# 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, 2017 |
| OR   |
| $\ \square$ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934                               |
| OR   |
| $\ \square$ 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<br>Toronto, Ontario, M4P 1E2, Canada   |
| (Address of principal executive offices)   |
| Suresh Venkatesan, CEO<br>780 Montague Expressway<br>Ste 107   |
| San Jose, California 95131   |
| Email: svv@poet-technologies.com   |
| (Name, Telephone, Email and Address of Company Contact Person)   |
| 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: <b>Not Required.</b>                    |
| Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.  ☐ Yes ☒ № |

| Indicate by check mark whether the registrant (1) has preceding 12 months (or for such shorter period that the 90 days.                                 |                          |   |   |           |
|---|--------------------------|---|---|-----------|
|   |                          |   | ⊠ Y   | es □ No   |
| Indicate by check mark whether the registrant has sub submitted and posted pursuant to Rule 405 of Regulat and post such files). <b>Not Applicable.</b> |                          |   |   |           |
| Indicate by check mark whether the registrant is a larg of "large accelerated filer," "accelerated filer," and "en                                      |                          |   | filer, or an emerging growth company. See de                | finition  |
| Large accelerated filer $\Box$  | Accelerated filer ⊠      | Emerging Growth Company ⊠                                 | Non-accelerated filer $\square$                             |           |
| If an emerging growth company that prepares its finar<br>the extended transition period for complying with any  |                          | -   | =                     |           |
| Indicate by check mark which basis of accounting the  | registrant has used to p | repare the financial statements incl                      | luded in this filing:                                       |           |
| U.S GAAP □  |                          | Reporting Standards as issued ecounting Standards Board ⊠ | Other   |           |
| If "Other" has been checked in response to the previous   | us question, indicate by | check mark which financial statem                         | nent item the registrant has elected to follow. ☐ Item 17 ☐ | ] Item 18 |
|   |                          |   |   |           |
|   |                          |   |   |           |
|   |                          |   |   |           |
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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. at Suite 107, 780 Montague Expressway, San Jose, CA, 95131. 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. 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.

This Annual Report (including the consolidated audited financial statements for the years ended December 31, 2017, 2016 and 2015 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. 333-213422), 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 Technologies is a developer and manufacturer of optical light source products for the sensing and data communications markets. Integration of optics and electronics is fundamental to increasing functional scaling and lowering the cost of current photonic solutions. POET believes that its approach to both hybrid and monolithic integration of devices, utilizing a novel dielectric platform and proven advanced wafer-level packaging techniques enables substantial improvements in device cost, efficiency and performance. Optical engines based on this integrated approach have applications ranging from data centers to consumer products.

During the year ended December 31, 2017, the Company generated revenues of \$2,794,044 and gross profit of \$1,451,353. The Company currently operates at a loss. The loss for 2017 was \$12,797,797. 100% of the Company's revenue in 2017 was generated from the sale of sensing products through the Company's subsidiary DenseLight Semiconductor Pte. Ltd. ("DenseLight").

During 2017, the Company spent \$5,442,873 on research and development activities directly related to the development and commercialization of the POET Optical Interposer Platform (POIP) and the development of photonic sensing products. \$10,870,741 was spent on selling, marketing and administration expenses which included non-cash operating costs of \$5,081,077, of which \$2,275,160 related to depreciation and amortization, and \$2,805,917 related to the fair value stock-based compensation. The 2017 loss included other income of \$1,766,524 of which \$1,695,383 related to the recovery of certain qualifying expenses from the Economic Development Board (EDB) in Singapore. The recovery includes both collected recoveries and an amount to be received in 2018. The Company also had deferred income tax recovery of \$297,940.

As of December 31, 2017, we had over \$7.9 million in current assets and approximately \$800,000 of accounts payable and accrued liabilities. The Company is in a position to cover its liabilities as they come due, however, due to the continuation of losses, the Company will need to seek debt or equity financing to fund its operations. Consistent with its need for additional financing, on March 21, 2018, the Company completed a 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). Additionally, subsequent to December 31, 2017 through April 23, 2018 the Company raised \$1,131,921 from the exercise of warrants and stock options. Refer to Subsequent Events for further details. The Company is well capitalized to support its activities beyond 2018 as we work toward the goal of monetizing the POIP and increasing the sales of the Company's photonic products.

#### Financial and Other Information

In this Annual Report, unless otherwise specified, all dollar amounts are expressed in United States Dollars ("USS", "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.

The forward-looking statements and information in this Annual Report are subject to various risks and uncertainties, including those described in ITEM 3.D. "Risk Factors", many of which are difficult to predict and generally beyond the control of the Company, including without limitation:

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

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, 2017, 2016 and 2015 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, 2014 and 2013 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 2017, 2016 and 2015 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. While the Company has been generating revenue from the sale of its photonic sensing products, we believe that it will also need to rely on the sale of our equity securities to provide funds for its activities. We believe the Company is well capitalized, nevertheless the Company may effect a future financing if an appropriate opportunity presents itself. 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.

The following consolidated financial information is separated between continuing and discontinued operations.

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

|   | 2017                | 2016                | 2015                  | 2014         | 2013               |
|---|---------------------|---------------------|-----------------------|--------------|--------------------|
| Revenue                                       | \$<br>2,794,044     | \$<br>1,861,747     | \$<br>- \$            | -            | \$<br>-            |
| Cost of sales                                 | 1,342,691           | 946,001             | -                     | -            | -                  |
| Gross margin                                  | <br>1,451,353       | 915,746             | -                     | -            | -                  |
| Operating Expenses                            |                     |                     |                       |              |                    |
| Selling, marketing and administration         | 10,870,741          | 11,421,604          | 8,614,109             | 9,677,705    | 6,284,288          |
| Research and development                      | 5,442,873           | 3,165,825           | 3,532,492             | 2,277,927    | 1,925,974          |
| Impairment loss                               | -                   | 63,522              | -                     | -            | -                  |
| Loss on disposal of property and equipment    | -                   | 46,738              | -                     | -            | -                  |
| Other income, including interest              | (1,766,524)         | (66,872)            | (76,431)              | (169,832)    | (361,245)          |
| Operating expenses                            | 14,547,090          | 14,630,817          | 12,070,170            | 11,785,800   | 7,849,017          |
|   |                     |                     |                       |              |                    |
| Net loss from operations                      | (13,095,737)        | (13,715,071)        | (12,070,170)          | (11,785,800) | (7,849,017)        |
| Change in fair value contingent consideration | -                   | (283,130)           | -                     | -            | -                  |
| Net loss before income tax recovery           | (13,095,737)        | (13,431,941)        | (12,070,170)          | (11,785,800) | (7,849,017)        |
| Income tax recovery                           | (297,940)           | (207,257)           | -                     | -            | -                  |
| Net loss for the year                         | (12,797,797)        | (13,224,684)        | (12,070,170)          | (11,785,800) | (7,849,017)        |
| Deficit, beginning of year                    | (104,075,356)       | (90,850,672)        | (78,780,502)          | (66,994,702) | (59,145,685)       |
| Deficit, end of year                          | \$<br>(116,873,153) | \$<br>(104,075,356) | \$<br>(90,850,672) \$ | (78,780,502) | \$<br>(66,994,702) |
| Basic and diluted loss per share:             | \$<br>(0.05)        | \$<br>(0.06)        | \$<br>(0.07) \$       | (0.08)       | \$<br>(0.06)       |

Certain prior period figures have been reclassified to conform with the current period's presentation

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

|  |    |               |                  | I  | December 31, |                  |                 |
|--|----|---------------|------------------|----|--------------|------------------|-----------------|
| Assets                                     | ·  | 2017          | 2016             |    | 2015         | 2014             | 2013            |
| Cash                                       | \$ | 4,974,478     | \$<br>14,376,282 | \$ | 14,409,996   | \$<br>11,287,864 | \$<br>3,260,967 |
| Short-term investments                     |    | _             | 589,275          |    |              |                  |                 |
| Accounts and other receivable              |    | 493,925       | 292,849          |    | _            | _                | _               |
| Prepaids and other current assets          |    | 1,957,727     | 758,917          |    | 150,923      | 243,501          | 267,012         |
| Inventory                                  |    | 524,582       | 1,116,880        |    | _            | _                | _               |
| Marketable securities                      |    | _             | _                |    | _            | _                | 397             |
| Property and equipment                     |    | 8,278,170     | 9,364,210        |    | 947,107      | 1,058,860        | 903,792         |
| Patents and licenses                       |    | 456,250       | 449,676          |    | 426,813      | 260,721          | 125,676         |
| Intangible assets                          |    | 839,637       | 876,865          |    | _            | _                | _               |
| Goodwill                                   |    | 7,681,003     | 7,681,003        |    | _            | _                | _               |
| Total Assets                               | \$ | 25,205,772    | \$<br>35,505,957 | \$ | 15,934,839   | \$<br>12,850,946 | \$<br>4,557,844 |
| Liabilities                                |    |               |                  |    |              |                  |                 |
| Accounts payable and accrued liabilities   | \$ | 810,593       | \$<br>1,624,344  | \$ | 515,421      | \$<br>451,724    | \$<br>256,027   |
| Product warranty                           |    |               |                  |    | _            | _                | _               |
| Disposal group liabilities                 |    | _             | _                |    | _            | _                | _               |
| Deferred tax liability                     |    | 1,298,367     | 1,596,307        |    | _            | _                | _               |
| Deferred rent                              |    | 24,031        | 42,665           |    | _            | _                | _               |
| Total Liabilities                          |    | 2,132,991     | 3,263,316        |    | 515,421      | 451,724          | 256,027         |
| Shareholders' Equity                       |    |               |                  |    |              |                  |                 |
| Share capital                              |    | 103,616,221   | 103,357,862      |    | 81,027,171   | 61,688,953       | 42,911,455      |
| Special voting share                       |    | _             | _                |    | _            | _                | _               |
| Warrants                                   |    | 5,985,378     | 5,985,378        |    | 2,013,747    | 6,458,659        | 8,135,590       |
| Contributed surplus                        |    | 32,102,967    | 29,062,874       |    | 25,618,159   | 23,616,664       | 20,261,067      |
| Accumulated other comprehensive loss       |    | (1,758,632)   | (2,088,117)      |    | (2,388,987)  | (584,552)        | (11,593)        |
| Deficit                                    |    | (116,873,153) | (104,075,356)    |    | (90,850,672) | (78,780,502)     | (66,994,702)    |
| Total Shareholders' Equity                 |    | 23,072,781    | 32,242,641       |    | 15,419,418   | 12,399,222       | 4,301,817       |
| Total Liabilities and Shareholders' Equity | \$ | 25,205,772    | \$<br>35,505,957 | \$ | 15,934,839   | \$<br>12,850,946 | \$<br>4,557,844 |

#### B. Capitalization and Indebtedness

Not Required.

# 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

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.

#### Customer demand is difficult to forecast accurately and, as a result, we may be unable to match production with customer demand.

We make planning and spending decisions, including determining the levels of business that we will seek and accept, production schedules, component procurement commitments, personnel needs and other resource requirements, based on our estimates of product demand and customer requirements. Our products are typically sold pursuant to individual purchase orders. While our customers may provide us with their demand forecasts, they are typically not contractually committed to buy any quantity of products beyond firm purchase orders. Furthermore, many of our customers may increase, decrease, cancel or delay purchase orders already in place without significant penalty. The short-term nature of commitments by our customers and the possibility of unexpected changes in demand for their products reduce our ability to accurately estimate future customer requirements. If any of our customers decrease, stop or delay purchasing our products for any reason, we will likely have excess manufacturing capacity or inventory and our business and results of operations would be harmed.

# 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.

#### 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 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.

Our products, including those sold by predecessor company, OPEL Solar, could contain defects that may cause us to incur significant costs or result in a loss of customers or subject us to claims for which we may not be fully insured.

Our predecessor company, Opel Solar, sold solar systems and products between 2007 and 2012, and some of those products may still be under warranty. We have not undertaken to quantify the size of that warranty obligation and it is not recorded on our balance sheet because it is not determinable. Although we carry product liability insurance, this insurance may not adequately cover our costs arising from defects or warranty claims related to those products.

Our current products sold by DenseLight are complex and undergo quality testing as well as formal qualification by our customers. Our customers' testing procedures are limited to evaluating our products under likely and foreseeable failure scenarios and over varying amounts of time. For various reasons, such as the occurrence of performance problems that are unforeseeable in testing or that are detected only when products age or are operated under peak stress conditions, our products may fail to perform as expected long after customer acceptance. Failures could result from faulty components or design, problems in manufacturing or other unforeseen reasons. As a result, we could incur significant costs to repair or replace defective products under warranty, particularly when such failures occur in installed systems. Our products are typically embedded in, or deployed in conjunction with, our customers' products, which incorporate a variety of components, modules and subsystems and may be expected to interoperate with modules produced by third parties. As a result, not all defects are immediately detectable and when problems occur, it may be difficult to identify the source of the problem. We will continue to face this risk going forward because our products are widely deployed in many demanding environments and applications worldwide. In addition, we may in certain circumstances honor warranty claims after the warranty has expired or for problems not covered by warranty to maintain customer relationships. Any significant product failure could result in litigation, damages, repair costs and lost future sales of the affected product and other products, divert the attention of our engineering personnel from our product development efforts and cause significant customer relations problems, all of which would harm our business. Although we carry product liability insurance, this insurance may not adequately cover our costs arising from defects in our products or otherwise.

The business that we acquired did not have a history of profitable operations. Our ability to successfully manage our manufacturing operations is essential to our overall success, and if we fail to do so, our financial results will suffer.

At the time of the acquisition of DenseLight Semiconductors, Pte. Ltd. in May of 2016, the company had been operating at a loss for several years and was at a minimum staffing level. Since the acquisition we have committed substantial capital and management attention to improving the operation, increasing sales and driving to profitability. Even though substantial changes in the management and personnel have been made, the results to date have been less than anticipated and more improvement will be required in order to make the DenseLight operation profitable. We cannot guarantee that our efforts to improve the DenseLight operation will be successful, and if they are not, the operation will continue to need capital and attention from the senior management of the Company and our financial results may suffer as a result.

If we encounter manufacturing problems or if manufacturing at our Singapore operation is discontinued for any reason, including an industrial or workplace accident, we may lose sales and damage our customer relationships, or be subject to claims for which we may not be fully insured.

We may experience delays, disruptions or quality control problems in our manufacturing operations. These and other factors may cause less than acceptable yields at our wafer fabrication facility. Manufacturing yields depend on a number of factors, including the quality of available raw materials, the degradation or change in equipment calibration and the rate and timing of the introduction of new products. Changes in manufacturing processes required as a result of changes in product specifications, changing customer needs and the introduction of new products may significantly reduce our manufacturing yields, resulting in low or negative margins on those products. In addition, because of our wafer size, we use equipment that is not readily available on the open market and for which spare parts and qualified service people may not be available. If any of our key equipment were to be damaged or destroyed for any reason, our manufacturing process would be severely disrupted. Any such manufacturing problems would likely delay product shipments to our customers, which would negatively affect our sales, competitive position and reputation.

Our operations in Singapore are subject to government regulations that protect the workplace safety of employees. We strive to maintain an accident-free workplace, but we cannot guarantee that industrial accidents will not take place, or that we will not be subject to liability for these and other workplace related claims. We have obtained insurance policies to protect the Company against claims for workplace related claims, but we cannot guarantee that these and other insurance policies carried by the Company will be sufficient to cover the full costs of such claims, which could have a material adverse effect on the Company.

#### 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 both our Indium Phosphide ("InP") and Gallium Arsenide ("GaAs") 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.

Products shipped to customers located outside Canada and the United States account for a majority of our revenues. In addition, we have significant tangible assets located outside the United States. Our manufacturing 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 prior acquisitions created a large amount of goodwill, which may be impaired in the future and as a result may adversely affect our financial results. In addition, past and any future acquisitions may adversely affect our financial condition and results of operations.

As part of our business strategy, we have in the past and may in the future pursue acquisitions of companies that we believe could enhance or complement our current product portfolio, augment our technology roadmap or diversify our revenue base. Acquisitions involve numerous risks, any of which could harm our business, including:

- difficulties integrating the acquired business;
- unanticipated costs, capital expenditures, liabilities or changes to product development efforts;
- · difficulties integrating the business relationships with suppliers and customers of the acquired business with our existing operations;
- acts or omissions by the acquired company prior to the acquisition that may subject us to unknown risks or liabilities;
- risks associated with entering markets in which we have little or no prior experience;
- potential loss of key employees, particularly those of the acquired organizations; and
- · diversion of financial and management resources from our existing business;

Our prior acquisitions have resulted, and future acquisitions may result in the recording of goodwill and other intangible assets subject to potential impairment in the future, adversely affecting our operating results. We may not achieve the anticipated benefits of an acquisition if we fail to evaluate it properly, and we may incur costs in excess of what we anticipate. A failure to evaluate and execute an acquisition appropriately or otherwise adequately address these risks may adversely affect our financial condition and results of operations.

Our predecessor company received and our current companies receive and expect to receive in the future 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; our recently acquired subsidiary company, DenseLight Semiconductor, Pte, Ltd. is expected to receive funding for new product development activities conducted in Singapore from the Economic Development Board; and we expect that our recently acquired subsidiary company BB Photonics U.K., may also apply for certain grants to defer the cost of development in the U.K. The rules for eligibility vary widely across government agencies, are complex and may be subject to different interpretations. Furthermore, some of the grants set pre-defined development or spending objectives, which we may not achieve. 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.

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.

We have a history of large operating losses. We may not be able to achieve 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, 2017, we had an accumulated deficit of \$116,873,153. For the years ended December 31, 2017 and December 31, 2016, we incurred net losses before income taxes of \$13,095,737 and \$13,431,941 respectively. We expect to continue to incur losses and operating cash outflows for the foreseeable future, and these losses and outflows could increase as we continue to work to develop our business. It is possible that we may never become profitable, and even if we achieve profitability in the future, we may not be able to sustain profitability in subsequent periods.] Should our losses continue, we may need to seek debt or equity financing to fund our operations.

As of December 31, 2017, we held \$4,974,478 in cash, and we had working capital of \$7,140,119.

The Company is currently in a position to cover its liabilities as they come due. However, we have sustained considerable operating losses in the past. Should such losses continue, the Company may need to seek debt or equity financing to fund its operations. Although the Company has been successful in obtaining such financings in the past, there is no assurance that it will be able do so in the future. If the Company is unable to obtain such financing, it may have an adverse effect on the Company's ability to continue operations. Consistent with its needs for additional financing, on March 21, 2018, the Company completed a 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). Additionally, subsequent to December 31, 2017 the Company raised \$1,131,921 from the exercise of warrants and stock options.

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, 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.

# Our business could be negatively impacted as a result of shareholder activism.

In recent years, shareholder activists have become involved in numerous public companies. Shareholder activists frequently propose to involve themselves in the governance, strategic direction, and operations of the company. We may in the future become subject to such shareholder activity and demands. Such demands may disrupt our business and divert the attention of our management and employees, and any perceived uncertainties as to our future direction resulting from such a situation could result in the loss of potential business opportunities, be exploited by our competitors, cause concern to our current or potential customers, and make it more difficult to attract and retain qualified personnel and business partners, all of which could adversely affect our business. In addition, actions of activist shareholders may cause significant fluctuations in our stock price based on temporary or speculative market perceptions or other factors that do not necessarily reflect the underlying fundamentals and prospects of our business.

# 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 the U.S. and other foreign 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 the U.S. or foreign 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 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, which may be up to five years following the filing of our Form 20F Registration Statement, 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.

We have implemented internal controls that we believe provide reasonable assurance that we will be able to avoid accounting errors or material weaknesses in future periods. However, 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, 2017, we had accumulated net operating losses (NOLs), of approximately \$124 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 our annual utilization of our NOLs is not limited. 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.

# Our manufacturing operations are subject to environmental regulation that could limit our growth or impose substantial costs, adversely affecting our financial condition and results of operations.

Our properties, operations and products are subject to the environmental laws and regulations of the jurisdictions in which we operate and sell products. These laws and regulations govern, among other things, air emissions, wastewater discharges, the management and disposal of hazardous materials, the contamination of soil and groundwater, employee health and safety and the content, performance, packaging and disposal of products. Our failure to comply with current and future environmental laws and regulations, or the identification of contamination for which we are liable, could subject us to substantial costs, including fines, clean-up costs, third-party property damages or personal injury claims, and make significant investments to upgrade our facilities or curtail our operations. Identification of presently unidentified environmental conditions, more vigorous enforcement by a governmental authority, enactment of more stringent legal requirements or other unanticipated events could give rise to adverse publicity, restrict our operations, affect the design or marketability of our products or otherwise cause us to incur material environmental costs, adversely affecting our financial condition and results of operations.

# 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, or 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.

# Goodwill Impairment Risk

POET's Board and management is required to analyze on an annual basis whether any intangibles should be impaired, based on a calculation of the likely future cash flows from those assets. The annual impairment test was done by management in the fiscal fourth quarter. Both DenseLight and BB Photonics are regarded by POET's Board and management as a single unit contributing to the Corporation's development of an optical interposer platform. At the time of their acquisition in mid-2016, the combined purchase price exceeded their combined asset values, resulting in the creation of Goodwill, valued as of September 30, 2017 at \$7,681,003. At the time of the initial valuation, no value was attributed to DenseLight's Intellectual Property, which POET's Board and management now expect to be a major contributor to the Corporation's anticipated future cash flows. POET's Board and management annually assesses the anticipated future cash flows of the Corporation related to this Goodwill and determines if an impairment is necessary.

#### 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;   |
|--|
| 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 23, 2018, our 52-week high and low closing market prices for our common stock on the TSXV were CA\$0.79 and CA\$0.18, respectively, based on the closing exchange rates on the respective dates.

# 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\$50 million (net of share issue costs) in equity financing through private placements or the exercise of stock options and warrants in support of the POET initiative, 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.

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 23, 2018, there were outstanding options to purchase up to 16,276,497 shares of our common stock that are currently exercisable and additional outstanding options to purchase up to 24,230,024 shares of common stock that are exercisable over the next several years. As of April 23, 2018, there were outstanding warrants to purchase 43,109,000 shares of our stock and broker compensation units to purchase 1,309,080 units. Each compensation unit is convertible into one common share and one half common share purchase warrant.. The holders of these options, warrants and compensation units 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, warrants and compensation units 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\$0.77, the weighted average exercise price of warrants is CAD\$0.58 and the weighted average exercise price of the compensation units is CAD\$0.55, which compares to the CAD\$0.42 market price at closing on April 23, 2018.

#### Dilution through exercise of share options could adversely affect the Company's shareholders.

Because the success of the Company is highly dependent upon its employees, the Company has granted to some or all of its key employees, directors and consultants options to purchase common shares as non-cash incentives. To the extent that significant numbers of such options may be granted and exercised, the interests of the other stockholders of the Company may be diluted. As of April 23, 2018, there were 40,506,521 share purchase options outstanding with a weighted average exercise price of CAD\$0.77, 43,109,000 share purchase warrants outstanding with a weighted average exercise price of CAD\$0.58 and 1,309,000 compensation units outstanding with a weighted average price of CAD\$0.55. If all of these securities were exercised, an additional 85,579,141 common shares would become issued and outstanding. This represents an increase of 29.7% 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 1934 Securities and 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 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 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 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 2018 threshold for WTO investors that are SOEs will be \$398 million based on the book value of the Canadian business' assets, up from \$379 million in 2017.

The 2018 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. Therefore, these officers, directors and principal shareholders are exempt from short-swing profits that apply to insiders of U.S. issuers. 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.

POET 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

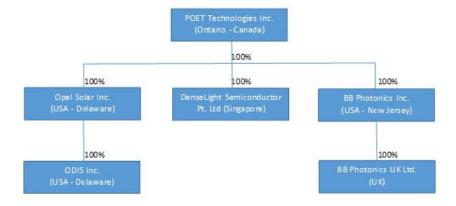
# A. History and Development of the Company

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. (DenseLight), 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 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.

Odis is the developer 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 Inc. and BB Photonics UK Ltd.

Through our subsidiary BB Photonics, we develop photonic integrated components for the datacenter market utilizing embedded dielectric technology that is intended to enable on-chip athermal wavelength control and lower the total solution cost of datacenter photonic integrated circuits.

#### DenseLight Semiconductor Pte. Ltd.

Through our subsidiary DenseLight, we design, manufacture, and deliver photonic optical light source products and solutions to the communications, medical, instrumentations, industrial, defense, and security industries. DenseLight processes compound semiconductor-based optoelectronic devices and photonic integrated circuits through its in-house wafer fabrication and assembly & test facilities.

### 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 2017                | \$<br>1,030,340     | Instruments, equipment and patents |
| Fiscal 2016 <sup>(1)</sup> | \$<br>10,985,852    | Instruments, equipment and patents |
| Fiscal 2015                | \$<br>374,200       | Instruments, equipment and patents |

<sup>(1)</sup> As part of the acquisition of DenseLight and BB Photonics, the Company acquired 8,706,029 of leasehold improvements, machinery and office equipment, and 900,131 of intangible assets. The Company spent and additional \$1,379,692 in cash (\$1,281,170 spent in 2016 and \$98,522 spent in 2015) in acquiring equipment and patents.

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 107, 780 Montague Expressway, San Jose, CA, 95131 and 6 Changi North Street 2, Singapore, 498831.

#### **B.** Business Overview

#### Corporate Overview

We are an advanced semiconductor development and manufacturing company dedicated to enabling the integration of photonics and electronics through novel approaches to device design and packaging. We have developed, or are in the process of developing, solutions that provide dramatic reductions in the cost of key components of photonic devices. Through integration and the adaptation of silicon processing methods to photonic device fabrication, we believe that the Company can capture a meaningful portion of the market for photonics devices that address the need for increased bandwidth, speed, sensitivity and cost across a range of high growth data communications and photonic sensing applications. We believe that the integration of discrete functions onto fewer devices is the optimal way to lower cost, reduce size, limit power consumption and increase the performance, scalability and value of photonics devices, making opto-electronics a more viable economic proposition.

The cost of building silicon-based devices today contrasts sharply with the cost of building photonics-based devices. While the majority of the cost of building silicon-based devices is in fabricating the device on the wafer, the majority of the cost of building photonics devices today is in the packaging and testing process. It is inevitable that these costs will be reduced through integration. In addition, integration opens up entirely new markets for photonics, including on-board and on-chip data transfer ("inside the box").

Until early to mid-2017, our Company had been focused on "monolithic" integration, based on a proprietary design fabricated into a single Gallium Arsenide (GaAs) chip that has all of the elements needed to communicate data at the speed of light, yet with the lower cost profile of copper. POET's GaAs design integrates at least three essential discrete devices onto a single GaAs chip: a vertical-cavity surface-emitting laser (VCSEL), a photodetector and an electronic circuit based on either a thyristor or a heterostructure field-effect transistor (HFET).

In 2017 we began to develop solutions based on a novel "hybrid" integration approach, which combines Indium Phosphide (InP)-based photonics chips and dielectric-based waveguide devices into a single package. This approach enables the replacement of high-cost optical components, such as mirrors and lenses, with embedded dielectric passive devices, dramatically lowering the cost of data communications transceiver solutions for data center operators and telecom companies. Our ability to address hybrid integration is a direct result of our acquisitions, in 2016, of DenseLight Semiconductor Pte. Ltd. ("DenseLight") based in Singapore, and BB Photonics, Inc. based in New Jersey.

By mid-2017 it became apparent that the majority of transceiver applications in the data center market was biased strongly in favor of InP-based solutions. This, and the fact that our GaAs development efforts faced a number of challenges that could only be solved by working closely with a well-resourced strategic partner, we decided to focus our own resources on hybrid integration, utilizing the unique capabilities that we acquired with DenseLight and BB Photonics. By late-2017, we demonstrated that we could dramatically reduce the cost of conventional transceivers through the integration of discrete devices employing a novel approach that we call an "Optical Interposer".

POET's Optical Interposer facilitates the co-packaging of electronics and optics in a single Multi-Chip Module (MCM), paving the way for "Photonics-in-a-package". Based on our dielectric waveguide technology, the Optical Interposer provides the ability to run electrical and optical interconnections side-by-side on the same interposer chip at a micrometer scale. Hybrid Integrated Photonics Packaging (HiPP) enabled by the Optical Interposer plays a critical role in improving electrical and thermal performance, power consumption and form factor of photonics sub-assemblies. The Optical Interposer currently forms an integral part of POET's hybrid integrated optical engines and leverages the manufacturing processes and unique capabilities of its dielectric waveguides.

# Industry Background

In the ten years since the introduction of the smartphone, people have fundamentally changed the way they communicate, socialize, and interact with themselves and the data around them. Today, smartphones and other such devices allow us to capture, create and communicate enormous amounts of content. 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 is expected to account for two-thirds of total IP traffic by 2021<sup>1</sup>), social media activity, the progression of video transmission, the ramp 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 Everything, and the evolution of big data analytics and machine learning/artificial intelligence. These factors will continue to drive a long term increased demand for capacity and higher speeds.

Photonics has traditionally been employed to transmit data over long distances because light can carry considerably more content and data at faster speeds. 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 much of the data center communication links.

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 of up 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 others. 5G networks requires substantial capacity expansion for base stations, which is driven by three factors: more spectrum, higher density of base stations in each region, and higher spectral efficiency.

# Photonics Markets

The two target markets in which we currently sell or plan to sell products near-term are Photonic Sensing and Data Communications. The global photonics market is forecasted to grow at a compound average growth rate (CAGR) of 8% to 12% through 2021, reaching an estimated \$54 billion.<sup>2</sup> This market includes Photonic Sensing (which consists of devices for test and measurement, navigation, LIDAR systems) and Data Communications (both telecom applications and optical data communications).

The overall Data Communications market is forecasted to grow at a 27% CAGR over the period 2015 to 2020 and is being driven largely by cloud data centers, which have a forecasted CAGR of 29.6% over the same period. This compares to traditional data centers at only a 9% CAGR<sup>3</sup>. The expected growth in the networking and data communication market is the result of many factors, including smartphone use, over-the-top video consumption, social networking and the "Internet of Things". Increased consumer demand for data requires both data storage and data communications at higher speeds. As a result, 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 of up to 2km have already been transitioned from inherently lower speed copper cable to optical fibers.

Photonic transceivers will represent a \$25 billion market opportunity in 2025, according to *Oculi, llc*. 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, singlemode 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>4</sup>

Integrated photonic transceivers, incorporating approaches comparable to what POET has, are expected to overtake those using discrete components by 2021, growing from a current \$3.2 billion to \$20 billion in 2025<sup>5</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 package, 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.

In addition to building optical engines for transceivers, we believe the Company has the opportunity to sell individual components to other suppliers of optical transceivers, including single-chip local area network (LAN) wavelength division multiplexing (WDM) lasers, receiver optical sub-assemblies (ROSA) and transmit optical sub-assemblies (TOSA) in advance of selling optical engines for transmit and receive assemblies (TXRX).

The Photonics Sensing market<sup>6</sup> represents a Total Available Market ("TAM") of approximately \$23 billion of system sales and comprises the following segments: 1) Test & Measurement (TAM: \$10 billion), which includes monitoring equipment for communication, components and material testing, as well as sensing equipment such as distributed temperature and strain measurement; 2) Structural Health Monitoring (TAM: \$6 billion), which includes devices to monitor the power grid, and fiber optic-based sensors in rail lines, nuclear facilities, etc.; 3) Guidance and Navigation (TAM: \$4.5 billion), which includes navigational guidance systems, gyrocompasses, and optical-based systems for navigating self-driving automobiles; and 4) Medical and Health Care (TAM: \$2.5 billion), which includes devices for non-invasive blood glucose monitoring, pulse-oximeter devices, and ophthalmic examination. Component sales to systems providers typically represent approximately 10% of system market TAM's. We plan to address these high growth markets with component sales in a combination of current and expected new products from our DenseLight subsidiary.

Until early- to mid-2017, our Company had been focused on "monolithic" integration, based on a proprietary design fabricated into a single Gallium Arsenide (GaAs) chip that has all of the elements needed to communicate data at the speed of light, yet with the lower cost profile of copper. POET's GaAs design integrates at least three essential discrete devices onto a single GaAs chip: a vertical-cavity surface-emitting laser (VCSEL), a photodetector and an electronic circuit based on either a thyristor or a heterostructure field-effect transistor (HFET).

- Cisco Visual Networking Index: Forecast and Methodology, 2016-2021, June 6, 2017
- 2 MarketsandMarkets Photonics Market by Application Global Forecasts to 2021, September 2016
- 3 Cisco Global Cloud Index, 2015-2020, November 2016
- Oculi, Ilc, Estimates for 2025 commissioned by POET Technologies, Inc., March 2017
- 5 Ibid
- 6 Global Market Insights Optical Sensors Market Size By Product, By Application, Industry Analysis Report, Regional Outlook, Application Potential, Price Trends, Competitive Market Share & Forecast, 2016 2024, August 2016

In 2017 we began to develop solutions based on a novel "hybrid" integration approach, which combines Indium Phosphide (InP)-based photonics chips and dielectric-based waveguide devices into a single package. This approach enables the replacement of high-cost optical components, such as mirrors and lenses, with embedded dielectric passive devices, dramatically lowering the cost of data communications transceiver solutions for data center operators and telecom companies. Our ability to address hybrid integration is a direct result of our acquisitions, in 2016, of DenseLight Semiconductor Pte. Ltd. ("DenseLight") based in Singapore, and BB Photonics, Inc. based in New Jersey.

By mid-2017 it became apparent that the majority of transceiver applications in the data center market was biased strongly in favor of InP-based solutions. This, and the fact that our GaAs development efforts faced a number of challenges that could only be solved by working closely with a well-resourced strategic partner, we decided to focus our own resources on hybrid integration, utilizing the unique capabilities that we acquired with DenseLight and BB Photonics. By late-2017, we demonstrated that we could dramatically reduce the cost of conventional transceivers through the integration of discrete devices employing a novel approach that we call an "Optical Interposer".

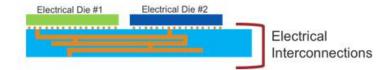
# POET's Optical Interposer Platform

The Optical Interposer extends the functionality of traditional electrical interposers – by adding a parallel lane of optical interconnections to an electrical interposer. Optical Interposers enable the concept of "photonics-in-a-package" by eliminating traditionally used micro-optics such as lenses, filters and prisms from the optical assembly and by further simplifying fiber alignment and coupling.

POET's Optical Interposer utilizes our proprietary dielectric waveguide technology. The unique manufacturing process and capabilities of this technology enables us to fabricate an optical communication fabric within the context of a traditional CMOS process. Consequently, it enables a novel and differentiated extension to the more traditional electrical interposers.

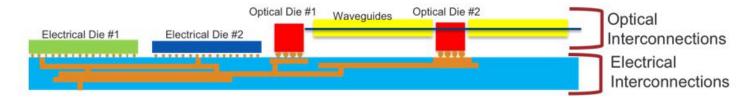
The waveguides incorporated in POET's Optical Interposers perform more than just waveguide transmission functions. They act as gratings, splitters, couplers and allow for manipulation of the light with built in functionality suited to the application. For example, POET's 100G family of Optical Interposer would include gratings that both function to enable narrow line width operation of its light sources and to perform critical Wavelength Division Multiplexing (WDM) operations.

# A Typical Electrical Interposer



Shown above is a typical cross-section of an electrical interposer that enables a closer placement of electronic chips and minimizes communication lengths.

# POET's Optical Interposer



In much the same way as the electrical interposer incorporates electrical passive functionality, the POET Optical Interposer incorporates passive optical functionality. Furthermore, the Optical Interposer enables the conversion of electrical signals to optical signals and the manipulation and transmission of these optical signals outside the package.

POET's Optical Interposer provides the following advantages compared to conventional optical modules:

- ✓ Wafer-level integration into silicon
- ✓ Waveguides formed and integrated with embedded passive optical components (SSC, mux-demux, filters, waveguides) at chip level
- ✓ Ultra-low loss waveguide dielectric with high coupling efficiency
- ✓ Pick and place assembly and passive alignment of components
- ✓ Elimination of lenses and active alignment
- ✓ Athermal waveguide dielectric allows multi-channel scalability
- ✓ Wafer-level hermetic sealing, testing and burn-in of active components to produce known good die
- ✓ Small form factor and platform architecture readily scalable
- ✓ High frequency metal traces managed in the dielectric platform
- ✓ Fully compatible with conventional CMOS processing allowing integration with complex electronics at chip or module level

Compared to semiconductors, where packaging accounts for 10% of the final die cost, packaging and assembly is generally 80-90% for a photonic die. POET's Optical Interposer represents a new and potentially disruptive approach to photonics packaging and assembly that could allow more functionality to be integrated into a single package, similar to the system-in-package (SiP) trends observable in the industry today.

# **Our Products**

• We are currently engaged in the development of 100GGbs ROSA (Receiver Optical Sub-Assemblies) and TOSA (Transmitter Optical Sub-Assemblies) for 100G Transceiver assemblies.

We expect our InP-based solutions from our DenseLight subsidiary will add to the Company's current and future product portfolio, including:

- Broadband Super-Luminescent LEDs (Light Emitting Diodes)
- Narrow Linewidth Lasers
- DFB (Distributed Feedback) Lasers for Data Communications
- High Power ELEDs (Edge Emitting Light Emitting Diodes)
- Integrated CWDM (Coarse Wavelength Division Multiplexing) Solutions

# Competition

The photonics market is intensely competitive. Because of the unique nature of our product offerings, we do not believe that we face a single major competitor across our various markets. We do, however, experience intense competition in each product area from a number of manufacturers with similar or alternative technologies and we anticipate that competition in the photonics markets will increase. Many of our competitors are 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 our GaAs and InP processes, the projected performance and anticipated inherent reliability of our products, and our technical expertise in photonic engine design and manufacture.

#### Our Strategy

Our vision is to become a global leader in photonics by deploying an Optical Interposer-based approach to the integration of photonics devices into a wide variety 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 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, thus 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 100/200/400G transceiver components represent a uniquely attractive opportunity for collaborative development with a strategic partner(s). We also believe that the continued development of our GaAs platform is dependent on securing a strategic partner.
- · Continue to invest in our capabilities and infrastructure. We intend to continue to invest in new products, new technology and our production infrastructure and facilities to maintain and strengthen our competitive position. Our R&D programs in Singapore are partially reimbursed by the Singapore Economic Development Board, whose support will help to defer the costs associated with bringing innovative new products to market.
- · Selectively pursue other opportunities that leverage our existing expertise. Our expertise in designing and manufacturing photonics devices, both discrete and integrated, positions us well to pursue applications in high growth markets and our Singapore operation is ideally located to support customers in Asia, where much of the growth in photonics is occurring.
- · 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.

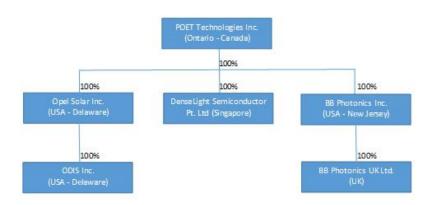
# Geographic Distribution of Revenue

The Company had no sales in 2015. Sales and geographic markets for 2017 and 2016 were as follows:

| Region                | 2017        | 2016        |
|-----------------------|-------------|-------------|
| Asia – Pacific        | \$1,592,605 | \$1,066,429 |
| Europe                | \$866,154   | \$657,105   |
| North & South America | \$335,285   | \$138,213   |
|                       | \$2,794,044 | \$1,861,747 |

#### C. Organizational Structure

The following graphically displays the organizational structure of the Company:



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.
There are 5 Common Shares of ODIS Inc. issued and outstanding, held by OPEL Solar, 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 2,730 sq. ft. space in San Jose, California. In Singapore, we provide one-stop design and manufacturing solutions, from photonics design and simulation, epitaxial growth, wafer fabrication, chip production, in-line optical coating, sub-mounting, photonic measurements, product tests and screening. The 50,000 sq. ft. purpose-built facility in Singapore houses its R&D, product design and manufacturing operations under one roof. Its 15,000 sq. ft. clean room is fully equipped for enabling vertically integrated volume manufacturing, from wafer fabrication to test and packaging. We are ISO9001 certified in Singapore processing Indium Phosphide (InP) and Gallium Arsenide (GaAs) based optoelectronic devices and photonic integrated circuits through our in-house wafer fabrication and assembly & test facilities

The Company believes that its existing facilities are adequate to meet its needs for the foreseeable future.

# 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, 2017, 2016 and 2015 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."

There are 135,042 Ordinary Shares of DenseLight issued and outstanding, all of which are held by the Company. There are no other outstanding securities of DenseLight.

There is 1 Ordinary Shares of BB Photonics UK Ltd. issued and outstanding, held by BB Photonics Inc.

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.

#### A. Operating Results

# Factors Affecting Our Results of Operations

During the year ended December 31, 2017, the Company generated gross revenues of \$2,794,044 and gross profit of \$1,451,353 or 52%. All of the Company's revenue in 2017 was generated from the sale of sensing products through the Company's subsidiary DenseLight Semiconductor Pte. Ltd. ("DenseLight"). The Company currently operates at a loss. The loss for 2017 before income taxes was \$13,095,737.

During 2017, the Company spent \$5,442,873 on research and development activities directly related to the development and commercialization of the POET Optical Interposer Platform (POIP) and the development of photonic sensing products. \$10,870,741 was spent on selling, marketing and administration expenses which included non-cash operating costs of \$5,081,077, of which \$2,275,160 related to depreciation and amortization, and \$2,805,917 related to the fair value stock-based compensation. The 2017 loss included other income of \$1,766,524 of which \$1,695,383 related to the recovery of certain qualifying expenses from the Economic Development Board (EDB) in Singapore. The recovery includes both collected recoveries and an amount to be received in 2018. The Company also had deferred income tax recovery of \$297,940.

While the Company is generating limited revenues, it is still primarily a research and development company focused on developing a technological process that demands significant investments of cash and other resources. The Company has not earned a profit since its inception. Due to the current stage of the process development, the Company's most significant expenses are subcontract fees and human resources related, either directly as wages and benefits or through the non-cash valuation of stock options granted to employees as part of their compensation.

Due to technical challenges related to the manufacturability of the monolithic GaAs platform, have delayed POET's development of a Gallium Arsenide (GaAs)-based optical engine. The additional development time and cost associated with the GaAs platform will require the Company to secure a strategic partner in order to develop and commercialize this platform. The Company's therefore redistributed resources dedicated to GaAs development to the development of POIP. To that end, the Company achieved certain milestones on its product development road map which includes demonstrating a Narrow Line Width Laser with industry leading performance with tunability for high resolution sensing applications such as gas & chemical sensing, coherent communication, meteorological sensing and atmospheric LIDAR. Additionally, in September of 2017, the Company began sampling Avalanche Photodiodes (APD) and PIN Photodiodes (PIN) for the 10G Datacom and Telecom markets. The Company also sampled its Monitor Photodiode (MPD) arrays for applications in 100G Datacom applications.

#### **Taxation**

See ITEM 10.E. "Taxation."

#### 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**

Financial instruments are required to be classified as one of the following: held to maturity; loans and receivables, fair value through profit or loss; available for sale or other financial liabilities.

The Company's financial instruments include cash, short-term investments, accounts receivable, accounts payable and accrued liabilities. The Company designated its cash and short-term investments as fair value through profit or loss and its accounts payable and accrued liabilities as other financial liabilities.

Fair value through profit or loss financial assets are measured at fair value with gains and losses recognized in operations. Financial assets, except for cash and short-term investments, consisting of loans and receivables and other financial liabilities are measured at amortized cost. Available for sale financial assets are measured at fair value with unrealized gains and losses recognized in other comprehensive loss.

Fair value of a financial instrument is the amount of consideration that would be agreed upon in an arm's length transaction between knowledgeable, willing parties who are under no compulsion to act. The fair value of a financial instrument on initial recognition is the transaction price, which is the fair value of the consideration given or received. Subsequent to initial recognition, the fair value of a financial instrument that is quoted in active markets is based on the bid price for a financial asset held and the offer price for a financial liability. When an independent price is not available, fair value is determined by using a valuation methodology that refers to observable market data. Such a valuation technique includes comparisons with a similar financial instrument where an observable market price exists, discounted cash flow analysis, option pricing models and other valuation techniques commonly used by market participants. If no reliable estimate can be made, the Company measures the financial instrument at cost less impairment as a last resort.

# 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.

The provision policy for doubtful accounts of the Company is based on the ageing analysis and management's ongoing evaluation of the recoverability of the outstanding receivables. A considerable amount of judgment is required in assessing the ultimate realization of these receivables, including the assessment of the creditworthiness and the past collection history of each customer. If the financial conditions of these customers were to deteriorate, resulting in an impairment of their ability to make payments, additional allowances may be required. As at the balance sheet date, no provision was required for accounts receivable.

#### 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 inventory 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.

# 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.

During the year management determined that certain equipment would not be used to generate future cash flows and committed to a plan to dispose of certain equipment. The Company reported nil in impairment loss for the year ended December 31, 2017 (2016 - \$63,522, 2015 - nil).

#### 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.

# Contingent consideration

The Company may pay future consideration related to acquisitions based upon performance measures contractually agreed at the time of purchase. Management estimates the future consideration payable based on underlying contract terms, and best estimates of the future performance of the acquiree. Depending on the future performance of the acquiree, management estimates of the amounts payable for future consideration related to acquisitions may materially differ from the consideration ultimately paid.

#### 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. Valuation allowances are provided to reduce deferred income tax assets to the amount expected to be realized.

# 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") carry-forwards can be used to offset the transition tax liability. The Company does not expect that this change will have an impact on the Company as it has not earned taxable income in the past and it has significant NOL carry-forwards.

# Revenue recognition

# Sale of goods

Revenue from the sale of goods is recognized when significant risks and rewards of ownership are transferred to the buyer, there is persuasive evidence of an arrangement, collection is probable and fees are fixed and determinable.

# Service revenue

Revenue from services that are one year or less is recognized when the services are completed. Revenue from services of a long-term nature is recognized by reference to the stage of completion of the transaction at the end of the reporting period determined by services performed to date as a percentage of total services and the amount of revenue, stage of completion, and the costs incurred for the transaction and the costs to complete the transaction can be measured reliably.

#### 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.

#### Other income

#### **Government Grants**

Grants received exclusively from governmental agencies such as the Department of Defense of the United States of America, NASA and Productivity and Innovation Credit Scheme Singapore ("PIC Grant"), relating to research and development or expenditure on technology, are recognized as other income.

Government grants from the United States are based on the agreed upon milestones of the projects. PIC Grants are offered as a percentage of qualifying expenditures. PIC Grants are paid out in cash. Other income earned on government grants in 2017 was nil (2016 \$14,027 and 2015 nil).

# **Research and Development Credits**

The Company is eligible to receive cash credits for certain qualifying research and development expenses based on anticipated spending over a three-year period, with an expectation that the credits will not exceed a certain dollar value over the three year period. The Company has accrued or collected \$1,695,383 relating to these research and development credits in 2017 (2016 - nil, 2015 - nil).

#### 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.

# Customer relationships

Intangible assets include customer relationships acquired with the acquisition of DenseLight. Customer relationships are an externally acquired intangible asset and are 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.

# 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.

# **Short-term investments**

The short term investments of nil at December 31, 2017 and \$589,275 at December 31, 2016 and nil at December 31, 2015 consisted of guaranteed investment certificates ("GICs") held with one Canadian chartered bank and earn interest at a rate of 0.50%.

# Recent accounting pronouncements

The following is a summary of recent accounting pronouncements that may affect the Company:

IFRS 15, Revenue from Contracts with Customers ("IFRS 15"). The IASB issued IFRS 15, which is effective for annual periods beginning on or after January 1, 2018. The standard contains a single model that applies to contracts with customers and two approaches to recognizing revenue: at a point in time and over time. The model features a contract-based five-step analysis of transactions to determine whether, how much and when revenue is recognized. New estimates and judgmental thresholds have been introduced, which may affect the amount and/or timing of revenue recognized. The Company is in the process of assessing the impact of this standard on its consolidated financial statements. Based on current assessment, the Company does not expect that this new standard will impact how the Company currently recognizes revenue.

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 will replace 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 is in the process of assessing the impact of this standard on its consolidated financial statements.

#### Selected Annual Data

The selected financial data of the Company for the years ended December 31, 2017, 2016 and 2015 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 2017, 2016 and 2015 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, |               |    |               |    |              |  |
|--|--------------------------|---------------|----|---------------|----|--------------|--|
|  |                          | 2017          |    | 2016          |    | 2015         |  |
| Revenue  | \$                       | 2,794,044     | \$ | 1,861,747     | \$ | -            |  |
| Cost of sales (1)                                    |                          | 1,342,691     |    | 946,001       |    | -            |  |
| Gross margin   |                          | 1,451,353     |    | 915,746       |    | -            |  |
| Operating expenses                                   |                          |               |    |               |    |              |  |
| Selling, marketing and administration <sup>(1)</sup> |                          | 10,870,741    |    | 11,421,604    |    | 8,614,109    |  |
| Research and development <sup>(1)</sup>              |                          | 5,442,873     |    | 3,165,825     |    | 3,532,492    |  |
| Impairment loss                                      |                          | -             |    | 63,522        |    | -            |  |
| Loss on disposal of property and equipment           |                          | -             |    | 46,738        |    | -            |  |
| Other income, including interest                     |                          | (1,766,524)   |    | (66,872)      |    | (76,431)     |  |
| Operating expenses                                   |                          | 14,547,090    |    | 14,630,817    |    | 12,070,170   |  |
| Net loss from operations                             |                          | (13,095,737)  |    | (13,715,071)  |    | (12,070,170) |  |
| Change in fair value of contingent consideration     |                          | -             |    | (283,130)     |    | -            |  |
| Net loss before income tax recovery                  |                          | (13,095,737)  |    | (13,431,941)  |    | (12,070,170) |  |
| Income tax recovery                                  |                          | (297,940)     |    | (207,257)     |    | -            |  |
| Net loss   |                          | (12,797,797)  |    | (13,224,684)  |    | (12,070,170) |  |
| Deficit, beginning of year                           |                          | (104,075,356) |    | (90,850,672)  |    | (78,780,502) |  |
| Net loss   |                          | (12,797,797)  |    | (13,224,684)  |    | (12,070,170) |  |
| Deficit, end of year                                 | \$                       | (116,873,153) | \$ | (104,075,356) | \$ | (90,850,672) |  |
| Basic and diluted net loss per share                 | \$                       | (0.05)        | \$ | (0.06)        | \$ | (0.07)       |  |

<sup>(1)</sup> Certain prior period figures have been reclassified to conform with the current period's presentation.

The selected annual information for 2017, 2016 and 2015 can be further analyzed as follows:

Research and development costs can be analysed as follows:

|  |    | 2017       |    | 2016       |    | 2015      |
|--|----|------------|----|------------|----|-----------|
|  |    |            |    |            |    |           |
| Wages and benefits <sup>(1)</sup>      | \$ | 2,839,088  | \$ | 1,572,567  | \$ | 1,241,054 |
| Subcontract fees                       |    | 1,044,936  |    | 1,013,539  |    | 1,560,819 |
| Stock-based compensation               |    | 369,007    |    | 373,196    |    | 552,416   |
| Supplies                               |    | 1,189,842  |    | 206,523    |    | 178,203   |
|  |    |            |    |            |    |           |
|  | \$ | 5,442,873  | \$ | 3,165,825  | \$ | 3,532,492 |
| Stock-based compensation               | \$ | 2,805,917  | \$ | 3,697,068  | \$ | 4,265,704 |
| Stock-based compensation               | •  | 2 805 917  | 2  | 3 697 068  | •  | 4 265 704 |
| Wages and benefits <sup>(1)</sup>      |    | 2,574,978  |    | 2,800,878  |    | 1,306,051 |
| Depreciation and amortization          |    | 2,275,160  |    | 1,521,566  |    | 319,863   |
| General expenses <sup>(1)</sup>        |    | 1,038,857  |    | 1,292,341  |    | 1,012,340 |
| Professional fees                      |    | 624,941    |    | 715,716    |    | 812,115   |
| Management and consulting fees         |    | 229,577    |    | 611,861    |    | 665,771   |
| Rent and facility costs <sup>(1)</sup> |    | 1,321,311  |    | 782,174    |    | 232,265   |
|  |    | 10.050.511 | •  |            | Φ. | 0.644400  |
|  | \$ | 10,870,741 | \$ | 11,421,604 | \$ | 8,614,109 |

<sup>(1)</sup> Certain prior period figures have been reclassified to conform with the current period's presentation.

# Year Ended December 31, 2017 compared to Year Ended December 31, 2016

Net loss before taxes for the twelve-month period ended December 31, 2017 was \$13,095,737 compared to net loss before taxes of \$13,431,941 for the twelve months ended December 31, 2016. The loss of the year ended December 31, 2017 includes the operations of DenseLight and BB Photonics for the entire year, while the loss for the prior-year reflected the operations of the Company with those subsidiaries for less than the full twelve months (i.e., from May 11, 2016 for DenseLight and June 22, 2016 for BB Photonics).

# Sales

During the twelve-month period ended December 31, 2017, the Company reported revenue of \$2,794,044 through its DenseLight subsidiary compared to revenue of \$1,861,747 for the period reported in 2016. Revenue for the period ended December 31, 2017 was for twelve months, while the revenue in 2016 was only from May 11, 2016.

# R&D

Total R&D increased by \$2,277,048 from \$3,165,825 in 2016 to \$5,442,873 in 2017. For the purposes of the following R&D analysis, non-cash stock-based compensation of \$369,007 (2016 - \$373,196) has been excluded and is included with the analysis of non-cash stock-based compensation below.

R&D increased by 82% or \$2,281,237 to \$5,073,866 in 2017 from \$2,792,629 in 2016. R&D costs in 2016 included the activities of POET for the full twelve-month period and R&D of DenseLight and BB Photonics only from May 11, 2016 and June 22, 2016, respectively. The first twelve months of 2017 include R&D costs for the GaAs platform and the programs in InP integrated dielectrics and wafer-level packaging all associated with the Company's efforts to expand its product portfolio in datacom and sensing. In addition to 2016 costs only being costs of a partial year, increased HR and related costs also contributed to the increase over the prior year.

# General expenses

General expenses and rent increased by 14% or \$285,653 to \$2,360,168 in 2017 from \$2,074,515 in 2016. This increase was also a result of shortened activity during the prior-year related to the dates of acquisition of DenseLight and BB Photonics (i.e., May 11, 2016 and June 22, 2016, respectively).

#### Stock-based compensation

Non-cash stock-based compensation decreased by 22% or \$895,340 to \$3,174,924 in 2017 from \$4,070,264 in 2016. Departing employees and consultants who had unvested stock options contributed to the substantial reduction in 2017, as their unvested options were returned to the Company. 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").

# Management and consulting fees

Management and consulting fees decreased by 62% or \$382,284 from 2016. The expense in 2017 was \$229,577 as compared to \$611,861 in 2016. The resignation of Mr. Manocha from the position of Executive Chairman of the Board in February 2017 contributed to the decrease. This reduction in management and consulting fees was partially offset by an increase in wages and benefits for the compensation paid to Mr. Lazovsky who replaced Mr. Manocha as the Executive Chairman of the Board. Mr. Lazovsky is paid \$200,000 annually in his capacity as Executive Chairman as compared to \$500,000 that previously paid to Mr. Manocha

#### Wages and benefits

Wages and benefits decreased by 8% or \$225,900 to \$2,574,978 in 2017 compared to \$2,800,878 in the prior-year. Three principal factors contributed to the decrease: (1) 2016 wages included an accrued bonus of \$550,000 to the CEO and former COO, which was deferred and eventually paid in 2017; (2) 2016 wages also included wages paid to the former Executive Co-Chairman of the Board of \$136,655; and (3) 2016 wages included twelve months of wages for the former COO, Dr. Deshmukh who resigned in Q1 2017. These decreases were offset by: (1) the inclusion of the compensation of the new Executive Chairman of the Board; and (2) wages of DenseLight and BB Photonics for the entire 2017 as compared to only the period from May 11, 2016 and June 22, 2016 respectively.

#### Depreciation and amortization

Depreciation and amortization increased by 50% or \$753,594 to \$2,275,160 in 2017 from \$1,521,566 in the prior-year. The increase was a result of depreciation and amortization related to the property and equipment, patents and licenses, and intangible assets acquired during and after the acquisition of DenseLight and BB Photonics in 2016. The Company acquired \$11,118,460 of property and equipment, patents and licenses and intangible assets since May 2016.

#### Other Income

Other income in 2017 was \$1,766,524 as compared to \$66,872 in 2016. The Company is entitled to a recovery of certain qualifying expenses from the Economic Development Board (EDB) in Singapore. The increase is a result of both collected recoveries and an amount accrued to be received in 2018.

# Exchange Rate Risk

The Company is exposed to foreign currency risk with the Canadian dollar and Singapore dollar due to cash reserves and other current assets and liabilities that are maintained in those currencies, all of which are exposed to currency fluctuations. Most of the Company's operations are transacted in US dollars and Singapore Dollars. A 10% change in the Canadian dollar and Singapore dollar would increase or decrease other comprehensive loss by \$260,175.

#### Interest Rate Risk

Cash equivalents 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.

#### 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:

|              | 2017      |      | 2016    |
|--------------|-----------|------|---------|
|              |           |      |         |
| Current      | \$ 330,73 | 1 \$ | 125,610 |
| 31 - 60 days | 56,09     | 1    | 16,346  |
| 61 - 90 days |           | -    | 75,816  |
| > 90 days    | 107,10    | )    | 75,077  |
|              | \$ 493,92 | 5 \$ | 292,849 |

#### Year Ended December 31, 2016 compared to Year Ended December 31, 2015

The loss before taxes increased from \$12,070,170 for the year ended December 31, 2015 to \$13,431,941 for the year ended December 31, 2016, an increase of \$1,361,771. The 2016 loss includes \$3,182,562 loss from DenseLight and \$181,782 loss from BB Photonics. Significant changes period over period were as follows:

#### Sales

The Company reported sales of \$1,861,747 during 2016, wholly attributable to the newly acquired DenseLight subsidiary. No sales were reported in the 2015. Gross margin during the period was 49%. Due to the accounting rules relating to acquisitions, gross margin is lower than what would have been reported without related adjustments required under the rules. Finished goods inventory is carried at fair value on the date of acquisition, finished goods inventory was written up by \$84,654, this resulted in increased cost of sales and lower gross margin on inventory sold from the acquisition date to the period end. Adjusted gross margin for the period was 54%. Adjusted gross margin normalizes gross margin by reversing the impact of the fair value inventory adjustment.

## Research and Development

Total R&D decreased by \$366,667 from \$3,532,492 in 2015 to \$3,165,825 in 2016. For the purposes of the following R&D analysis, non-cash stock-based compensation of \$373,196 (2015 - \$552,416) has been excluded and is included with the analysis of non-cash stock-based compensation below.

R&D expense during 2016 decreased by \$187,447 or 6% from 2015. R&D expense was \$2,980,076 in 2015 and \$2,792,629 in 2016. While the Company added \$951,815 in R&D from both DenseLight and BB Photonics, cost reductions from synergies achieved through the integration of R&D programs of the entire Company along with outsourcing resulted in the cumulative R&D savings in 2016.

# Wages and Benefits

Wages and benefits had the most significant increase from the 2015 to 2016. The expense increased by \$1,494,827 or 114% from \$1,306,051 in 2015 to \$2,800,878 in 2016. The drivers behind this increase were; inclusion of wages and benefits of DenseLight from May 12, 2016 to December 31, 2016 of \$800,921 with no comparable DenseLight salaries expensed in 2015, and accrued but unpaid retention bonus to CEO included in the original employment agreement due and payable in mid-June 2016, the one year anniversary of the commencement of respective employment. The total bonus payable of \$450,000 was voluntarily deferred by the CEO until 2017. In order to manage cash flow, head office based management agreed to a temporary, non-recoverable 10-20% reduction in compensation that took effect on October 1, 2016.

## General Expenses and Rent

General expenses and rent increased by \$829,910 or 67% from \$1,244,605 in 2015 to \$2,074,515 in 2016. During 2016, the Company acquired DenseLight and BB Photonics. The Company incurred acquisition costs related to the acquisition that included extra travel, freight to ship equipment to Singapore and regulatory transaction costs. Additionally, the 2016 expense includes \$1,129,529 of general expenses of DenseLight from May 12, 2016 to December 31, 2016. These increases in 2016 were offset by higher than normal 2015 expenses related to investor relations and promotion.

#### Stock-based Compensation

Non-cash stock-based compensation decreased by \$747,856 or 16% from \$4,818,120 in 2015 to \$4,070,264 in 2016. 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 from time to time consistent with the provisions of the 2016 Plan which grants discretion to the Board of Directors.

#### Depreciation and Amortization

Depreciation and amortization expense in 2015 was \$319,863 as compared to \$1,521,566 in 2016. The increase of \$1,201,703 included \$1,093,037 of depreciation and amortization relating to the new property and equipment and customer relationship acquired in the acquisition of DenseLight and BB Photonics, which amounted to \$8,892,160.

#### Change in fair values

The purchase and sale agreement relating to the purchase of DenseLight provided for an additional \$1,000,000 worth of shares to be issued to the sellers should gross revenue from DenseLight exceed certain targets for 2016. The fair value of this contingent consideration was determined to be \$283,130. DenseLight did not exceed the established revenue targets for 2016; the Company has therefore adjusted the fair value of contingent consideration to nil through earnings.

## Impairment and loss on disposal of equipment

In 2016, the Company recorded an impairment loss of \$63,522 and a loss on disposal of equipment of \$46,738. Management determined that certain equipment would not be used to generate future cash flows and committed to a plan of disposal. A market approach was used to determine the equipment's fair value less cost of 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 \$35,000, which is greater than its value in use. The Company recorded an impairment loss of \$63,522 on the equipment and reclassified \$35,000 from property and equipment to non-current assets held for sale. The equipment was sold in July 2016.

The Company reduced its operations in Toronto and disposed of \$27,806 of property and equipment for proceeds of \$2,195 while recording a loss of \$16,931 on the sale. The Company also disposed of an additional \$64,747 of property at a loss of \$29,807.

### Exchange Rate Risk

The Company is exposed to foreign currency risk with the Canadian dollar and Singapore dollar. The Company maintains bank accounts and cash reserves in three currencies with the majority of reserves currently in Canadian dollars, which has exposure to currency fluctuations. Most of the Company's operations are transacted in US dollars and Singapore Dollars. A 10% change in the Canadian dollar and Singapore dollar would increase or decrease other comprehensive loss by \$620,560.

# 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:

|              | 201 | 2015       |
|--------------|-----|------------|
|              |     |            |
| Current      | \$  | 125,610 \$ |
| 31 - 60 days |     | 16,346     |
| 61 - 90 days |     | 75,816     |
| > 90 days    |     | 75,077     |
|              |     |            |
| Current      | \$  | 292.849 \$ |

#### **B.** Liquidity and Capital Resources

The Company had working capital of \$7,140,119 on December 31, 2017 as compared to \$15,509,859 on December 31, 2016.

The Company's balance sheet as of December 31, 2017 reflects assets with a book value of \$25,205,772, compared to \$35,505,597 as of December 31, 2016. Thirty-two (32%) of the book value, or \$7,950,712, was in current assets consisting primarily of cash and short-term investments, compared to 48%, or \$17,134,203 as of December 31, 2016.

The Company is in a position to cover its liabilities as they come due, however, due to the continuation of losses, the Company will need to seek debt or equity financing to fund its operations. Consistent with its need for additional financing, on March 21, 2018, the Company completed a 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). Additionally, subsequent to December 31, 2017 through April 23, 2018, the Company raised \$1,131,921 from the exercise of warrants and stock options. Refer to Subsequent Events for further details.

## **Operating Activities**

Due to the high cost and relatively long development cycles related to GaAs platform, the Company determined that it should not proceed with the GaAs development program without a strategic partner and the funding such a partner would provide. Instead, the Company focused on the nearer-term, higher return on investment opportunities by addressing the larger, high-growth markets afforded to it with the InP-based hybrid technology, while at the same time seeking a partner for the continued development and commercialization of our unique GaAs platform.

Consistent with the new focus on InP-based hybrid technology, the Company committed to introducing at least two new products for 2017. In line with this commitment, on July 17, 2017 the Company announced that its Narrow Linewidth Laser products have demonstrated industry-leading performance with "superwide" tunability for high resolution sensing applications, such as gas & chemical sensing, coherent communication, meteorological sensing and atmospheric LIDAR; additional developments, including the incorporation of dielectric waveguides and wafer-level packaging is expected to accelerate growth in the sensing product line in 2018 and beyond. The Corporation also announced that technical challenges related to the manufacturability of the monolithic GaAs platform, have delayed POET's development of a Gallium Arsenide (GaAs)-based optical engine.

On September 6, 2017, the Company began sampling Avalanche Photodiodes (APD) and PIN Photodiodes (PIN) for the 10G Datacom and Telecom markets. Additionally, it began sampling its Monitor Photodiode (MPD) arrays for applications in 100G Datacom applications.

In September, the Company also introduced a suite of specialized external cavity narrow linewidth (NLW) laser products. The NLW lasers are assembled in integrated laser modules (ILM) and provide feature rich extensions to the existing BF series ILMs. The new family will feature laser sources with lower Relative Intensity Noise (RIN) relative to current offerings and at the low-end include a standard CW capable light source (BF9C). A higher-end module added power tuning capability, lower RIN and improved temperature range (BF15); the flagship product offers highly integrated BF18 with even lower RIN and "super wide" tunability. These new product introductions primarily target a wide range of communication and sensing applications, including coherent communication, laser interferometry, LIDAR wind detection, long distance fiber, fiber array sensing and acoustic sensing.

The Company's board of directors approved the 2018 budget which continues to see commitments made to expanding and developing the product portfolio of DenseLight and growing its revenues. The Company's R&D efforts in 2017 resulted in the introduction of the Company's Optical Interposer Platform, which facilitates the co-packaging of electronics and optics in a single Multi-Chip Module (MCM). Based on the Company's Dielectric Waveguide technology, the Optical Interposer provides the ability to run electrical and optical interconnections side-by-side on the same interposer chip at a micrometer scale. The Optical Interposer represents an integral part of the Company's hybrid integrated optical engines and leverages the manufacturing processes and unique capabilities of the dielectric waveguides.

For 2018 the Company expects to address the short-term and long-term growth plans of the Company including, but not limited to the following:

• 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 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, thus 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. In addition to product sales, we will pursue Non-Recurring Engineering ("NRE") revenues from end-use customers and/or from foundry operations. Over time, we expect to transfer our technology, under foundry licensing arrangements, to strategic partners, in particular vertical markets and to enable second source product licensing for high volume applications and eventually chipset royalties.
- Continue to invest in our capabilities and infrastructure. We intend to continue to invest in new products, new technology and our production infrastructure and facilities to maintain and strengthen our competitive position. Our R&D programs in Singapore are supported by the Singapore Economic Development Board, whose support will help to defer the costs associated with bringing innovative new products to market.
- Selectively pursue other opportunities that leverage our existing expertise. Our expertise in designing and manufacturing photonics devices, both discrete and integrated, positions us well to pursue applications in high growth markets and our Singapore operation is ideally located to support customers in Asia, where much of the growth is occurring.

## **Investing Activities**

The Company's investing activities include investing surplus cash in low risk guaranteed investment certificates, the purchase of property and equipment and the registration of new patents for use in the development of the Company's technology. When investing, the Company has a strict investment policy that includes investing any surplus capital only in highly liquid, highly rated financial instruments. The Company has no immediate plans for additional acquisitions, however, the Company will continue 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.

## Financing Activities

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 option until March 21, 2020 with each compensation unit comprising one common share and one-half compensation share purchase warrant. Each 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.

Subsequent to December 31, 2017 through April 23, 2018, the Company also raised \$1,131,921 from the exercise of warrants and stock options.

Since the financing in March 2018, the Company has not initiated additional equity or debt financing, however, as the need arises, the Company's preference is to seek additional funding, primarily by way of equity offerings, to carry out its business plan and to minimize risks of its operations. The market for equity financing for companies such as us is challenging and there can be no assurance that additional funding by way of equity financing will be available, or if available, on terms acceptable to the Company. The failure of the Company to obtain additional funding on a timely basis may result in the Company reducing or delaying one or more of its planned research, development and marketing programs and reducing related personnel, any of which could impair the current and future value of the business. Any additional equity financing, if secured, may result in dilution to the existing shareholders at the time of such financing. The Company may also seek additional funding from other sources, such, technology licensing, and strategic alliances, which, if obtained, may reduce the Company's interest in its projects or products. There can be no assurance, however, that any alternative sources of funding will be available.

## Capital Expenditures

The Company has an approved capital budget of \$4,206,000 for the 2018 fiscal year related to research and development equipment, manufacturing equipment and patent registration. In 2017, \$1,030,340 was spent in cash on acquiring development and manufacturing equipment and new patents. \$1,281,170 and \$374,200 were spent on similar capital expenditures in 2016 and 2015, respectively.

#### C. Research and Development

The Company is pursuing the development of an InP-based 100G optical engine using a hybrid approach to integration. At the core of this development are the active laser components supplied by DenseLight and the novel passive components based on BB Photonics technology. BB Photonics has designed a multi-layer, athermal waveguide and a spot size converter that are incorporated directly into the InP epitaxial stack. Our objective is to place several integrated and discrete components on a silicon optical bench that does not require active optical alignment, which would substantially reduce the cost of the device by eliminating the need for lenses and mirrors. We intend to offer both components to transceiver makers, as well as to develop our own 100G, scalable transceiver optical engine. Utilizing this approach, the Company has launched the POET Optical Interposer Platform (POIP) which facilitates the co-packaging of electronic and optics in a single multi-chip module. POIP will provide the ability to run electrical and optical interconnections side-by-side on the same interposer chip at a micrometer scale.

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 \$5,442,873, \$3,165,825 and \$3,532,492 of research and development expenses in 2017, 2016 and 2015 respectively which includes non-cash stock-based compensation of \$369,007, \$373,196 and \$552,416 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 as follows:

|                                   | 2017            | 2016            | 2015            |
|-----------------------------------|-----------------|-----------------|-----------------|
|                                   |                 |                 |                 |
| Wages and benefits <sup>(1)</sup> | \$<br>2,839,088 | \$<br>1,572,567 | \$<br>1,241,054 |
| Subcontract fees                  | 1,044,936       | 1,013,539       | 1,560,819       |
| Stock-based compensation          | 369,007         | 373,196         | 552,416         |
| Supplies                          | 1,189,842       | 206,523         | 178,203         |
|                                   |                 |                 |                 |
|                                   | \$<br>5,442,873 | \$<br>3,165,825 | \$<br>3,532,492 |

## 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, 2017:

|                                | Payments due by period (US\$) |           |           |           |          |  |  |
|--------------------------------|-------------------------------|-----------|-----------|-----------|----------|--|--|
| Contractual Obligations        | Total                         | <1 year   | 1-3 years | 3-5 years | >5 years |  |  |
| Operating Lease Obligations \$ | 491,468                       | \$411,349 | 80,119 \$ | _         | S -      |  |  |

# 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.

|                         |  |     | Date First Elected or<br>Appointed a Director or |
|-------------------------|--|-----|--|
| Name                    | Positions  | Age | Officer  |
| Jean-Louis Malinge      | Director   | 64  | September 5, 2017                                |
| Ajit Manocha (3)(4)     | Former Chairman and Director                                     | 66  | July 7, 2014                                     |
| Dr. Suresh Venkatesan   | Chief Executive Officer and Director                             | 51  | June 11, 2015                                    |
| Dr. Subhash Deshmukh(4) | Chief Operating Officer  | 56  | June 8, 2015                                     |
| Kevin Barnes            | Corporate controller and treasurer                               | 46  | December 1, 2012                                 |
| Thomas R. Mika          | Chief Financial Officer  | 66  | November 2, 2016                                 |
| Don Listwin             | Director   | 59  | January 22, 2018                                 |
| John F. O'Donnell(2)(3) | Corporate Governance and Nominating Committee Chair and Director | 71  | February 14, 2012                                |
| Chris Tsiofas (1)(2)(3) | Audit and Compensation Committee Chair and Director              | 50  | August 21, 2012                                  |
| Todd A. DeBonis (2)     | Director   | 53  | April 8, 2015                                    |
| David E. Lazovsky       | Chairman and Director  | 46  | April 8, 2015                                    |
| Mohandas Warrior (1)    | Director   | 57  | June 15, 2015                                    |
| Rajan Rajgopal          | President – DenseLight Semiconductor Pte. Ltd.                   | 54  | January 23, 2017                                 |

- (1) Member of Audit Committee
- (2) Member of Compensation Committee
- (3) Member of Corporate Governance and Nominating Committee
- (4) Resigned in 2017

Mr. Ajit Manocha has over 35 years of experience in the semiconductor industry with deep knowledge of semiconductor technology and operations. Mr. Manocha resigned as the Chairman of the Board on February 1, 2017 and resigned as a director of the Company on September 5, 2017. He continues to serve as a consultant to the Company.

*Dr. Deshmukh* was VP Emerging Technologies and Products at Applied Materials Inc. He was also VP and General Manager of the Plasma products Business Unit as well as VP Business Development for Varian Semiconductor Equipment Associates Inc. Dr. Deshmukh holds a PhD in Chemical Sciences and has authored or coauthored over 55 technical articles. Dr. Deshmukh has been granted over 27 patents and has several patents pending. Mr. Deshmukh resigned from the Company on January 13, 2017.

*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., following its merger in 2016 with CollabRx, Inc., the successor company to Tegal Corporation, a semiconductor capital equipment company (NASDAQ: TGAL). Following its spin-out from Motorola, Mika served on the Board of Directors of Tegal from 1992 to 2002 and became Tegal's CFO in 2002. From 2005-2012, he was Tegal's Chairman, President and CEO, and continued in those positions following the acquisition of CollabRx, which he later merged into Rennova Health. 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 Chief Financial Officer since December of 2012 and previously served as Controller beginning in 2008. 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. John F. O'Donnell has a BA (Economics) and an LLB, has practiced law in the City of Toronto since 1973 and has been on the Board of Directors of the Company since February of 2012. He is currently counsel to Stikeman Keeley Spiegel LLP. His practice is primarily in the field of corporate and securities law and, as such, he is and has been counsel to several publicly traded companies. Mr. O'Donnell is currently also Chairman of the Board of Peloton Mining Corporation. (PM: CSE).

*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 a partner with the Toronto Chartered Professional Accountancy firm of Myers Tsiofas Norheim LLP.

Todd A. DeBonis is a veteran semiconductor executive with over 27 years of expertise in sales, marketing and corporate development. For the last decade Mr. DeBonis was the Vice President of Global Sales and Strategic Development at TriQuint Semiconductor. Mr. DeBonis played an integral part in the recent merger of TriQuint with RFMD and subsequent creation of Qorvo, Inc. Mr. DeBonis previously held the position of Vice President, Worldwide Sales and Marketing at Centillium Communications. Mr. DeBonis also served as the Vice President, Worldwide Sales for Ishoni Networks and Vice President, Sales & Marketing for the Communications Division of Infineon Technologies North America. Mr. DeBonis has a B.S. degree in Electrical Engineering from the University of Nevada. Mr. DeBonis resigned from the board of director on January 22, 2018.

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 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 also serves as a managing director for YADAIS, a leading consulting firm in the photonics and telecommunications industries, and is a board member of EGIDE SA and CAILabs. EGIDE SA designs, manufactures and sells hermetic packages for the protection and interconnection of several types of electronic and photonic chips and CAIlabs is a venture-backed French innovative start-up founded in 2013 which has developed a unique spatial multiplexing platform. 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, D-wave, 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. Rajan Rajgopal is a seasoned semiconductor executive with senior previous roles at top multi-national leaders such as Micron, GLOBALFOUNDRIES and Texas Instruments. He holds an MSEE degree from the University of Maine and a BSEE degree from the University of Texas at Austin.

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.

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 and 2016. The Maximum Number is currently 44,352,885 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 44,352,885. 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. The term of each option grant shall be stated in the option agreement, provided that the term shall not exceed 10 years from the date of the grant. Prior to May 21, 2009, the term was limited to 5 years. At the meeting of the Board of Directors held on February 25, 2016, based on the report of Compensia, it was determined that in the future, 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. Prior to May 21, 2009, vesting was mandatory for all option grants. At the meeting of the Board of Directors held on February 25, 2016, based on the report of Compensia, it was determined that in the future, 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) (refer to ITEM 7. "Major Shareholders and Related Party Transactions" for information regarding indirect payments) to all of our Officers during fiscal year 2017 was \$1,302,643.

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 a very important element of the variable pay compensation and do not require cash disbursement from the Company. Stock options are also generally awarded to officers and consultants at the time of hire and are used as a recruitment tool to attract highly qualified and experienced executives and consultants to the Company. Stock options are also granted at other times during the year. As the Company is still continuing to develop its POET 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 midand long-term. Also the granting of stock options aligns officers' rewards with an increase in shareholder value over the 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 the value of the shareholders' investments.

The following table sets forth all annual and long-term compensation for services in all capacities to the Company for fiscal year 2017 of the Company.

|   |        |            |        | Non-Equity Incentive |           |           |           |         |        |           |
|---|--------|------------|--------|----------------------|-----------|-----------|-----------|---------|--------|-----------|
|   |        |            |        | Options              |           |           | lan       |         |        |           |
|   |        |            |        | Awards               | s(1)(2)   | Compo     | ensation  |         |        |           |
|   |        |            | Share- |                      |           |           |           |         |        |           |
|   |        |            | Based  |                      |           |           |           |         | All    |           |
|   |        |            | Awards |                      |           | Annual    | Long-term | Pension | Other  | Total     |
|   | Fiscal | Salary (2) | (1)(2) | No. of               | (US\$)(1) | Incentive | Incentive | Value   | Comp.  | Comp.     |
| Name and Principal Position                   | Year   | (US\$)     | (US\$) | Options              | (2)       | Plans     | Plans     | (US\$)  | (US\$) | (US\$)    |
| David Lazovsky                                |        |            |        |                      |           |           |           |         |        |           |
| Executive Chairman                            | 2017   | 183,333    | _      | 3,000,000            | 760,847   | _         | _         | _       | _      | 944,180   |
| Ajit Manocha Executive Chairman               | 2017   | 35,417     | _      | 562,500              | 111,902   | _         | _         | _       | _      | 147,319   |
| Dr. Suresh Venkatesan Chief Executive Officer | 2017   | 440,000    | _      | 3,000,000            | 596,813   | _         | _         | _       | _      | 1,036,813 |
| Dr. Subhash Deshmukh Chief Operating Officer  | 2017   | 27,384     | _      | _                    | _         | _         | _         |         | _      | 27,384    |
| Kevin Barnes Treasurer and Controller         | 2017   | 146,509    | _      | 250,000              | 49,734    | _         | _         | _       | _      | 196,243   |
| Thomas Mika                                   |        |            |        |                      |           |           |           |         |        |           |
| Chief Financial Officer                       | 2017   | 250,000    | _      | 1,500,000            | 320,430   | _         | _         | _       | _      | 570,430   |
| Rajan Rajgopal                                |        |            |        |                      |           |           |           |         |        |           |
| President of DenseLight                       | 2017   | 220,000    | _      | 1,000,000            | 214,967   | _         | _         | _       | _      | 434,967   |

<sup>(1)</sup> 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.

<sup>(2)</sup> 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, 2017:

|                          | Optio   | on-Based Awards                       |                              | Share-Based Awards   |   |  |  |
|--------------------------|---|---------------------------------------|------------------------------|--|---|--|--|
| Name                     | No. of Shares Underlying<br>Unexercised Options (#) | Option Exercise<br>Price (CA\$/share) | Option<br>Expiration<br>Date | Value of Unexercised<br>In-The Money<br>Options (1) (US\$) | Number of<br>Shares or Units of<br>Shares That Have<br>Not Vested (#) | Market or Payout Value<br>of Share- Based<br>Awards That Have<br>Not Vested (US\$) |  |
| David Lazovsky           | 25,000  | 1.54                                  | June 12,<br>2020             | _  | N/A   | N/A  |  |
| Duvia Lazovsky           | 250,000   | 1.99                                  | April 08, 2020               | -  | N/A   | N/A  |  |
|                          | 150,000   | 0.86                                  | July 07,<br>2026             |  | N/A   | N/A  |  |
|                          | 3,000,000   | 0.39                                  | Feb 1, 2027                  | -  | N/A   | N/A  |  |
| Ajit Manocha             | 2,000,000   | 1.75                                  | July 03,<br>2019             | -  | N/A   | N/A  |  |
|                          | 100,000   | 1.24                                  | Aug. 12,<br>2019             | -  | N/A   | N/A  |  |
|                          | 200,000   | 1.54                                  | Jun. 12,<br>2020             | -  | N/A   | N/A  |  |
|                          | 200,000   | 0.86                                  | July 7,<br>2026              | -  | N/A   | N/A  |  |
|                          | 562,500   | 0.28                                  | July 13,<br>2027             | -  | N/A   | N/A  |  |
| Kevin Barnes             | 25,000  | 0.23                                  | Feb. 16,<br>2022             | -  | N/A   | N/A  |  |
|                          | 100,000   | 0.44                                  | Nov. 14,<br>2018             | -  | N/A   | N/A  |  |
|                          | 100,000   | 0.49                                  | Aug. 13,<br>2018             | -  | N/A   | N/A  |  |
|                          | 25,000  | 0.51                                  | Sep. 28,<br>2021             | -  | N/A   | N/A  |  |
|                          | 50,000  | 0.76                                  | Feb. 28,<br>2021             | -  | N/A   | N/A  |  |
|                          | 50,000  | 1.24                                  | Aug. 12,<br>2019             | -  | N/A   | N/A  |  |
|                          | 50,000  | 1.54                                  | June 12,<br>2020             | -  | N/A   | N/A  |  |
|                          | 25,000  | 1.08                                  | Aug. 13,<br>2020             | -  | N/A   | N/A  |  |
|                          | 100,000   | 0.86                                  | July 7,<br>2026              | -  | N/A   | N/A  |  |
|                          | 250,000   | 0.28                                  | July 31,<br>2027             | -  | N/A   | N/A  |  |
| Thomas Mika              | 1,000,000   | 0.62                                  | Nov 2,<br>2026               | -  | N/A   | N/A  |  |
|                          | 500,000   | 0.385                                 | Jan 16,<br>2027              | -  | N/A   | N/A  |  |
|                          | 1,000,000   | 0.28                                  | July 13,<br>2027             | -  | N/A   | N/A  |  |
| Dr. Suresh<br>Venkatesan | 6,357,000   | 1.40                                  | June 15,<br>2020             | -  | N/A   | N/A  |  |
|                          | 300,000   | 0.86                                  | July 7,2026<br>July 13,      | -  | N/A   | N/A  |  |
|                          | 3,000,000   | 0.28                                  | 2027                         | -  | N/A   | N/A  |  |
| Dr. Subhash<br>Deshmukh  | 666,666   | 1.62                                  | Jun 30,<br>2018              | -  | N/A   | N/A  |  |
|                          | 78,125  | 0.96                                  | Jun 30,<br>2018              | -  | N/A   | N/A  |  |
| Rajan Rajgopal           | 500,000   | 0.36                                  | Jan 23,2027                  | -  | N/A   | N/A  |  |
|                          | 500,000   | 0.28                                  | Jul 13,<br>2027              | -  | N/A   | N/A  |  |

<sup>(1)</sup> This amount is calculated based on the difference between the market value of the shares underlying the options as of December 31, 2017, being CAD \$0.21 (US\$0.17), and the exercise or base price of the option. The exchange rate used in these calculations to convert CAD to USD was 0.7953, being the closing price at December 31, 2017.

The value vested or earned during fiscal year 2017 of incentive plan awards granted to NEOs are as follows:

|          |                                   |                                   | Non-Equity Incentive Plan     |
|----------|-----------------------------------|-----------------------------------|-------------------------------|
|          | Option-Based Awards – Value       | Share-Based Awards – Value Vested | Compensation – Value Earned   |
| NEO Name | Vested During the Year (1) (US\$) | <b>During the Year (US\$)</b>     | <b>During the Year (US\$)</b> |

| Ajit Manocha      | - | N/A | N/A |
|-------------------|---|-----|-----|
| Kevin Barnes      | - | N/A | N/A |
| Suresh Venkatesan | - | N/A | N/A |
| Subhash Deshmukh  | - | N/A | N/A |
| Rajan Rajgopal    | - | N/A | N/A |
| David Lazovsky    | - | N/A | N/A |

<sup>(1)</sup> 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 2017 for each director who is not also an officer.

|                                |                       |                         | Share-                        | Non-Equity Options-Based Incentive Plan Awards(1)(2) Compensation |         |                              |                                 |                            |                          | All                      |  |
|--------------------------------|-----------------------|-------------------------|-------------------------------|---|---------|------------------------------|---------------------------------|----------------------------|--------------------------|--------------------------|--|
| Name and Principal<br>Position | Fiscal<br>Year<br>(6) | Salary<br>(2)<br>(US\$) | Based<br>Awards (1)<br>(US\$) | No. of<br>Shares  | (US\$)  | Annual<br>Incentive<br>Plans | Long-term<br>Incentive<br>Plans | Pension<br>Value<br>(US\$) | Other<br>Comp.<br>(US\$) | Total<br>Comp.<br>(US\$) |  |
| John F. O'Donnell(3)           | 2017                  | 46,435                  | _                             | 625,000   | 124,336 | _                            | _                               | _                          |                          | 170,771                  |  |
| Todd. A. DeBonis               | 2017                  | 35,750                  | _                             | 562,500   | 111,902 | _                            | _                               | _                          | _                        | 147,652                  |  |
| David E. Lazovsky(4)           | 2017                  | 5,667                   | _                             | _   | _       | _                            | _                               | _                          | _                        | 5,667                    |  |
| Chris Tsiofas                  | 2017                  | 56,570                  | _                             | 687,500   | 136,770 |                              | _                               | _                          | _                        | 193,340                  |  |
| Mohan Warrior                  | 2017                  | 35,750                  | _                             | 562,500   | 111,902 | _                            | _                               | _                          | _                        | 147,652                  |  |
| Ajit Manocha (4)               | 2017                  | 20,083                  | _                             |   | _       | _                            | _                               | _                          | _                        | 20,083                   |  |
| Jean-Louie Malinge             | 2017                  | 10,000                  | _                             | 525,500   | 115,099 | _                            | _                               | _                          | _                        | 125,099                  |  |

From January 1, 2017 to March 31, 2017, the outside, or non-management, directors were paid an annual fee of \$32,000 for acting as a director, plus \$1,500 per board meeting attended and \$750 per committee meeting - paid quarterly. Committee Chairs were entitled to receive an additional \$8,000 annually. Mr. O'Donnell serves as Chair of the Corporate Governance and Nominating Committee and Mr. Tsiofas serve as Chair of the Audit and Compensation Committees.

Effective April 1, 2017, non-executive directors are paid \$120,000 annually, consisting of a cash retainer of \$30,000, plus stock options equal to \$90,000 (based on a Black-Scholes valuation). No additional fees are paid for attending board or committee meetings. An additional \$10,000 in cash and \$10,000 in value of options are granted to each standing committee chair. The options vest quarterly over the one-year term of service as directors. The 2017 director compensation reflects the compensation arrangement from January to March 2017 and the new arrangement that became effective April 1, 2017.

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, 2017:

<sup>(1)</sup> 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.

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

<sup>(3)</sup> The firm of Stikeman Keeley Spiegel LLP, of which Mr. O'Donnell is counsel, billed the sum of \$115,660 for legal fees and disbursements incurred in 2017.

<sup>(4)</sup> Option based awards and the related value are included in the officer compensation section

|                    | Option-Based Awards                                       |                                       |                   |  |   | d Awards  |
|--------------------|---|---------------------------------------|-------------------|--|---|---|
| Name               | No. of Shares<br>Underlying<br>Unexercised Options<br>(#) | Option Exercise Price<br>(CA\$/share) | Option Expiration | Value of<br>Unexercised In-<br>The Money<br>Options (1) (US\$) | Number of<br>Shares or Units of<br>Shares That Have<br>Not Vested (#) | Market or<br>Payout Value<br>of Share- Based<br>Awards That Have<br>Not Vested (US\$) |
| John F. O'Donnell  | 150,000   | 0.23                                  | 16-Feb-22         | -  | N/A   | N/A   |
|                    | 12,500  | 0.345                                 | 19-Aug-20         | -  | N/A   | N/A   |
|                    | 625,000   | 0.28                                  | 13-Jul-27         | -  | N/A   | N/A   |
|                    | 300,000   | 0.49                                  | 13-Aug-18         | -  | N/A   | N/A   |
|                    | 300,000   | 1.24                                  | 12-Aug-19         | =  | N/A   | N/A   |
|                    | 100,000   | 1.54                                  | 12-Jun-20         | -  | N/A   | N/A   |
|                    | 150,000   | 0.86                                  | 07-Jul-26         | -  | N/A   | N/A   |
| Chris Tsiofas      | 687,500   | 0.28                                  | 13-Jul-27         | -  | N/A   | N/A   |
|                    | 300,000   | 0.49                                  | 13-Aug-18         | -  | N/A   | N/A   |
|                    | 300,000   | 1.24                                  | 12-Aug-19         | -  | N/A   | N/A   |
|                    | 300,000   | 1.54                                  | 12-Jun-20         | -  | N/A   | N/A   |
|                    | 150,000   | 0.86                                  | 07-Jul-26         | -  | N/A   | N/A   |
| Todd A. DeBonis    | 275,000   | 1.54                                  | 12-Jun-20         | -  | N/A   | N/A   |
|                    | 250,000   | 1.99                                  | 08-Apr-20         | -  | N/A   | N/A   |
|                    | 150,000   | 0.86                                  | 07-Jul-26         | -  | N/A   | N/A   |
|                    | 562,500   | 0.28                                  | 13-Jul-27         | -  | N/A   | N/A   |
| Jean-Louis Malinge | 525,000   | 0.30                                  | 05-Sep-27         | -  | N/A   | N/A   |
| Mohan Warrior      | 562,500   | 0.28                                  | 13-Jul-27         | -  | N/A   | N/A   |

<sup>(1)</sup> This amount is calculated based on the difference between the market value of the shares underlying the options as of December 31, 2017, being CAD \$0.21 (US\$0.17), and the exercise or base price of the option. The exchange rate used in these calculations to convert CAD to USD was 0.7953, being the closing price at December 31, 2017.

12-Jun-20

07-Jul-26

N/A

N/A

N/A

N/A

The value vested or earned during fiscal year 2017 of incentive plan awards granted to Directors who are not also named executive officers are as follows:

1.54

0.86

| Director Name      | Option-Based Awards – Value<br>Vested During the Year (1) (US\$) |     |     |
|--------------------|--|-----|-----|
| Todd A. DeBonis    | -  | N/A | N/A |
| John F. O'Donnell  | -  | N/A | N/A |
| Jean-Louis Malinge | -  | N/A | N/A |
| Chris Tsiofas      | -  | N/A | N/A |
| Mohan Warrior      | -  | N/A | N/A |

<sup>(1)</sup> 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

250,000

150,000

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:

Mr. Barnes has 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 at a monthly rate of CA\$11,667. The Company may terminate the arrangement without cause on six months' notice or equivalent compensation.

Dr. Deshmukh entered into an Executive Employment Agreement with an effective date of June 8, 2015 wherein (i) he will be paid US\$250,000 (subsequently amended to US\$300,000 effective January 1, 2016) 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 up to a maximum of US\$250,000; (iii) he was granted 1,500,000 stock options vesting over 4 years; (iv) he was to receive a severance of six months' salary, if terminated during the first year of employment, plus two months' salary additional per each full year of employment thereafter, up to a maximum of twelve months on termination of employment by the Company, other than for cause. Mr. Deshmukh agreed to reduce his compensation by 20%, effective October 2016. On January 13, 2017, Dr. Deshmukh resigned as COO of the Company. No termination payments were paid to Dr. Deshmukh.

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 atwill 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 is eligible for a signing bonus of US \$450,000 payable on the first anniversary of the effective date provided that the Executive Employment Agreement has not been terminated prior to that 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 reduce his compensation by 20% effective October 2016.

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.

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.

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 months 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 eight directors, including four 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 2017, the Board held seven regularly scheduled meetings. 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, based on its standards, that Messrs. Tsiofas, Malinge, DeBonis and Warrior were independent.

#### Directors' Service Contracts

Messrs. Venkatesan and Lazovsky entered into employment contracts 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 Corporate Governance and Nominating Committee, and (4) a Disclosure Committee. Committee charters, if any, can be found at www.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 four members: Chris Tsiofas (Chair), Don Listwin, Peter Charbonneau and Mohandas Warrior. All four 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: Chris Tsiofas (Chair), John O'Donnell and Don Listwin. Mr. Tsiofas was appointed chair of the Compensation Committee on November 14, 2014. Chris Tsiofas and Todd DeBonis are independent. Mr. O'Donnell is retained by the Company as company counsel.

The Compensation Committee discusses and makes recommendations to the Board for approval or disapproval of all compensation issues that pertain to the Company. 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) review 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.

## 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 proper. The Company's Code of Ethics may be inspected on the Company's website at www.poet- technologies.com and is filed as an Exhibit to this Annual Report.

## D. Employees

As of December 31, 2017, the Company had 68 full-time employees and 5 consultants, including senior management. 5 employees and 1 consultant work at our lab facility either as support staff or are engaged in research and development initiatives; 1 employee and 3 consultants are employed at the Canadian office; 63 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, 2016, the Company had 71 full-time employees and 2 consultants, including senior management. 8 employees and 1 consultant work at our lab facility either as support staff or are engaged in research and development initiatives; 1 employee and 1 consultant are employed at the Canadian office; 62 employees are employed at our fabrication facility in Singapore. None of the Company's employees are covered by collective bargaining agreements.

At December 31, 2015, the Company had 10 full-time employees and 5 consultants, including senior management; 9 employees and 3 consultants work at our lab facilities either as support staff or are engaged in research and development initiatives; 1 employee and 2 consultants are employed at the Canadian office. None of the Company's employees are 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 23, 2018. 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 23, 2018. 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 |
| Directors and Officers:         |                        |                  |
| Jean-Louie Malinge              | 525,000(2)             | 0.20%            |
| Ajit Manocha                    | 3,062,500(3)           | 1.18%            |
| Chris Tsiofas                   | 1,762,500(4)           | 0.68%            |
| John F. O'Donnell               | 1,667,500(5)           | 0.64%            |
| Thomas Mika                     | 2,500,000(6)           | 0.96%            |
| Kevin Barnes                    | 792,463(7)             | 0.30%            |
| Todd DeBonis                    | 1,237,500(8)           | 0.48%            |
| David Lazovsky                  | 3,425,000(9)           | 1.32%            |
| Mohandas Warrior                | 962,500(10)            | 0.37%            |
| Suresh Venkatesan               | 9,697,000(11)          | 3.73%            |
| Subhash Deshmukh                | 744,791(12)            | 0.29%            |
| Rajan Rajgopal                  | 1,000,000(13)          | 0.38%            |
| Directors and Officers Subtotal | 27,376,754             | 10.53%           |
| Major Shareholders:             |                        |                  |

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.
- (2) Includes: (i) zero common shares issued and outstanding and (ii) 525,000 common shares that can be obtained upon the exercise of options or warrants within sixty (60) days.
- (3) Includes: (i) zero common shares issued and outstanding and (ii) 3,062,500 common shares that can be obtained upon the exercise of options or warrants within sixty (60) days.
- (4) Includes: (i) 25,000 common shares issued and outstanding and (ii) 1,737,500 common shares that can be obtained upon the exercise of options or warrants within sixty (60) days.
- (5) Includes: (i) 30,000 common shares issued and outstanding and (ii) 1,637,500 common shares that can be obtained upon the exercise of options or warrants within sixty (60) days.
- (6) Includes: (i) zero common shares issued and outstanding and (ii) 2,500,000 common shares that can be obtained upon the exercise of options or warrants within sixty (60) days.
- (7) Includes: (i) 17,463 common shares issued and outstanding and (ii) 775,000 common shares that can be obtained upon the exercise of options or warrants within sixty (60) days.
- (8) Includes: (i) zero common shares issued and outstanding and (ii) 1,237,000 common shares that can be obtained upon the exercise of options or warrants within sixty (60) days.
- (9) Includes: (i) zero common shares issued and outstanding and (ii) 3,425,000 common shares that can be obtained upon the exercise of options or warrants within sixty (60) days.
- (10) Includes: (i) zero common shares issued and outstanding and (ii) 962,500 common shares that can be obtained upon the exercise of options or warrants within sixty (60) days.
- (11) Includes: (i) 40,000 common shares issued and outstanding and (ii) 9,657,000 common shares that can be obtained upon the exercise of options or warrants within sixty (60) days.
- (12) Includes: (i) zero common shares issued and outstanding and (iii) 744,791 common shares that can be obtained upon the exercise of option or warrants within sixty days.
- (13) Includes: (i) zero common shares issued and outstanding and (iii) 1,000,000 common shares that can be obtained upon the exercise of option or warrants within sixty days

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

### 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 23, 2018, there were a total of 448 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 23, 2018, U.S. holders of record held approximately 1.25% 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

The firm of Stikeman Keeley Spiegel LLP, of which Mr. O'Donnell is counsel, billed the sum of \$115,660 for legal fees and disbursements incurred in 2017 (2016 - \$113,250).

## 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 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 option until March 21, 2020 with each compensation unit comprising one common share and one-half compensation share purchase warrant. Each 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.

Subsequent to December 31, 2017 through April 23, 2018, the Company also raised \$1,131,921 from the exercise of warrants and stock options.

## 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\$) | Ţ  | Low (CA\$) |
|--------------------|-------------|----|------------|
| Monthly            |             |    |            |
| March 31, 2018     | \$<br>0.79  | \$ | 0.46       |
| February 28, 2018  | \$<br>0.64  | \$ | 0.22       |
| January 31, 2018   | \$<br>0.40  | \$ | 0.19       |
| December 31, 2017  | \$<br>0.27  | \$ | 0.21       |
| November 30, 2017  | \$<br>0.29  | \$ | 0.22       |
| October 31, 2017   | \$<br>0.36  | \$ | 0.28       |
| Quarterly          |             |    |            |
| December 31, 2017  | \$<br>0.36  | \$ | 0.21       |
| September 30, 2017 | \$<br>0.42  | \$ | 0.17       |
| June 30, 2017      | \$<br>0.43  | \$ | 0.27       |
| March 31, 2017     | \$<br>0.51  | \$ | 0.31       |
| December 31, 2016  | \$<br>0.81  | \$ | 0.27       |
| September 30, 2016 | \$<br>0.95  | \$ | 0.76       |
| June 30, 2016      | \$<br>1.44  | \$ | 0.83       |
| March 31, 2016     | \$<br>1.10  | \$ | 0.84       |
| December 31, 2015  | \$<br>1.20  | \$ | 0.72       |
| September 30, 2015 | \$<br>1.68  | \$ | 0.62       |
| Yearly             |             |    |            |
| December 31, 2017  | \$<br>0.51  | \$ | 0.17       |
| December 31, 2016  | \$<br>1.44  | \$ | 0.27       |
| December 31, 2015  | \$<br>2.00  | \$ | 0.62       |
| December 31, 2014  | \$<br>2.87  | \$ | 0.49       |
| December 31, 2013  | \$<br>0.74  | \$ | 0.20       |

## 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. Selling Shareholders

Not Required.

# F. Expenses of the Issue

Not Required.

#### ITEM 10. ADDITIONAL INFORMATION

### A. Share Capital

Not Required.

# B. Articles of the Corporation

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 Keezic 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 preemptive 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 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 2018 threshold for WTO investors that are SOEs will be \$398 million based on the book value of the Canadian business' assets, up from \$379 million in 2017.

The 2018 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

The Company had a shareholders rights plan ("SRP") (often referred to as a "poison pill") in place since 2014. Under the terms of the SRP and regulatory requirements, the SRP was scheduled to expire automatically unless re-approved by shareholders at the meeting of shareholders on July 13, 2017. The management and directors of the Company determined not to ask the shareholders to renew the SRP because they believe that it is no longer necessary to protect the interests of the shareholders at this time, and, as such, the SRP expired.

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 21, 2008, the Company entered into an Agreement with BAE Systems Information And Electronic Systems Integration, Inc. ("BAE"), with a term of 15 years, whereby BAE and the Company initiated a joint development program of the Company's POET technology, with royalties running from each to the other for licensed products sold. This Agreement was supplemented on February 25, 2015 to expand the scope of work to be performed through 2015. At present, there has not been any joint process development or transfer under this agreement, and none is anticipated in the future.

- 2. On April 28, 2003, the Company entered into a License Agreement with the University of Connecticut ("UCONN"), as amended on April 15, 2014 whereby UCONN granted the Company an exclusive license to the intellectual property developed under the direction of Dr. Taylor that is owned or jointly owned by UCONN for the payment of \$50,000 due in the first and each subsequent year after the Company has revenue of \$100,000 from the products developed pursuant to the licensed intellectual property, such amounts of consideration subject to increase by 25% every two years, up to a maximum of \$1,000,000. In addition, the Company must pay annually to UCONN 3% of any sublicense revenue received for commercial, royalty bearing sublicenses of licensed intellectual property to third parties. By making a \$100,000 payment to UCONN in April 2007, the license became irrevocable. As consideration for the amendment entered into on April 15, 2014, changing the royalty rate to 3%, the Company issued 2,000,000 common shares, subject to approval of the TSXV, which were restricted from trading until May 31, 2016.
- 3. On October 21, 2010, the Company entered into a Lease Agreement, as amended on March 20, 2013, with UCONN whereby the Company leases property from UCONN beginning on April 1, 2010 and extending through March 31, 2014. Monthly rent increases from \$6,130 in the first three months of year one to \$10,966 in year five. This Agreement was renewed on December 11, 2014 for a period of one year commencing April 1, 2015 and ending on March 31, 2016. The renewal provides for an annual rent of \$158,894, discounted to \$144,490 if the full amount is prepaid. This Lease Agreement was not renewed in 2016.
- 4. On February 15, 2013, the Company entered into a Service Agreement with True South Renewables, Inc. ("True South"), for a period of five years, whereby the True South will perform monitoring and maintenance services on solar trackers installed by the Company prior to the discontinuation of the solar business and divestiture of the solar assets. The Company will pay a minimum of \$6,000.00 in the first year and \$8,013.00 in the fifth year, in addition to hourly charges for labor and travel.
- 5. 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.
- 6. 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.
- 7. 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.

## 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 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 will be taxed at the rate applicable to long-term capital gains (a maximum rate of 20% for taxable years beginning after January 1, 2013), provided that such dividends meet the requirements of "qualified dividend income." For this purpose, qualified dividend income generally includes dividends paid by a non-U.S. corporation if certain holding period and other requirements are met and 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. No dividend received by a U.S. Holder will be a qualified dividend (i) if the U.S. Holder held the common share with respect to which the dividend was paid for less than 61 days during the 121-day period beginning on the date that is 60 days before the ex-dividend date with respect to such dividend, excluding for this purpose, under the rules of Code Section 246(c), any period during which the U.S. Holder has an option to sell, is under a contractual obligation to sell, has made and not closed a short sale of, is the grantor of a deep-in-the-money or otherwise nonqualified option to buy, or has otherwise diminished its risk of loss by holding other positions with respect to, such common share (or substantially identical securities); or (ii) to the extent that the U.S. Holder is under an obligation (pursuant to a short sale or otherwise) to make related payments with respect to positions in property substantially similar or related to the common share with respect to which the dividend is paid. If we were to be a "passive foreign investment company" (as such term is defined in the Code) for any taxable year, dividends paid on our common shares in such year or in the following taxable year would not be qualified dividends. In addition, a non-corporate U.S. Holder will be able to take a qualified dividend into account in determining its deductible investment interest (which is generally limited to its net investment income) only if it elects to do so; in such case the dividend will be 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.

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 has not held the common shares for at least 16 days of the 31-day period beginning on the date which is 15 days before the ex-dividend date with respect to such dividend, or to the extent such U.S. Holder is under an obligation to make related payments with respect to substantially similar or related property. Any days during which a U.S. Holder has substantially diminished its risk of loss on the common shares are not counted toward meeting the required 16-day holding period. Distributions of current or accumulated earnings and profits generally will be foreign source passive 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 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. A U.S. Holder that uses the cash method of accounting calculates the U.S. Dollar value of the proceeds received on the sale as of the date that the sale settles, while a U.S. Holder that uses the accrual method of accounting is required to calculate the value of the proceeds of the sale as of the "trade date," unless such U.S. Holder has elected to use the settlement date to determine its proceeds of sale. 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 rate of 20% for taxable years beginning after January 1, 2013). 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 disposition of common shares generally is allocated to U.S. source income. The deductibility of capital losses recognized on the sale, exchange or other 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.

### 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 nonresident 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. Such capital gain or loss ordinarily would be long-term if such U.S. Holder had held such common shares for more than one year at the time of the disposition. For non- corporate U.S. Holders, long-term capital gain is generally subject to a maximum U.S. federal income tax rate of 15% for taxable years beginning on or before December 31, 2012. The QEF election is made on a shareholder-by-shareholder basis, applies to all common shares held or subsequently acquired by an electing U.S. Holder and can be revoked only with the consent of the IRS.

As an alternative to making the QEF election, a U.S. Holder of PFIC stock which is publicly traded may in certain circumstances avoid certain of the tax consequences generally applicable to holders of a PFIC 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. Special rules apply if a U.S. Holder makes a mark-to-market election after the first taxable year in its holding period in which we are a PFIC. 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 continu

We believe we were not a PFIC for the year ending December 31, 2015 and do not expect to be classified as a PFIC for the year ending December 31, 2016. 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, 2016 or in a future taxable year. We will notify U.S. Holders in the event we conclude that we will be treated as a PFIC for any taxable year.

### Non-U.S. Holders

Except as described in "Information Reporting and Backup Withholding" below, a Non-U.S. Holder of common shares will not be subject to U.S. federal income or withholding tax on the payment of dividends on, or the proceeds from the disposition of, our common shares, unless, in the case of U.S. federal income taxes:

- such item is effectively connected with the conduct by the Non-U.S. Holder of a trade or business in the U.S. and, in the case of a resident of a country which has a treaty with the U.S., such item is attributable to a permanent establishment or, in the case of an individual, a fixed place of business, in the U.S.; or
- ) the Non-U.S. Holder is an individual who holds the common shares as a capital asset and is present in the U.S. for 183 days or more in the taxable year of the disposition of our common shares and certain other conditions are met.

#### 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.

Non-U.S. Holders generally are not subject to information reporting or backup withholding with respect to dividends paid on, or proceeds from the disposition of, our common shares, provided that such Non-U.S. Holder provides taxpayer identification number, certifies to its foreign status, 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 Paying Agents

Not Required.

## G. Statements by Experts

The consolidated financial statements of POET Technologies Inc. as of December 31, 2017, 2016 and 2015 included herein, have been audited by Marcum LLP, our independent registered accounting firm for that period, 185 Asylum St, 17th Floor, Hartford, CT 06103, 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. 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 Company's reports, Annual Reports and other information can be inspected on the SEC's website at www.sec.gov and such information can also be inspected and copies ordered at the public reference facilities maintained by the SEC at the following location: 100 F Street NE, Washington, D.C. 20549.

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 companies whose securities are registered under the Exchange Act.

We maintain a corporate website at 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 increase or decrease other comprehensive loss by \$260,175.

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

| Period                        | High (1) | Low (1) | Average (2) |
|-------------------------------|----------|---------|-------------|
| March 2018                    | 0.7807   | 0.7629  | 0.7738      |
| February 2018                 | 0.8163   | 0.7787  | 0.7968      |
| January 2018                  | 0.8142   | 0.7943  | 0.8043      |
| December 2017                 | 0.7991   | 0.7740  | 0.7833      |
| November 2017                 | 0.7895   | 0.7746  | 0.7842      |
| October 2017                  | 0.8035   | 0.7741  | 0.7935      |
| October 2017 — March 31, 2018 | 0.8163   | 0.7629  | 0.7893      |

<sup>(1)</sup> Bank of Canada monthly 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 2018                    | 0.7640   | 0.7544  | 0.7598      |
| February 2018                 | 0.7645   | 0.7503  | 0.7579      |
| January 2018                  | 0.7649   | 0.7478  | 0.7565      |
| December 2017                 | 0.7486   | 0.7388  | 0.7424      |
| November 2017                 | 0.7433   | 0.7324  | 0.7376      |
| October 2017                  | 0.7410   | 0.7302  | 0.7353      |
| October 2017 — March 31, 2018 | 0.7649   | 0.7302  | 0.7482      |

<sup>(1)</sup> Bank of Singapore monthly average rates

<sup>(2)</sup> Bank of Canada daily closing average rates

<sup>(2)</sup> 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) <u>Disclosure Controls and Procedures</u>

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, 2017. 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, 2017, 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, 2017 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 the audit committee financial expert. 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.

## 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 <a href="https://www.poet-technologies.com">www.poet-technologies.com</a> 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 investor relations department, 121 Richmond Street West, Suite 201, Toronto, Ontario M5H 2K1, 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.

|                   |      | Year Ended December 31, |    |         |
|-------------------|------|-------------------------|----|---------|
| Services Rendered | 201  | 7                       |    | 2016    |
|                   |      | (in US\$)               |    |         |
| Audit Fees (1)    | \$ 1 | 65,000                  | \$ | 97,000  |
| Tax Fees (2)      |      | 18,690                  |    | 8,650   |
| Total             | \$ 1 | 83,690                  | \$ | 105,650 |

<sup>(1)</sup> 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.

<sup>(2)</sup> 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, 2017, 2016 and 2015 and as of December 31, 2017, 2016 and 2015

# **ITEM 18. Financial Statements**

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

#### ITEM 19. Exhibits

- 1.1 Certificate and Articles of Continuance\*
- 1.2 Amended and Restated Bylaws\*\*
- 4.1 Asset Purchase Agreement with Tracker Acquisition, Inc., dated December 17, 2012\*
- 4.2 Agreement with BAE Systems Information And Electronic Systems Integration, Inc., dated May 21, 2008\*
- 4.3 License Agreement with the University of Connecticut, dated April 28, 2003, as amended April 15, 2014\*
- 4.4 Lease Agreement with the University of Connecticut, dated December 11, 2014.\*\*
- 4.5 Agency Agreement with IBK Capital Corp., dated February 14, 2013\*
- 4.6 Credit Agreement with TCA Global Credit Master Fund, LP, dated March 30, 2012\*
- 4.7 Memorandum of Understanding with Ajit Manocha, dated July 3, 2014\*\*
- 4.8 Letter of Agreement with Daniel DeSimone, dated March 28, 2014\*\*
- 4.9 Executive Employment Agreement with Peter Copetti, dated June 30, 2014\*\*
- 4.10 Shareholder Rights Plan Agreement between the Company and TMX Equity Transfer Services, Inc.\*\*
- 4.11 Consulting Agreement with Dr. Geoff Taylor, dated January 12, 2015\*\*
- 4.12 Employment Agreement with Stephane Gagnon, dated November 5, 2013\*
- 4.13 Employment Agreement with Suresh Venkatesan, dated June 10, 2015 \*\*\*
- 4.14 Employment Agreement with Subhash Deshmukh, dated June 8, 2015 \*\*\*
- 4.15 Employment Agreement with Rajan Rajgopal, dated December 27, 2016 \*\*\*\*
- 4.16 Employment Agreement with Thomas Mika, dated November 2, 2016 \*\*\*\*
- 4.17 Employment Agreement with Dave Lazovsky, dated February 1, 2017 \*\*\*\*
- 4.18 Consulting Agreement with Dave Lazovsky, dated July 1, 2016 \*\*\*\*
- 4.19 Agreement with the Singapore Economic Development Board, dated August 15, 2016\*\*\*\*
- 4.20 Sale and Purchase Agreement for DenseLight Semiconductors PTE, LTD, dated April 27, 2016\*\*\*\*
- 4.21 Sale and Purchase Agreement for BB Photonics Inc. dated May 16, 2016\*\*\*\*
- 4.22 2016 Stock Option Plan\*\*\*\*
- 4.23 Form of Option Agreement\*
- 4.24 Form of Warrant for Purchase of Common Shares\*
- 4.25 Stock Specimen Certificate\*
- 8.1 List of Subsidiaries: See ITEM 4.C.
- 11.1 Code of Business Conduct and Ethics \*\*
- 12.1 Certification of Principal Executive Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a)\*\*\*\*\*
- 12.2 Certification of Principal Financial Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a)\*\*\*\*\*
- 13.1 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\*\*\*\*
- 13.2 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\*\*\*\*
- 23.1 Consent of Marcum LLP, independent registered accounting firm\*\*\*\*\*
- \*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.
- \*\*Filed as an exhibit to the Company's annual Form 20-F on April 13, 2015 and incorporated herein by reference.
- \*\*\*Filed as an exhibit to the Company's annual Form 20-F on March 18, 2016 and incorporated herein by reference.
- \*\*\*\*Filed as an exhibit to the Company's annual Form 20-F on April 17, 2017 and incorporated herein by reference.
- \*\*\*\*\* Filed herewith.

### WHERE TO FIND ADDITIONAL INFORMATION

We file reports and other information with the Securities and Exchange Commission 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. 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.

#### 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 ensures 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, 2017, 2016 and 2015 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 27, 2018



### REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Directors of POET Technologies Inc.

### **Opinion on the Consolidated Financial Statements**

We have audited the accompanying consolidated financial statements of POET Technologies Inc. (the "Company"), which comprise the consolidated statements of financial position as at December 31, 2017, December 31, 2016 and December 31, 2015, and the related consolidated statements of operations and deficit, comprehensive loss, changes in shareholders' equity and cash flows for the years then ended, and the related notes, comprising a summary of significant accounting policies and other explanatory information (collectively referred to as the consolidated financial statements).

In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Company as at December 31, 2017, December 31, 2016 and December 31, 2015, and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board.

#### **Basis for Opinion**

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

# Auditors' Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with Canadian generally accepted auditing standards and the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement, whether due to error or fraud. Those standards also require that we comply with ethical requirements, including independence. We 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 are a public accounting firm registered with the PCAOB.

An audit includes performing procedures to assess the risks of material misstatements of the consolidated financial statements, whether due to error or fraud, and performing procedures to respond to those risks. Such procedures included obtaining and examining, on a test basis, audit evidence regarding the amounts and disclosures in the consolidated financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the Company's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Accordingly, we express no such opinion.

An audit also includes evaluating the appropriateness of accounting policies and principles used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained in our audits is sufficient and appropriate to provide a reasonable basis for our audit opinion.

Marcun 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 27, 2018



Marcum LLP = 555 Long Wharf Drive = 12th Floor = New Haven, Connecticut 06511 = Phone 203,781,9600 = Fax 203,781,9601 = www.marcumilp.com

# CONSOLIDATED STATEMENTS OF FINANCIAL POSITION (Expressed in US Dollars)

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

| 2017             | 17          | 2016                        |                                | 2015        |
|------------------|-------------|-----------------------------|--------------------------------|-------------|
| Assets           |             |                             |                                |             |
|                  |             |                             |                                |             |
| \$ 4,9           | ,974,478 \$ | 14,376,282                  | \$                             | 14,409,996  |
|                  | -           | 589,275                     |                                | -           |
| 4                | 493,925     | 292,849                     |                                | -           |
| 1,9              | ,957,727    | 758,917                     |                                | 150,923     |
| 5                | 524,582     | 1,116,880                   |                                |             |
| 7,9              | ,950,712    | 17,134,203                  |                                | 14,560,919  |
| Q 1              | ,278,170    | 9,364,210                   |                                | 947,10      |
|                  | 456,250     | 449,676                     |                                | 426,813     |
|                  | 839,637     | 876,865                     |                                | 420,01.     |
|                  | ,681,003    | 7,681,003                   |                                |             |
|                  | ,205,772 \$ | 35,505,957                  | \$                             | 15,934,839  |
| <del></del>      | ,_ ,_ , , , | 22,222,527                  |                                | 20,50 1,00  |
| Liabilities      |             |                             |                                |             |
|                  |             |                             |                                |             |
|                  | 810,593 \$  | 1,624,344                   | \$                             | 515,42      |
|                  | 810,593     | 1,624,344                   |                                | 515,421     |
| 1.2              | ,298,367    | 1,596,307                   |                                |             |
| 1,2              | 24,031      | 42,665                      |                                |             |
| 2,1              | ,132,991    | 3,263,316                   |                                | 515,42      |
| ,                |             |                             |                                |             |
| cholders' Equity |             |                             |                                |             |
| 102.4            | ,616,221    | 103,357,862                 |                                | 81,027,17   |
|                  | ,985,378    | 5,985,378                   |                                | 2,013,74    |
|                  | ,102,967    | 29,062,874                  |                                | 25,618,159  |
|                  | ,758,632)   | (2,088,117)                 |                                | (2,388,98)  |
|                  | ,873,153)   | (104,075,356)               |                                | (90,850,672 |
|                  | ,072,781    | 32,242,641                  |                                | 15,419,418  |
|                  | ,205,772 \$ | 35,505,957                  | \$                             | 15,934,839  |
|                  |             |                             |                                |             |
|                  |             | catesan                     |                                |             |
|                  |             | /s/ Suresh Venk<br>Director | /s/ Suresh Venkatesan Director |             |

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# CONSOLIDATED STATEMENTS OF OPERATIONS AND DEFICIT

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

| (Expressed in US Dollars)       |  |
|---------------------------------|--|
| For the Vears Ended December 31 |  |

Comprehensive loss

| For the Years Ended December 31,   | 2017                | 2016                | 2015               |
|--|---------------------|---------------------|--------------------|
| Revenue  | \$<br>2,794,044     | \$<br>1,861,747     | \$<br>-            |
|  |                     |                     |                    |
| Cost of sales (1)  | 1,342,691           | 946,001             | -                  |
| Gross margin   | 1,451,353           | 915,746             | -                  |
| Operating expenses   |                     |                     |                    |
| Selling, marketing and administration (Note 20) <sup>(1)</sup>   | 10,870,741          | 11,421,604          | 8,614,109          |
| Research and development (Note 20) <sup>(1)</sup>  | 5,442,873           | 3,165,825           | 3,532,492          |
| Impairment loss (Notes 2, 7 and 21)  | -                   | 63,522              | -                  |
| Loss on disposal of property and equipment (Note 7)  | -                   | 46,738              | -                  |
| Other income, including interest (Note 2)  | (1,766,524)         | (66,872)            | (76,431)           |
| Operating expenses   | 14,547,090          | 14,630,817          | 12,070,170         |
| Net loss from operations   | (13,095,737)        | (13,715,071)        | (12,070,170)       |
| Change in fair value of contingent consideration (Note 22)   | -                   | (283,130)           | -                  |
| Net loss before income tax recovery  | (13,095,737)        | (13,431,941)        | (12,070,170)       |
| Income tax recovery (Note 23)  | (297,940)           | (207,257)           | -                  |
| Net loss   | (12,797,797)        | (13,224,684)        | (12,070,170)       |
| Deficit, beginning of year   | (104,075,356)       | (90,850,672)        | (78,780,502)       |
| Net loss   | (12,797,797)        | (13,224,684)        | (12,070,170)       |
| Deficit, end of year   | \$<br>(116,873,153) | \$<br>(104,075,356) | \$<br>(90,850,672) |
| Basic and diluted net loss per share (Note 14)   | \$<br>(0.05)        | \$<br>(0.06)        | \$<br>(0.07)       |
| (1) Certain prior period figures have been reclassified to conform with the current period's presentation. |                     |                     |                    |
| CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS  |                     |                     |                    |
| (Expressed in US Dollars)  |                     |                     |                    |
| For the Years Ended December 31,   | 2017                | 2016                | 2015               |
| Net loss   | \$<br>(12,797,797)  | \$<br>(13,224,684)  | \$<br>(12,070,170) |
| Other comprehensive income (loss) - net of income taxes  |                     |                     |                    |
| Exchange differences on translating foreign operations   | 329,485             | 300,870             | (1,804,435)        |

\$

(12,468,312) \$

(12,923,814) \$

(13,874,605)

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

| For the Years Ended December 31,  | 2017              | 2016             | 2015             |
|---|-------------------|------------------|------------------|
|   |                   |                  |                  |
| Share Capital   |                   |                  |                  |
| Beginning balance   | \$<br>103,357,862 | \$<br>81,027,171 | \$<br>61,688,953 |
| Funds from the exercise of warrants and compensation warrants                       | -                 | 1,943,919        | 9,373,245        |
| Fair value of warrants and compensation warrants exercised                          | -                 | 901,417          | 4,444,912        |
| Funds from the exercise of stock options  | 123,528           | 1,654,988        | 2,703,436        |
| Fair value assigned to stock options exercised                                      | 134,831           | 1,737,879        | 2,816,625        |
| Commons shares issued on business acquisitions                                      | -                 | 12,050,000       | -                |
| Common shares issued to settle liabilities  | -                 | 1,843,629        | -                |
| Common shares issued on public offering   | -                 | 9,349,254        | -                |
| Warrants issued on public offering  | -                 | (5,985,378)      | -                |
| Share issue costs   | -                 | (1,165,017)      | -                |
| December 31,  | 103,616,221       | 103,357,862      | 81,027,171       |
| Warrants  |                   |                  |                  |
| Beginning balance   | 5,985,378         | 2,013,747        | 6,458,659        |
| Fair value of warrants issued   | -                 | 5,985,378        | -                |
| Fair value of warrants and compensation warrants exercised                          | -                 | (901,417)        | (4,444,912)      |
| Fair value of expired warrants  | -                 | (1,112,330)      | -                |
| December 31,  | 5,985,378         | 5,985,378        | 2,013,747        |
| Contributed Surplus   |                   |                  |                  |
| Beginning balance   | 29,062,874        | 25,618,159       | 23,616,664       |
| Stock-based compensation  | 3,174,924         | 4,070,264        | 4,818,120        |
| Fair value of stock options exercised   | (134,831)         | (1,737,879)      | (2,816,625)      |
| Fair value of expired warrants  | -                 | 1,112,330        | -                |
| December 31,  | 32,102,967        | 29,062,874       | 25,618,159       |
| Accumulated Other Comprehensive Loss  |                   |                  |                  |
| Beginning balance   | (2,088,117)       | (2,388,987)      | (584,552)        |
| Other comprehensive income (loss) attributable to common shareholders - translation |                   |                  |                  |
| adjustment  | 329,485           | 300,870          | (1,804,435)      |
| December 31,  | (1,758,632)       | (2,088,117)      | (2,388,987)      |
| Deficit   |                   |                  |                  |
| Beginning balance   | (104,075,356)     | (90,850,672)     | (78,780,502)     |
| Net loss  | (12,797,797)      | (13,224,684)     | (12,070,170)     |
| December 31,  | (116,873,153)     | (104,075,356)    | (90,850,672)     |
| Total shareholders' equity  | \$<br>23,072,781  | \$<br>32,242,641 | \$<br>15,419,418 |

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

# CONSOLIDATED STATEMENTS OF CASH FLOWS

(Expressed in US Dollars)

| For the Years Ended December 31,                                      |    | 2017            | 2016            | 2015         |
|---|----|-----------------|-----------------|--------------|
| CASH (USED IN) PROVIDED BY:   |    |                 |                 |              |
| OPERATING ACTIVITIES  |    |                 |                 |              |
| Net loss  | S  | (12,797,797) \$ | (13,224,684) \$ | (12,070,170) |
| Adjustments for:  | Ψ  | (12,777,777)    | (13,221,001)    | (12,070,170) |
| Depreciation of property and equipment (Note 7)                       |    | 2,183,963       | 1,448,525       | 276,139      |
| Amortization of patents and licenses (Note 8)                         |    | 53,969          | 49,775          | 43,722       |
| Amortization of intangibles (Note 9)                                  |    | 37,228          | 23,266          |              |
| Loss on disposition of property and equipment (Note 7)                |    | -               | 46,738          | _            |
| Impairment of non-current asset held for sale (Notes 2, 7 and 21)     |    | _               | 63,522          | _            |
| Stock-based compensation (Note 13)                                    |    | 3,174,924       | 4,070,264       | 4,818,120    |
| Change in fair value of contingent consideration (Note 22)            |    |                 | (283,130)       | - 1          |
| Income tax recovery (Note 23)   |    | (297,940)       | (207,257)       | -            |
| Deferred rent   |    | -               | 42,665          | -            |
| Net the second second second second                                   |    |                 |                 |              |
| Net change in non-cash working capital accounts:  Accounts receivable |    | (171 257)       | (77.415)        |              |
|   |    | (171,257)       | (77,415)        | 02.579       |
| Prepaid and other current assets                                      |    | (1,116,758)     | (443,590)       | 92,578       |
| Inventory   |    | 663,992         | (841,806)       | - 62 607     |
| Accounts payable and accrued liabilities                              |    | (894,013)       | (628,292)       | 63,697       |
| Cash flows from operating activities                                  |    | (9,163,689)     | (9,961,419)     | (6,775,914)  |
| INVESTING ACTIVITIES  |    |                 | 40.504          |              |
| Cash proceeds from acquisitions                                       |    | -               | 18,791          | -            |
| Proceeds from the disposal of property and equipment (Note 7)         |    |                 | 37,195          | -            |
| Purchase of property and equipment (Note 7)                           |    | (969,797)       | (1,208,532)     | (164,386)    |
| Purchase of patents and licenses (Note 8)                             |    | (60,543)        | (72,638)        | (209,814)    |
| Advances made prior to acquisition (Note 22)                          |    | -               | (500,000)       | -            |
| Proceeds from the sale of short-term investments                      |    | 589,275         | (598,148)       | -            |
| Cash flows from investing activities                                  |    | (441,065)       | (2,323,332)     | (374,200)    |
| FINANCING ACTIVITIES  |    |                 |                 |              |
| Issue of common shares for cash, net of issue costs (Note 11)         |    | 123,528         | 11,783,144      | 12,076,681   |
| Cash flows from financing activities                                  |    | 123,528         | 11,783,144      | 12,076,681   |
| EFFECT OF EXCHANGE RATE CHANGES ON CASH                               |    | 79,422          | 467,893         | (1,804,435)  |
| NET CHANGE IN CASH  |    | (9,401,804)     | (33,714)        | 3,122,132    |
| CASH, beginning of year   |    | 14,376,282      | 14,409,996      | 11,287,864   |
| CASH, end of year   | \$ | 4,974,478 \$    | 14,376,282 \$   | 14,409,996   |

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

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(Expressed in US Dollars)

#### 1. DESCRIPTION OF BUSINESS AND LIQUIDITY

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 26, 2018.

The Company has working capital of \$7,140,119 as of December 31, 2017 compared to working capital of \$15,509,859 at December 31, 2016 and \$14,045,498 at December 31, 2015. The Company is in a position to cover its liabilities as they come due, however, due to the continuation of losses, the Company will need to seek debt or equity financing to fund its operations. Consistent with its needs for additional financing, on March 21, 2018, the Company completed a 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). Additionally, subsequent to December 31, 2017 the Company raised \$1,131,921 from the exercise of warrants and stock options.

#### 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., BB Photonics Inc., BB Photonics UK Limited (collectively "BB Photonics") and DenseLight Semiconductors Pte. Ltd ("DenseLight"). All intercompany balances and transactions have been eliminated on consolidation.

#### **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.

(Expressed in US Dollars)

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

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.

#### **Financial Instruments**

Financial instruments are required to be classified as one of the following: held-to-maturity; loans and receivables, fair value through profit or loss; available-for-sale or other financial liabilities.

The Company's financial instruments include cash, short-term investments, accounts receivable, accounts payable and accrued liabilities. The Company designated its cash and short-term investments as fair value through profit or loss and its accounts payable and accrued liabilities as other financial liabilities.

Fair value through profit or loss financial assets are measured at fair value with gains and losses recognized in operations. Financial assets, loans and receivables and other financial liabilities are measured at amortized cost. Available-for-sale financial assets are measured at fair value with unrealized gains and losses recognized in other comprehensive loss.

(Expressed in US Dollars)

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

Fair value of a financial instrument is the amount of consideration that would be agreed upon in an arm's length transaction between knowledgeable, willing parties who are under no compulsion to act. The fair value of a financial instrument on initial recognition is the transaction price, which is the fair value of the consideration given or received. Subsequent to initial recognition, the fair value of a financial instrument that is quoted in active markets is based on the bid price for a financial asset held and the offer price for a financial liability. When an independent price is not available, fair value is determined by using a valuation methodology that refers to observable market data. Such a valuation technique includes comparisons with a similar financial instrument where an observable market price exists, discounted cash flow analysis, option pricing models and other valuation techniques commonly used by market participants. If no reliable estimate can be made, the Company measures the financial instrument at cost less impairment as a last resort.

#### 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.

The provision policy for doubtful accounts of the Company is based on the ageing analysis and management's ongoing evaluation of the recoverability of the outstanding receivables. A considerable amount of judgement is required in assessing the ultimate realization of these receivables, including the assessment of the creditworthiness and the past collection history of each customer. If the financial conditions of these customers were to deteriorate, resulting in an impairment of their ability to make payments, additional allowances may be required. As at the balance sheet dates, no provision was required for accounts receivable.

#### 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.

#### 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.

2.

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

SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

#### 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 nil for the year ended December 31, 2017 (2016 - \$63,522, 2015 - nil).

#### 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.

#### 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. Valuation allowances are provided to reduce deferred income tax assets to the amount expected to be realized.

### 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. The Company does not expect that this change will have an impact on the Company as it has not earned taxable income in the past and it has significant NOL carryforwards.

(Expressed in US Dollars)

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

#### Revenue recognition

#### Sale of goods

Revenue from the sale of goods is recognized when significant risks and rewards of ownership are transferred to the buyer, there is persuasive evidence of an arrangement, collection is probable and fees are fixed and determinable.

#### Service revenue

Revenue from services that are one year or less is recognized when the services are completed. Revenue from services of a long-term nature is recognized by reference to the stage of completion of the transaction at the end of the reporting period determined by services performed to date as a percentage of total services and the amount of revenue, stage of completion, and the costs incurred for the transaction and the costs to complete the transaction can be measured reliably.

#### Interest income

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

#### Other income

#### **Government Grants**

Grants received exclusively from governmental agencies such as the Department of Defense of the United States of America, NASA and Productivity and Innovation Credit Scheme Singapore ("PIC Grant"), relating to research and development or expenditure on technology, are recognized as other income

Government grants from the United States are based on the agreed upon milestones of the projects. PIC Grants are offered as a percentage of qualifying expenditures. PIC Grants are paid out in cash. Other income earned on government grants in 2017 was nil (2016 - \$14,027 and 2015 - nil).

#### **Research and Development Credits**

The Company is 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 the three year period. The Company has accrued or collected \$1,695,383 relating to these research and development credits in 2017 (2016 - nil, 2015 - nil) which represents actual expenses incurred in 2017.

### 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.

(Expressed in US Dollars)

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

#### **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.

#### **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.

# 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.

#### Short-term investments

The short-term investments of nil at December 31, 2017 and \$589,275 at December 31, 2016 and nil at December 31, 2015 consisted of guaranteed investment certificates ("GICs") held with one Canadian chartered bank and earn interest at a rate of 0.50%.

#### 3. RECENT ACCOUNTING PRONOUNCEMENTS

The following is a summary of recent accounting pronouncements that may affect the Company:

IFRS 15, Revenue from Contracts with Customers ("IFRS 15"). The IASB issued IFRS 15, which is effective for annual periods beginning on or after January 1, 2018. The standard contains a single model that applies to contracts with customers and two approaches to recognizing revenue: at a point in time and over time. The model features a contract-based five-step analysis of transactions to determine whether, how much and when revenue is recognized. New estimates and judgmental thresholds have been introduced, which may affect the amount and/or timing of revenue recognized. Based on current assessment, the Company does not expect that this new standard will impact how the Company currently recognizes revenue.

(Expressed in US Dollars)

# 3. RECENT ACCOUNTING PRONOUNCEMENTS (Continued)

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 will replace 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 is in the process of assessing the impact of this standard on its consolidated financial statements.

#### 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:

|               |                      | 2017             | 2015    |      |
|---------------|----------------------|------------------|---------|------|
|               |                      |                  |         |      |
| Product sales | United States dollar | \$<br>493,925 \$ | 292,849 | \$ - |

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.

# 5. PREPAIDS AND OTHER CURRENT ASSETS

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

|  | 2017            | 2016          | 2015          |
|--|-----------------|---------------|---------------|
|  |                 |               |               |
| Sales tax recoverable and other current assets | \$<br>119,482   | \$<br>147,119 | \$<br>52,401  |
| Research and development credit                | 1,287,539       | -             | -             |
| Security deposits on leased properties         | 228,170         | 272,026       | -             |
| Prepaid expenses                               | 322,536         | 339,772       | 98,522        |
|  | \$<br>1,957,727 | \$<br>758,917 | \$<br>150,923 |

# 6. INVENTORY

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

|                 | 2017             | 2016      | 2015 |
|-----------------|------------------|-----------|------|
| Raw materials   | \$<br>112,768 \$ | 662,458   | \$ - |
| Finished goods  | 260,105          | 358,386   | -    |
| Work in process | 151,709          | 96,036    | -    |
|                 | \$<br>524,582 \$ | 1,116,880 | \$ - |

The Company recorded an inventory write-down of \$353,476 in 2017. Raw materials related to products under development represented the most significant portion of the write-down. Although, a value is no longer attributed to these materials, the Company continues to utilize them in its R&D activities.

#### 7. PROPERTY AND EQUIPMENT

| _   |    | quipment not eady for use |    | Leasehold improvements | 1  | Machinery and equipment |    | Office equipment | Total      |
|---|----|---------------------------|----|------------------------|----|-------------------------|----|------------------|------------|
|   |    |                           |    |                        |    |                         |    |                  |            |
| Cost  |    |                           |    |                        |    |                         |    |                  |            |
| Balance, January 1, 2015                    | \$ | 3,152                     | \$ | -                      | \$ | 1,273,922               | \$ | 56,406 \$        | 1,333,480  |
| Additions                                   |    | 7,024                     |    | 5,896                  |    | 126,181                 |    | 25,285           | 164,386    |
| Reallocations                               |    | (10,176)                  |    | 10,176                 |    | -                       |    | -                | -          |
| Balance, December 31, 2015                  |    | -                         |    | 16,072                 |    | 1,400,103               |    | 81,691           | 1,497,866  |
| Additions (1) (Note 21)                     |    | 602,830                   |    | 667,342                |    | 8,498,051               |    | 244,860          | 10,013,083 |
| Disposals (Note 21)                         |    | _                         |    | (16,072)               |    | (64,747)                |    | (11,734)         | (92,553)   |
| Reallocations                               |    | -                         |    | -                      |    | (98,522)                |    | -                | (98,522)   |
| Balance, December 31, 2016                  |    | 602,830                   |    | 667,342                |    | 9,734,885               |    | 314,817          | 11,319,874 |
| Additions                                   |    | 806,182                   |    | 007,342                |    | 113,433                 |    | 50,182           | 969,797    |
| Reclassification                            |    | (874,371)                 |    | _                      |    | 874,371                 |    | 50,102           | -          |
| Effect of changes in foreign exchange rates |    | 46,433                    |    | _                      |    | 72,779                  |    | 8,914            | 128,126    |
| Entert of changes in foreign change takes   |    | 10,122                    |    |                        |    | 7=,772                  |    | 0,511            | 120,120    |
| Balance, December 31, 2017                  |    | 581,074                   |    | 667,342                |    | 10,795,468              |    | 373,913          | 12,417,797 |
| Accumulated Depreciation                    |    |                           |    |                        |    |                         |    |                  |            |
| Balance, January 1, 2015                    |    | -                         |    | _                      |    | 265,008                 |    | 9,612            | 274,620    |
| Depreciation for the year                   |    | -                         |    | 3,104                  |    | 258,190                 |    | 14,845           | 274,620    |
| Depreciation for the year                   |    | -                         |    | 3,104                  |    | 230,190                 |    | 14,043           | 270,139    |
| Balance, December 31, 2015                  |    | -                         |    | 3,104                  |    | 523,198                 |    | 24,457           | 550,759    |
| Depreciation for the year                   |    | -                         |    | 83,189                 |    | 1,320,050               |    | 45,286           | 1,448,525  |
| Disposals                                   |    | -                         |    | (3,104)                |    | (34,940)                |    | (5,576)          | (43,620)   |
| Balance, December 31, 2016                  |    |                           |    | 83,189                 |    | 1,808,308               |    | 64,167           | 1,955,664  |
| Depreciation for the year                   |    | -                         |    | 133,499                |    | 1,857,474               |    | 192,990          | 2,183,963  |
| Depreciation for the year                   |    | -                         |    | 133,499                |    | 1,037,474               |    | 192,990          | 2,165,905  |
| Balance, December 31, 2017                  |    | -                         |    | 216,688                |    | 3,665,782               |    | 257,157          | 4,139,627  |
| Constant Associate                          |    |                           |    |                        |    |                         |    |                  |            |
| Carrying Amounts At December 31, 2015       | \$ |                           | ø  | 12,968                 | ¢. | 976 005                 | ø  | 57.224 ¢         | 047 107    |
| At December 51, 2013                        | Þ  | -                         | \$ | 12,908                 | \$ | 876,905                 | \$ | 57,234 \$        | 947,107    |
| At December 31, 2015                        | \$ | 602,830                   | \$ | 584,153                | \$ | 7,926,577               | \$ | 250,650 \$       | 9,364,210  |
| L. D  |    |                           | Ф  | 450.651                | ф  | # 100 cos               | Ф  | 116.756          |            |
| At December 31, 2017                        | \$ | 581,074                   | \$ | 450,654                | \$ | 7,129,686               | \$ | 116,756 \$       | 8,278,170  |

<sup>(1)</sup> During 2016, the Company (a) reduced its operations in Toronto and disposed of \$27,806 of its property and equipment for proceeds of \$2,195 and recorded a loss on the disposal of property and equipment of \$16,931. The Company disposed of an additional \$64,747 of machinery and equipment at a loss of \$29,807 (b) added \$217,722 of new equipment, however, only \$119,200 was purchased during the year, \$98,522 was purchased in 2015 but was classified as a prepaid deposit as it was not placed in use at December 31, 2015 (c) through the acquisition of DenseLight and BB Photonics, the Company acquired \$8,706,029 of leaseholds improvements, machinery and office equipment (d) purchased an additional \$1,089,332 of machinery and office equipment at DenseLight, \$602,830 of which has not yet been placed into service.

<sup>(2) \$35,000</sup> was reclassified to non-current assets held for sale and was sold in July 2016, while \$63,522 was recorded as an impairment loss on the consolidated statements of operations and deficit.

#### 8. PATENTS AND LICENSES

| Cost   |    |         |
|--|----|---------|
| Balance, January 1, 2015   | \$ | 327,435 |
| Additions  |    | 209,814 |
|  |    |         |
| Balance, December 31, 2015   |    | 537,249 |
| Additions  |    | 72,638  |
|  |    |         |
| Balance, December 31, 2016   |    | 609,887 |
| Additions  |    | 60,543  |
|  |    |         |
| Balance, December 31, 2017   |    | 670,430 |
|  |    |         |
| Accumulated Amortization   |    |         |
| Balance, January 1, 2015   |    | 66,714  |
| Amortization   |    | 43,722  |
| D. L. O. 2015  |    | 110.426 |
| Balance, December 31, 2015 Amortization  |    | 110,436 |
| Amoruzauon   |    | 49,775  |
| Balance, December 31, 2016   |    | 160,211 |
| Amortization   |    | 53,969  |
| The control of the co |    | 33,707  |
| Balance, December 31, 2017   |    | 214,180 |
|  |    | ,       |
| Carrying Amounts   |    |         |
| At December 31, 2015   | \$ | 426,813 |
|  |    |         |
| At December 31, 2016   | \$ | 449,676 |
|  | •  |         |
| At December 31, 2017   | \$ | 456,250 |
|  |    |         |

#### 9. INTANGIBLE ASSETS

|  | 7  | Customer Technology Relationships |    |               |    | Total   |
|--|----|-----------------------------------|----|---------------|----|---------|
|  |    | recillology                       |    | cerationships |    | Total   |
| Cost   |    |                                   |    |               |    |         |
| Balance, January 1, 2015 and 2016                | \$ | -                                 | \$ | -             | \$ | -       |
| Acquired through the acquisition of DenseLight   |    | -                                 |    | 186,131       |    | 186,131 |
| Acquired through the acquisition of BB Photonics |    | 714,000                           |    | -             |    | 714,000 |
|  |    |                                   |    |               |    |         |
| Balance, December 31, 2016 and 2017              |    | 714,000                           |    | 186,131       |    | 900,131 |
|  |    |                                   |    |               |    |         |
| Accumulated Amortization                         |    |                                   |    |               |    |         |
| Balance, January 1, 2015 and 2016                |    | -                                 |    | -             |    | -       |
| Amortization for the year                        |    | -                                 |    | 23,266        |    | 23,266  |
|  |    |                                   |    |               |    |         |
| Balance, December 31, 2016                       |    | -                                 |    | 23,266        |    | 23,266  |
| Amortization for the year                        |    | -                                 |    | 37,228        |    | 37,228  |
|  |    |                                   |    |               |    |         |
| Balance, December 31, 2017                       |    | -                                 |    | 60,494        |    | 60,494  |
|  |    |                                   |    |               |    |         |
| Carrying Amounts                                 |    |                                   |    |               |    |         |
| At December 31, 2015                             | \$ | -                                 | \$ | -             | \$ |         |
|  |    |                                   |    |               |    |         |
| At December 31, 2016                             | \$ | 714,000                           | \$ | 162,865       | \$ | 876,865 |
|  |    |                                   |    |               |    |         |
| At December 31, 2017                             | \$ | 714,000                           | \$ | 125,637       | \$ | 839,637 |

# 10. ACCOUNTS PAYABLE AND ACCRUED LIABILITIES

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

|                                 | 2017          |    | 2016      |    | 2015    |
|---------------------------------|---------------|----|-----------|----|---------|
|                                 |               |    |           |    |         |
| Trade payable                   | \$<br>504,229 | \$ | 768,066   | \$ | 337,564 |
| Payroll related liabilities (1) | 112,913       |    | 628,378   |    | 104,788 |
| Accrued liabilities             | 193,451       |    | 183,037   |    | 73,069  |
| Lease commitment                | -             |    | 44,863    |    | -       |
|                                 | \$<br>810,593 | \$ | 1,624,344 | \$ | 515,421 |

<sup>(1)</sup> Payroll related liabilities at December 31, 2016 includes \$450,000 of bonus payable to the CEO along with \$87,751 of past salaries due to some current and former employees of DenseLight.

#### 11. SHARE CAPITAL

# (a) AUTHORIZED Unlimited number of common shares One special voting share

#### (b) COMMON SHARES ISSUED

|   | Number of    |                    |
|---|--------------|--------------------|
|   | Shares       | Amount             |
|   | 4.66.550.004 | 64 600 0 <b>50</b> |
| Balance, January 1, 2015  | 166,578,084  | \$<br>61,688,953   |
| Shares issued on the exercise of stock options                      | 8,106,300    | 2,703,436          |
| Fair value of stock options exercised                               | -            | 2,816,625          |
| Shares issued on the exercise of warrants and compensation warrants | 22,413,431   | 9,373,245          |
| Fair value of warrants and compensation warrants exercised          | -            | 4,444,912          |
|   |              |                    |
| Balance, December 31, 2015  | 197,097,815  | 81,027,171         |
| Shares issued on public offering                                    | 34,800,000   | 9,349,254          |
| Cost of shares issued on public offering                            | -            | (1,165,017)        |
| Fair value of warrants issued                                       | -            | (5,985,378)        |
| Shares issued to settle subsidiary accounts payable                 | 2,386,386    | 1,843,629          |
| Shares issued on business combination                               | 15,607,240   | 12,050,000         |
| Shares issued on the exercise of stock options                      | 5,648,000    | 1,654,988          |
| Fair value of stock options exercised                               | =            | 1,737,879          |
| Shares issued on the exercise of warrants and compensation warrants | 3,794,412    | 1,943,919          |
| Fair value of warrants exercised                                    | =            | 901,417            |
|   |              |                    |
| Balance, December 31, 2016  | 259,333,853  | 103,357,862        |
| Shares issued on the exercise of stock options                      | 685,000      | 123,528            |
| Fair value of stock options exercised                               | -            | 134,831            |
|   |              |                    |
| Balance, December 31, 2017  | 260,018,853  | \$<br>103,616,221  |

On November 2, 2016 the Company completed a Short Form Base Shelf and Supplemental Prospectus offering of 34,800,000 units at a price of \$0.269 (CAD\$0.36) per unit for gross proceeds of \$9,349,254 (CAD\$12,528,000). Each unit consists of one common share and one common share purchase warrant. Each whole warrant entitles the holder to purchase one additional common share of the Company at a price of \$0.388 (CAD\$0.52) per share for a period of five years. The agents received cash commissions in the aggregate of \$654,447 (CAD\$876,960). Additional issue costs approximated \$510,570 (CAD\$666,618).

The fair value of the warrants was estimated using the Black-Scholes option pricing model with the following assumptions: dividend yield of 0%, interest rate of 0.68%, volatility of 91.37% and estimated life of 5 years. The estimated fair value assigned to the warrants was \$5,985,378 (\$8,015,323 CAD).

# 12. WARRANTS

The following table reflects the continuity of warrants:

|  | Average Exercise<br>Price |        | Number of Warrants |    | Historical<br>Fair value |
|--|---------------------------|--------|--------------------|----|--------------------------|
|  |                           |        |                    |    |                          |
| Balance, January 1, 2015                     | \$                        | 0.61   | 30,782,664         | \$ | 6,458,659                |
| Warrants and compensation warrants exercised |                           | (0.42) | (22,413,431)       |    | (4,444,912)              |
|  |                           |        |                    |    |                          |
| Balance, December 31, 2015                   |                           | 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, 2016 and 2017          | \$                        | 0.39   | 34,800,000         | \$ | 5,985,378                |

# 13. STOCK OPTIONS AND CONTRIBUTED SURPLUS

# **Stock Options**

On July 7, 2016, shareholders of the Company approved amendments to the Company's fixed 20% stock option plan (as amended, referred to as the "2016 Plan"). Under the 2016 Plan, the board of directors may grant options to acquire common shares of the Company to qualified directors, officers, employees and consultants. The 2016 Plan provides that the number of common shares issuable pursuant to options granted under the 2016 Plan and pursuant to other previously granted options is limited to 44,352,885 (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 2016 Plan which grants discretion to the Board of Directors.

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

|                            | Number of<br>Options | Weighted average<br>Exercise<br>Price |
|----------------------------|----------------------|---------------------------------------|
|                            |                      |                                       |
| Balance, January 1, 2015   | 24,237,800           | \$ 0.61                               |
| Expired/cancelled          | (1,068,000)          | 1.13                                  |
| Exercised                  | (8,106,300)          | 0.43                                  |
| Granted                    | 11,655,000           | 1.19                                  |
|                            |                      |                                       |
| Balance, December 31, 2015 | 26,718,500           | 0.89                                  |
| Expired/cancelled          | (1,290,000)          | 0.96                                  |
| Exercised                  | (5,648,000)          | 0.37                                  |
| Granted                    | 4,025,000            | 0.62                                  |
|                            |                      |                                       |
| Balance, December 31, 2016 | 23,805,500           | 0.96                                  |
| Expired/cancelled          | (5,455,209)          | 0.73                                  |
| Exercised                  | (685,000)            | 0.19                                  |
| Granted                    | 15,425,000           | 0.24                                  |
| D. 1 . 21 . 2017           | 22 222 221           | Φ 0.60                                |
| Balance, December 31, 2017 | 33,090,291           | \$ 0.68                               |

During the year ended December 31, 2017, the Company granted 15,425,000 (2016 - 4,025,000, 2015 - 11,655,000) stock options to officers, employees and consultants of the Company to purchase common shares at an average price of \$0.24 (2016 - \$0.62, 2015 - \$1.19) per share.

# (Expressed in US Dollars)

# 13. STOCK OPTIONS AND CONTRIBUTED SURPLUS (Continued)

During the year ended December 31, 2017, the Company recorded stock-based compensation of \$3,174,924 (2016 - \$4,070,264, 2015 - \$4,818,120) relating to stock options that vested during the year.

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

|  |    | 2017    | 2016    | 2015   |
|--|----|---------|---------|--------|
| Weighted average exercise price          | S  | 0.24 \$ | 0.62 \$ | 1.19   |
| Weighted average risk-free interest rate | ų. | 1.87%   | 1.05%   | 0.98%  |
| Weighted average dividend yield          |    | 0%      | 0%      | 0%     |
| Weighted average volatility              |    | 102.73% | 104.3%  | 102.7% |
| Weighted average estimated life (years)  |    | 10      | 10      | 5      |
| Weighted average share price             | \$ | 0.24 \$ | 0.62 \$ | 1.19   |

Share price on the various grant dates were:

|                  | 2017          | 2016    | 2015 |
|------------------|---------------|---------|------|
|                  |               |         | _    |
| First grant      | \$<br>0.32 \$ | 0.75 \$ | 1.31 |
| Second grant     | 0.27          | 0.74    | 1.59 |
| Third grant      | 0.25          | 0.66    | 1.33 |
| Fourth grant     | 0.28          | 0.71    | 1.14 |
| Fifth grant      | 0.22          | 0.62    | 1.13 |
| Sixth grant      | 0.22          | 0.46    | 1.25 |
| Seventh grant    | 0.23          | =       | 1.19 |
| Eighth grant     | 0.24          | -       | 0.83 |
| Ninth grant      | 0.28          | -       | 0.72 |
| Tenth grant      | 0.29          | -       | 0.63 |
| Eleventh grant   | 0.21          | =       | 0.74 |
| Twelfth grant    | -             | -       | 0.62 |
| Thirteenth grant | -             | -       | 0.65 |
|                  |               |         |      |

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, 2017 are as follows:

| Op              | tions Outstanding |            |              | Opt | ions Exercisable | e  |          |
|-----------------|-------------------|------------|--------------|-----|------------------|----|----------|
|                 |                   |            | Weighted     |     |                  |    |          |
|                 |                   | Weighted   | Average      |     |                  |    | Weighted |
|                 |                   | Average    | Remaining    |     |                  |    | Average  |
| Exercise        | Number            | Exercise   | Contractual  |     | Number           |    | Exercise |
| Range           | Outstanding       | Price      | Life (years) |     | Exercisable      |    | Price    |
|                 |                   |            |              |     |                  |    |          |
| \$0.11 - \$0.25 | 225,000           | \$<br>0.23 | 4.13         |     | 225,000          | \$ | 0.23     |
| \$0.26 - \$0.31 | 10,450,000        | \$<br>0.22 | 9.54         |     | 1,031,250        | \$ | 0.22     |
| \$0.32 - \$0.37 | 1,337,500         | \$<br>0.28 | 9.40         |     | 12,500           | \$ | 0.33     |
| \$0.38 - \$0.86 | 7,851,000         | \$<br>0.43 | 7.60         |     | 2,135,375        | \$ | 0.52     |
| \$0.87 - \$1.64 | 13,226,791        | \$<br>1.24 | 2.33         |     | 9,872,746        | \$ | 1.28     |
|                 | 33,090,291        | \$<br>0.68 | 6.16         | \$  | 13,276,871       | \$ | 1.06     |

(Expressed in US Dollars)

# 13. STOCK OPTIONS AND CONTRIBUTED SURPLUS (Continued)

#### **Contributed Surplus**

The following table reflects the continuity of contributed surplus:

|                                       | Amount      |
|---------------------------------------|-------------|
|                                       |             |
| Balance, January 1, 2015              | 23,616,664  |
| Stock-based compensation              | 4,818,120   |
| Fair value of stock options exercised | (2,816,625) |
|                                       |             |
| Balance, December 31, 2015            | 25,618,159  |
| Stock-based compensation              | 4,070,264   |
| Fair value of stock options exercised | (1,737,879) |
| Fair value of expired warrants        | 1,112,330   |
|                                       |             |
| Balance, December 31, 2016            | 29,062,874  |
| Stock-based compensation              | 3,174,924   |
| Fair value of stock options exercised | (134,831)   |
|                                       |             |
| Balance, December 31, 2017            | 32,102,967  |

#### 13. LOSS PER SHARE

|  | 2017               | 2016               | 2015               |
|--|--------------------|--------------------|--------------------|
|  |                    |                    | _                  |
| Numerator  |                    |                    |                    |
| Net loss   | \$<br>(12,797,797) | \$<br>(13,224,684) | \$<br>(12,070,170) |
|  |                    |                    |                    |
| Denominator  |                    |                    |                    |
| Weighted average number of common shares outstanding           | 259,771,793        | 220,058,321        | 185,091,882        |
| Weighted average number of common shares outstanding - diluted | 259,771,793        | 220,058,321        | 185,091,882        |
|  |                    |                    |                    |
| Basic and diluted loss per share                               | \$<br>(0.05)       | \$<br>(0.06)       | \$<br>(0.07)       |

The effect of common share purchase options, warrants, compensation warrants and shares to be issued on the net loss in 2017, 2016 and 2015 is not reflected as they are anti-dilutive.

# 15. 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, 2017 and initiated a new lease an February 1, 2017 which expires on January 31, 2020. The lease on the Company's operating facilities expires on February 15, 2019. As at December 31, 2017, the Company's head office was on a month to month lease term.

Rent expense under these leases was \$421,316 for the year ended December 31, 2017 (2016 - \$312,842 2015 - \$204,987).

Remaining minimum annual rental payments to the lease expiration date is as follows:

| 2018                         | \$<br>411,349 |
|------------------------------|---------------|
| January 1, 2019 through 2020 | 80,119        |
|                              | \$<br>491,468 |

(Expressed in US Dollars)

#### 16. RELATED PARTY TRANSACTIONS

Compensation to key management personnel were as follows:

|                          | 2017            | 2016            | 2015            |
|--------------------------|-----------------|-----------------|-----------------|
|                          |                 |                 |                 |
| Salaries                 | \$<br>932,133   | \$<br>2,047,634 | \$<br>1,979,601 |
| Share-based payments (1) | 2,110,773       | 3,061,686       | 3,283,361       |
|                          |                 |                 |                 |
| Total                    | \$<br>3,042,906 | \$<br>5,109,320 | \$<br>5,262,962 |

(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.

In 2016, the Company paid or accrued \$150,000 in consulting fees to a director for strategic, technology, integration and general business consulting services.

The Company paid or accrued \$115,660 in fees for the year ended December 31, 2017 (2016 - \$113,250, 2015 - \$104,790) to a law firm, of which a director is counsel, for legal services rendered to the Company.

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.

#### 17. 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:

#### **ODIS**

Odis is the developer 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.

### DenseLight

DenseLight designs, manufactures, and delivers photonic optical light source products and packaging solutions to the communications, medical, instrumentation, industrial, and security industries. DenseLight processes III-V based optoelectronic devices and photonic integrated circuits through its inhouse wafer fabrication and assembly & test facilities.

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

| 2017                           |    |            |    |              |    |                     |    |            |                |  |
|--------------------------------|----|------------|----|--------------|----|---------------------|----|------------|----------------|--|
| As of December 31,             |    | Singapore  |    | Singapore US |    | Singapore US Canada |    | Canada     | nada Consolida |  |
| 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 |                |  |

(Expressed in US Dollars)

# 17. SEGMENT INFORMATION (Continued)

| رم   | ingapore                                |  | US   |           | Canada     |           | Consolidated |
|------|---|--|--|-----------|------------|-----------|--------------|
| \$   | 2,794,044                               | \$   | -  | \$        | -          | \$        | 2,794,044    |
|      | 1,342,691                               |  | -  |           | -          |           | 1,342,691    |
|      | 4,955,497                               |  | 4,872,902  |           | 1,042,342  |           | 10,870,741   |
|      | 3,237,713                               |  | 1,877,966  |           | 327,194    |           | 5,442,873    |
|      | (1,748,244)                             |  | -  |           | (18,280)   |           | (1,766,524)  |
| \$   | 4,993,613                               | \$   | 6,750,868  | \$        | 1,351,256  | \$        | 13,095,737   |
| 2016 |   |  |  |           |            |           |              |
|      | Singapore                               |  | US   |           | Canada     |           | Consolidated |
| \$   | 2,118,561                               | \$   | 10,058,018   | \$        | 4,957,624  | \$        | 17,134,203   |
|      | 9,039,069                               |  | 322,633  |           | 2,508      |           | 9,364,210    |
|      | -                                       |  | 449,676  |           |            |           | 449,676      |
|      | 6,793,409                               |  | 1,764,459  |           | -          |           | 8,557,868    |
| \$   | 17,951,039                              | \$   | 12,594,786   | \$        | 4,960,132  | \$        | 35,505,957   |
|      |   |  |  |           |            |           |              |
|      | Singapore                               |  | US   |           | Canada     |           | Consolidated |
| \$   | 1,861,747                               | \$   | -  | \$        | -          | \$        | 1,861,747    |
|      | 1,379,838                               |  | -  |           | -          |           | 1,379,838    |
|      | 2,908,465                               |  | 7,200,243  |           | 1,151,868  |           | 11,260,576   |
|      | 770,033                                 |  | 2,122,983  |           | -          |           | 2,893,016    |
|      | =                                       |  | 63,522   |           | -          |           | 63,522       |
|      | -                                       |  | 29,807   |           | 16,931     |           | 46,738       |
|      | (14,027)                                |  | =  |           | (52,845)   |           | (66,872)     |
| \$   | 3,182,562                               | \$   | 9,416,555  | \$        | 1,115,954  | \$        | 13,715,071   |
| 2015 |   |  |  |           |            |           |              |
|      | Singapore                               |  |  |           |            |           | Consolidated |
| \$   | -                                       | \$   | 3,055,947  | \$        | 11,504,972 | \$        | 14,560,919   |
|      | -                                       |  | 924,443  |           | 22,664     |           | 947,107      |
|      | -                                       |  | 426,813  |           | -          |           | 426,813      |
| \$   | -                                       | \$   | 4,407,203  | \$        | 11,527,636 | \$        | 15,934,839   |
|      |   |  |  |           |            |           |              |
|      | Singapore                               |  | US   |           | Canada     |           | Consolidated |
| \$   | -                                       | \$   | 6,622,514  | \$        | 1,991,595  | \$        | 8,614,109    |
|      | -                                       |  | 3,532,492  |           | -          |           | 3,532,492    |
|      | -                                       |  | -  |           | (76,431)   |           | (76,431)     |
| \$   | -                                       | \$   | 10,155,006   | \$        | 1,915,164  | \$        | 12,070,170   |
|      | \$ 2016<br>\$ \$ \$ \$ 2015<br>\$ \$ \$ | 1,342,691 4,955,497 3,237,713 (1,748,244) \$ 4,993,613  2016  Singapore \$ 2,118,561 9,039,069 6,793,409 \$ 17,951,039  Singapore \$ 1,861,747 1,379,838 2,908,465 770,033 | 1,342,691 4,955,497 3,237,713 (1,748,244) \$ 4,993,613 \$  2016  Singapore \$ 2,118,561 \$ 9,039,069 | 1,342,691 | 1,342,691  | 1,342,691 | 1,342,691    |

# 18. FINANCIAL INSTRUMENTS AND RISK MANAGEMENT

The Company's financial instruments consist of cash, short-term investments, accounts receivable, 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:

|  | 2017            | 2016             | 2015             |
|--|-----------------|------------------|------------------|
| Fair value through profit or loss, measured at fair value: |                 |                  |                  |
| Cash   | \$<br>4,974,478 | \$<br>14,376,282 | \$<br>14,409,996 |
| Short-term investments                                     | -               | 589,275          | -                |
| Loans and receivable, measured at amortized cost:          |                 |                  |                  |
| Accounts receivable  | 493,925         | 292,849          | -                |
| Other liabilities, measured at amortized cost:             |                 |                  |                  |
| Accounts payable and accrued liabilities                   | (810,593)       | (1,624,344)      | (515,421)        |

Financial instruments recorded at fair value on the balance sheet are classified using a fair value hierarchy that reflects the significance of the inputs used in making the measurements. The fair value hierarchy has the following levels:

Level 1 - valuation based on quoted prices (unadjusted) observed in active markets for identical assets or liabilities.

Level 2 - valuation techniques based on inputs other than quoted prices included in Level 1 that are observable for the asset or liability either directly or indirectly.

Level 3 - valuation techniques based on inputs for the asset or liability that are not based on observable market data.

Cash was determined using level 1 inputs. Short-term investments were determined using level 2 inputs.

#### 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. No provision has been made for potentially uncollectable amounts.

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

|              | 2017          | 2016          | 2015    |
|--------------|---------------|---------------|---------|
| Current      | \$<br>330,731 | \$<br>125,610 | \$<br>- |
| 31 - 60 days | 56,094        | 16,346        | -       |
| 61 - 90 days | -             | 75,816        | -       |
| > 90 days    | 107,100       | 75,077        | -       |
|              | \$<br>493,925 | \$<br>292,849 | \$<br>- |

# NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(Expressed in US Dollars)

# 18. FINANCIAL INSTRUMENTS AND RISK MANAGEMENT (Continued)

#### **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 \$260,175.

# 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.

#### 19. 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, 2017 were:

 Cash
 \$ 4,974,478

 Shareholders' equity
 \$ 141,704,566

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.

# 20. EXPENSES

Research and development costs can be analysed as follows:

|   | 2017            | 2016            | 2015            |
|---|-----------------|-----------------|-----------------|
| Wages and benefits <sup>(1)</sup>   | \$<br>2,839,088 | \$<br>1,572,567 | \$<br>1,241,054 |
| Subcontract fees  | 1,044,936       | 1,013,539       | 1,560,819       |
| Stock-based compensation  | 369,007         | 373,196         | 552,416         |
| Supplies  | 1,189,842       | 206,523         | 178,203         |
|   | \$<br>5,442,873 | \$<br>3,165,825 | \$<br>3,532,492 |
| Selling, marketing and administration costs can be analysed as follows:  Stock-based compensation | \$<br>2,805,917 | \$<br>3,697,068 | \$<br>4,265,704 |
| Wages and benefits <sup>(1)</sup>   | 2,574,978       | 2,800,878       | 1,306,051       |
| Depreciation and amortization   | 2,275,160       | 1,521,566       | 319,863         |
| General expenses <sup>(1)</sup>   | 1,038,857       | 1,292,341       | 1,012,340       |
| Professional fees   | 624,941         | 715,716         | 812,115         |
| Management and consulting fees  | 229,577         | 611,861         | 665,771         |
| Rent and facility costs <sup>(1)</sup>  | 1,321,311       | 782,174         | 232,265         |

<sup>(1)</sup> Certain prior period figures have been reclassified to conform with the current period's presentation.

# 21. NON CURRENT ASSET HELD FOR SALE

During the year ended December 31, 2016, the Company reclassified \$98,522 from prepaids and other current assets to property and equipment. During the year management determined that the equipment would not be used to generate future cash flows and committed to a plan to dispose of the equipment by December 31, 2016.

10,870,741

11,421,604

Management used a market approach to determine the equipment's fair value less cost of 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 \$35,000 which is greater than its value in use. The Company recorded an impairment loss of \$63,522 on the equipment and reclassified \$35,000 from property and equipment to non current assets held for sale. The equipment was sold for \$35,000 in July 2016.

8,614,109

#### 22. BUSINESS ACQUISITIONS

#### DenseLight

On May 11, 2016, the Company acquired all the issued and outstanding shares of DenseLight, a designer, manufacturer and distributor of photonic sensing and optical light source products for consideration of \$10,500,000. The all stock purchase was accomplished with the issuance of 13,611,150 common share of the Company at a price of \$0.7714 per share. The Company also committed to issuing shares representing \$1,000,000 to the sellers in the event that DenseLight meets or exceeds a pre-determined revenue target during calendar 2016.

This acquisition provides the Company with direct and preferred access to a fab infrastructure for future product development, access to product sales and channel distribution networks and a broader product portfolio of photonic products, technology and know-how.

Upon closing the acquisition, the Company negotiated a settlement agreement relating to obligations that were due to past or current employees of DenseLight. As part of the settlement agreement, the Company issued 1,738,236 common shares at a price of \$0.7714 per share for a total of \$1,343,629. The Company also paid \$240,266 to current and past employees as part of the debt settlement. Accounts payable and accrued liabilities included \$184,570 that was due to past and current employees have been settled.

The Company also settled a loan of \$500,000 owing to EDB Investments Pte. Ltd., an investor in DenseLight, with the issuance of 648,150 shares at a price of 0.771 per share.

Former management shareholders of DenseLight agreed not to sell, transfer, pledge or otherwise dispose of 50% of their shares of the Company for periods up to twelve months, which have since expired. All management shareholders will be able to sell their remaining 50% after 24 months from closing. Former non-management shareholders of DenseLight are no longer restricted from selling their shares.

On acquisition, DenseLight held accounts receivable and unbilled revenue in the amount of \$198,898 which reflected their fair value. The Company does not expect that there will be any contractual cash flows that may not be realized. The billed receivables at closing have been subsequently collected.

The acquisition has been accounted for using the acquisition method of accounting. Acquisition related costs of \$197,284 were expensed in the year and included in selling, marketing and administrative expenses.

A final assessment of the fair value of identifiable assets and liabilities acquired has been completed. The assessment of the purchase price allocation on the date of purchase has been determined as follows:

(Expressed in US Dollars)

# 22. BUSINESS ACQUISITIONS (Continued)

#### Fair value of consideration paid

| Fair value of 13,611,150 shares issued | \$<br>10,500,000 |
|--|------------------|
| Contingent consideration payable       | 283,130          |
| Total consideration                    | \$<br>10,783,130 |

#### Recognised amounts of identifiable net assets:

| Cash                                      | \$<br>2,971      |
|---|------------------|
| Accounts receivables and unbilled revenue | 198,898          |
| Prepaid and other current assets          | 293,386          |
| Inventory                                 | 319,257          |
| Property and equipment                    | 8,635,650        |
| Customer relationships                    | 186,131          |
| Goodwill                                  | 6,630,544        |
| Trade payables                            | (2,979,546)      |
| Loans and advances                        | (1,000,000)      |
| Deferred tax liability                    | (1,504,161)      |
|   |                  |
| Net assets acquired                       | \$<br>10,783,130 |

Loans and advances include \$500,000 that was advanced to DenseLight by the Company prior to its acquisition. This advance was used by DenseLight to cover the expenses required for the development under the Development Services Agreement between DenseLight and the Company, based on the special pricing negotiated between the parties.

The purchase and sale agreement provides for an additional \$1,000,000 worth of shares to be issued to the sellers should gross revenue from DenseLight exceed certain targets for 2016. The fair value of this contingent consideration payable is determined by estimating the probability of the Company making that future payment and then discounting it to present value using a discount rate of 9% being the estimated cost of debt for the Company. At December 31, 2016, DenseLight did not exceed the established revenue targets for 2016. The Company has therefore adjusted the fair value of contingent consideration to nil through earnings.

From the date of acquisition through December 31, 2016, DenseLight contributed \$1,861,747 to consolidated revenues and \$3,182,562 to consolidated net loss. Had the acquisition occurred on January 1, 2016, the Company estimates that DenseLight's contribution to consolidated revenue would have been \$2,316,169 (unaudited) and would have contributed net loss of \$2,344,976 (unaudited). In determining these amounts, the Company assumed that the preliminary fair value adjustments that arose on the acquisition date would have been the same had the acquisition occurred on January 1, 2016.

A deferred tax liability of \$1,504,161 was created on the date of purchase and related to the fair value adjustment of the assets acquired. The change in the fair value assets acquired arising from amortization or the sale of assets resulted in a deferred tax recovery of \$297,940 in 2017 and \$200,596 in 2016. Deferred tax liability at December 31, 2017 and 2016 was \$1,005,627 and \$1,303,567 respectively.

# **BB** Photonics

On June 22, 2016, the Company acquired all the issued and outstanding shares of 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.

# 22. BUSINESS ACQUISITIONS (Continued)

The acquisition of BB Photonics provides the Company with additional differentiated intellectual property and know-how for product development which will enable the Company to better service its first identified commercialization market, the end-to-end data communications market, and augment its sensing roadmap.

The acquisition has been accounted for using the acquisition method of accounting. Acquisition related costs of \$59,930 were expensed in the year and included in selling, marketing and administrative expenses.

A final assessment of the fair value of identifiable assets and liabilities acquired has been completed. The assessment of the purchase price allocation on the date of purchase has been determined as follows:

#### Fair value of consideration paid

| Fair value of 1,996,090 shares issued          | \$<br>1,550,000 |
|--|-----------------|
| Recognised amounts of identifiable net assets: |                 |
| Cash   | \$<br>15,820    |
| Property and equipment                         | 70,379          |
| Intangibles                                    | 714,000         |
| Goodwill                                       | 1,050,459       |
| Trade payables                                 | (7,918)         |
| Deferred tax liability                         | (292,740)       |
| Net assets acquired                            | \$<br>1,550,000 |

From the date of acquisition through December 31, 2016, BB Photonics contributed nil to consolidated revenues and \$181,782 to consolidated net loss. Had the acquisition occurred on January 1, 2016, the Company estimates that BB Photonics' contribution to consolidated revenue would have been nil (unaudited) and it would have contributed net loss of \$272,793 (unaudited). In determining these amounts, the Company assumed that the preliminary fair value adjustments that arose on the acquisition date would have been the same had the acquisition occurred on January 1, 2016.

A deferred tax liability of \$292,740 was created on the date of purchase and related to the fair value adjustment of the assets acquired. There was no amortization of related intangible assets in 2017 or 2016, therefore there has been no amortization of the deferred tax liability.

# (Expressed in US Dollars)

# 23. INCOME TAXES

The following table reconciles the expected income tax recovery at the Canadian statutory income tax rate of 26.5% for 2017 (2015 - 26.5%, 2015 - 26.5%) to the amounts recognized in operations.

| For the Year Ended December 31,      | 2017             | 2016             | 2015             |
|--------------------------------------|------------------|------------------|------------------|
| Net loss before taxes                | \$<br>13,095,737 | \$<br>13,431,941 | \$<br>12,070,170 |
| Expected current income tax recovery | 3,470,370        | 3,559,000        | 3,198,595        |
| Deferred tax recovery                | 297,940          | 207,257          | -                |
|                                      | 3,768,310        | 3,766,257        | 3,198,595        |
|                                      |                  |                  |                  |

# Changes from:

| Amounts not deductible for tax purposes           | (841   | 000)   | (1,079,000) | (1,276,802) |
|---|--------|--------|-------------|-------------|
| Other non-deductible items                        | (463   | 000)   | -           | (2,700)     |
| Deductible share issuance costs                   | 94     | 000    | 118,000     | 56,000      |
| Fair value consideration                          |        | -      | 116,000     | -           |
| Impact of US statutory income tax rate change (1) | (9,472 | 000)   | -           | -           |
| Foreign tax differential                          | (69    | 000)   | 507,213     | 879,000     |
| Unrecognized tax recovered (losses)               | 7,280  | 630    | (3,221,213) | (2,854,093) |
| Income tax recovery recognized                    | \$ 297 | 940 \$ | 207,257     | \$<br>-     |

(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.

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

|                                     | 2017            | 2016            | 2015            |
|-------------------------------------|-----------------|-----------------|-----------------|
| Resource assets                     | \$<br>1,024,271 | \$<br>1,024,271 | \$<br>1,024,271 |
| Gross unamortized share issue costs | 705,351         | 1,050,599       | 328,119         |
| Canadian non-capital losses         | 11,100,672      | 10,137,652      | 9,451,357       |
| US non-capital losses               | 67,654,438      | 63,725,982      | 58,742,322      |
| Singapore non-capital losses        | 43,671,200      | 37,448,290      | -               |
|                                     | 124,155,932     | 113,386,794     | 69,546,069      |
| Unrecognized deferred tax assets    | (124,155,932)   | (113,386,794)   | (69,546,069)    |
| Future income tax assets recognized | \$<br>-         | \$<br>-         | \$<br>-         |

In accordance with Section 382 of the Internal Revenue Code, the usage of the Company's net operating loss carry forward could be subject to annual limitation if there have been greater than 50% ownership changes.

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

# 24. SUBSEQUENT EVENTS

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 option until March 21, 2020 with each compensation unit comprising one common share and one-half compensation share purchase warrant. Each 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.

Subsequent to December 31, 2017 the Company also raised \$1,131,921 from the exercise of warrants and stock options.