatesan  
Suresh Venkatesan  
Chief Executive Officer



**EXHIBIT 12.2**

**CERTIFICATION OF CHIEF FINANCIAL OFFICER PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Thomas Mika, certify that:

1. I have reviewed this annual report on Form 20-F of POET Technologies Inc.; and
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report.

Date: April 29, 2020

By:           /s/ Thomas Mika            
Thomas Mika  
Chief Financial Officer

**Certification of Principal Executive Officer and Principal Financial Officer Pursuant to 18 U.S.C. Section 1350 as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**

Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, I, Suresh Venkatesan, the Chief Executive Officer of POET Technologies Inc. (the "Company"), hereby certify, that, to my knowledge:

1. The Annual Report on Form 20-F for the year ended 2019 (the "Report") of the Company fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

The foregoing certification is provided solely for purposes of complying with the provisions of Section 906 of the Sarbanes-Oxley Act of 2002 and is not intended to be used or relied upon for any other purpose.

Date: April 29, 2020

/s/ Suresh Venkatesan

Name: Suresh Venkatesan  
Title: Chief Executive Officer

**Certification of Principal Executive Officer and Principal Financial Officer Pursuant to 18 U.S.C. Section 1350 as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**

Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, I, Thomas Mika, the Chief Financial Officer of POET Technologies Inc. (the "Company"), hereby certify, that, to my knowledge:

1. The Annual Report on Form 20-F for the year ended 2019 (the "Report") of the Company fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

The foregoing certification is provided solely for purposes of complying with the provisions of Section 906 of the Sarbanes- Oxley Act of 2002 and is not intended to be used or relied upon for any other purpose.

Date: April 29, 2020

/s/ Thomas Mika

Name: Thomas Mika

Title: Chief Financial Officer

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM'S CONSENT

We consent to the incorporation by reference in the Registration Statement of POET Technologies Inc. on Form F-10 (File No. 333-213422) of our report dated April 29, 2020, with respect to our audits of the consolidated financial statements of POET Technologies Inc. as of December 31, 2019, December 31, 2018 and December 31, 2017 and for the years ended December 31, 2019, December 31, 2018 and December 31, 2017, which report is included in this Annual Report on Form 20-F of POET Technologies Inc. for the year ended December 31, 2019.

Marcum LLP  
New Haven, CT  
April 29, 2020