



Performance Through Carbon Chemistry

**INTERIM MANAGEMENT'S DISCUSSION AND ANALYSIS – QUARTERLY HIGHLIGHTS**  
**For the three-month periods ended September 30, 2018 and 2017**

**[Unless specified otherwise, all amounts are expressed in Canadian dollars]**

This interim Management's discussion and analysis ("MD&A") provides a review of NanoXplore Inc.'s operations, performance and financial position for the three-month periods ended September 30, 2018 and 2017 and should be read in conjunction with the unaudited consolidated financial statements for the three-month periods ended September 30, 2018 and 2017 and with the audited consolidated financial statements for the year ended June 30, 2018 and 2017. The purpose of this document is to provide a information on our activities. The information contained herein is dated as of November 19, 2018. You will find more information about us on NanoXplore's website at [www.nanoxplore.ca](http://www.nanoxplore.ca) and on SEDAR at [www.sedar.com](http://www.sedar.com), including all press releases.

The financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS"). The Company has consistently applied the accounting policies used in the preparation of its IFRS financial statements, including the comparative figures. We occasionally refer to non-IFRS financial measures in the MD&A. See the Non-IFRS financial measures section for more information. The terms "we", "our", "us", "NanoXplore" or the "Company" mean NanoXplore Inc. and its subsidiaries, unless otherwise indicated.

### **CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING INFORMATION**

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This MD&A contains certain forward-looking statements with respect to the Company. Such forward-looking statements are dependent upon a certain number of factors and are subject to risks and uncertainties. Actual results may differ from those expected. We consider the assumptions on which these forward-looking statements are based to be reasonable, but we advise the reader that these assumptions with regard to future events, many of which are beyond our control, could prove incorrect as they are subject to risks and uncertainties inherent in our activities. Management does not assume any obligation to update or revise any forward-looking statements, whether as a result of new information of future events, except when required by the regulatory authorities.

This MD&A contains forward-looking statements. When used in this MD&A, the words "may", "would", "could", "will", "intend", "plan", "anticipate", "believe", "seek", "propose", "estimate", "project", "expect" and similar expressions are intended to identify forward-looking statements. In particular, this MD&A contains forward-looking statements with respect to, among other things, business objectives, expected growth, results of operations, performance, business projects and opportunities and financial results. These statements involve known and unknown risks, uncertainties and other factors that may cause actual results or events to differ materially from those anticipated in such forward-looking statements. Such statements reflect NanoXplore's then current views with respect to future events based on certain material facts and assumptions and are subject to certain risks and uncertainties, including without limitation changes in the risk factors described under the section risks and uncertainties of this statement. The forward-looking information is based on certain key expectations and assumptions made by NanoXplore, including expectations and assumptions concerning availability of capital resources, business performance, market conditions, customer demand. Although NanoXplore believes that the expectations and assumptions on which such forward-looking information is based are reasonable, undue reliance should not be placed on the forward-looking information since no assurance can be given that they will prove to be correct.

Many factors could cause NanoXplore's actual results, performance or achievements to vary from those described in this MD&A, including without limitation those listed above, those described under the section risks and uncertainties of this statement as well as the assumptions upon which they are based proving incorrect. These factors should not be construed as exhaustive. Should one or more of these risks or uncertainties materialize, or should assumptions underlying forward-looking statements prove incorrect, actual results may vary materially from those described in this MD&A as intended, planned, anticipated, believed, sought, proposed, estimated or expected, and such forward-looking statements should not be unduly relied upon. NanoXplore does not intend, and does not assume any obligation, to update these forward-looking statements except as required by law. The forward-looking statements contained in this MD&A are expressly qualified by these cautionary statements. Forward-looking information contained in this MD&A about prospective results of operations, financial position or cash flows is based on assumptions about future events, including economic conditions and proposed courses of action, based on NanoXplore's management's assessment of the relevant information currently available. Readers are cautioned that outlook information contained in this MD&A should not be used for the purposes other than for which it is disclosed herein or therein, as the case may be.

## BUSINESS OVERVIEW

### COMPANY OVERVIEW

NanoXplore Inc. and its subsidiaries (together “NanoXplore” or the “Company”) is a graphene company, a manufacturer and supplier of high-volume graphene powder for use in industrial markets as well as standard and custom enhanced thermoplastic products to many customers in transportation, packaging, electronics and other industrial sectors. The address of the Company’s corporate office is 25, Boul. Montpellier, St-Laurent (Montreal), QC, Canada.

NanoXplore Inc. is listed on the TSX Venture Exchange and has traded under “GRA”.

On November 23, 2017, through its wholly-owned subsidiary NanoXplore Switzerland Holding SA incorporated on November 9, 2017, the Company acquired all of the issued and outstanding shares of CEBO Injections SA, based in Switzerland. CEBO provides customers with high precision and high-quality injection molded products, and serves the automotive, medical, industrial and watches manufacturing markets. CEBO has expertise in highly precise parts, over molding, insert molding, and complex and precise parts and assemblies of plastic, metal and ceramic.

On September 21, 2018, through its wholly-owned subsidiary 10854611 Canada Inc., the Company acquired all of the issued and outstanding shares of Sigma Industries Inc (“Sigma”). Sigma is a manufacturing company specializing in the manufacture of composite products that has three operating subsidiaries and employs 275 people. It operates in the markets for heavy trucks, buses, public transit, machinery and wind energy. Sigma sells its products to original equipment manufacturers and distributors in the United States, Canada and Europe

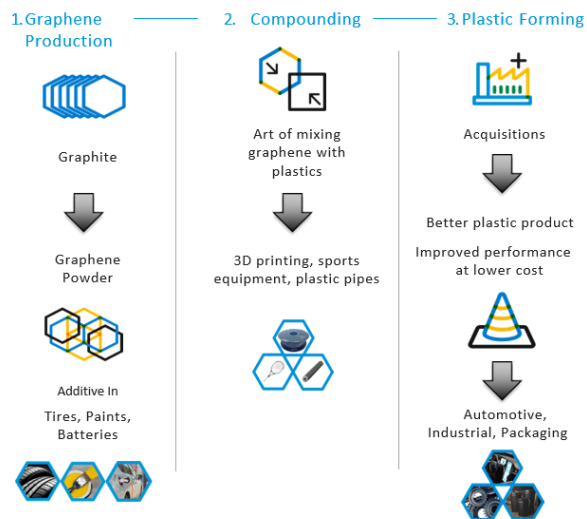
The Company has the following subsidiaries:

- NanoXplore GmbH, based in Germany, with an equity interest of 100%;
- 9334-7474 Québec Inc., based in Canada, with an equity interest of 100%. 9334-7474 Québec Inc. holds 100% of Rada Industries Ltd. (“Rada Industries”).
- NanoXplore Switzerland SA, based in Switzerland, with an equity interest of 100%. NanoXplore Switzerland SA holds 100% of CEBO Injections SA. (“CEBO”).
- 10854611 Canada Inc., based in Canada, with an equity interest of 100%. 10854611 Canada Inc. holds 100% of Sigma. Sigma has three wholly-owned subsidiaries; Rene Composite Materials Ltd., based in Quebec, Faroex Ltd., based in Manitoba, and RMC Advanced Technologies Inc, based in Tennessee (USA).

### KEY BUSINESS STRATEGY

NanoXplore is in the business of developing, manufacturing and marketing graphene and graphene based proprietary polymer nanocomposite materials for a number of industries including automotive, packaging and electronic enclosures.

Following the recent acquisition of CEBO and Sigma, the Company plan a vertical integration of the business, starting from the supply of the graphite to the production of graphene and enhanced plastic master batch pellets to be used in our packaging and automotive applications.



## **Manufacturing**

NanoXplore has plastic production facilities in Quebec, Manitoba and in Vallorbe (Switzerland) with an additional plant under construction in the US and has capacity to produce 25 metric tonnes of graphene per year and a capacity of 400 metric tonnes/year master batch pellet. Our production compounding and mixing capability allow the Company to produce graphene enhanced plastic master batch pellets to be used in packaging and automotive applications.

Concurrent to a financing, NanoXplore plans to build a facility able to produce 10,000 tons of graphene per year. In order to do so, NanoXplore has set forth a feasibility study to define the design and cost parameters of the new plant in collaboration with DF Mining & Handling. The study envisions a modular graphene production plant consisting of 5 graphene production lines, each with a capacity of 2,000 metric ton/year. The report can be found on Sedar on August 27, 2018.

NanoXplore has already signed a lease and an option to expand and purchase agreement for 70,000-square feet building bearing civic address 4500 Thimens Boulevard, in Montréal (Borough of Saint-Laurent), along with two vacant lands, attached to the building. Following the expansion, total building area reaches to more than 134,000 square feet.

## **Research and Development**

NanoXplore has a very active internal research and development effort and supplements this with external collaborations at many Canadian universities and research institutes. NanoXplore is currently investing in research programs with McGill University, University of Waterloo, Institut national de la recherche scientifique (INRS-EMT), École de technologie supérieure (ETS), Centre de Technologie Minérale et de Plasturgie (CTMP), Concordia University and the National Research Council (NRC). The Company has highly qualified staff including 7 with PhD qualifications, 15 with MSc, and 12 with engineering or science degrees. Our researches are mainly related to graphene/composite and to increase strength-to-weight ratio of materials with graphene increases energy efficiency.

NanoXplore have six families of intellectual property covered by issued or pending patents. We own three issued patents in the U.S. and have twelve patent applications pending globally. Graphene is a novel material with a variety of outstanding properties. It is currently available in the market at various grades, with performance characteristics such as mechanical strength, and conductivity improving with fewer atomic layers. NanoXplore's patented manufacturing process provides proof of concept to allow for a low-energy, harsh chemical-free manufacture designed to achieve high-grade graphene material at a projected industry leading low cost.

## **Sustainable Development Technology Canada ("SDTC")**

Since 2018, NanoXplore began a project in collaboration with SDTC, arm's-length foundation created by the Government of Canada. The project will demonstrate that through the strategic application of graphene to engineering plastics, the overall performance of many vehicle components (namely trucks, buses, unmanned aerial vehicles) can be significantly improved in terms of mechanical, thermal and electrical shielding performance, while meaningfully reducing weight. This will be achieved at no cost premium to the customer. The Project's environmental benefits will be achieved through Greenhouse Gas ("GHG") savings related to light weighting of components and of the overall vehicle.

Under the terms and conditions of the agreement, SDTC will reimburse 33% of eligible project cost for a maximum of \$3,250,000 for the period from September 1<sup>st</sup>, 2017 to April 30, 2021.

## FINANCIAL HIGHLIGHTS

The following selected financial data are derived from the Financial Statements of the Company for the following periods:

	Three-month periods ended September 30	
	2018	2017
	\$	\$
Revenues	3,907,726	613,655
Loss for the period	(1,599,181)	(2,363,238)
Basic loss per share	(0.02)	(0.04)

	Three-month periods ended September 30			
	2018	2017	Difference	
	\$	\$	\$	%
<b>Consolidated Statements of Cash Flows</b>				
Operating activities	(963,021)	(750,987)	(212,034)	28%
Investing activities	1,594,156	(161,050)	1,755,206	-1090%
Financing activities	(282,553)	8,718,075	(9,000,628)	-103%
<b>Net change in cash before net effect of currency exchange rate</b>	<b>348,582</b>	<b>7,806,038</b>	<b>(7,457,456)</b>	<b>-96%</b>

	As at September	As at June	As at June
	30, 2018	30, 2018	30, 2017
	\$	\$	\$
<b>Consolidated Statements of Financial Position</b>			
Cash	15,607,595	15,268,666	421,214
Accounts receivable	12,958,056	2,895,012	462,322
Inventory	7,558,820	1,542,863	293,317
Right-of-use assets	1,962,447	—	—
Property, plant and equipment	19,763,548	6,488,020	3,383,184
Intangible asset	979,339	338,260	—
Goodwill	7,489,543	—	—
Total assets	68,066,373	26,886,737	4,736,483
Operating loan	4,936,733	1,328,400	215,000
Long-term Debt	15,662,037	4,567,970	2,162,705
Total liabilities	45,589,391	11,128,750	3,444,842
Equity	22,476,982	15,757,987	1,291,641

Variances are explained in the sections "CONSOLIDATED OPERATIONS" and "FINANCIAL POSITION, LIQUIDITY AND CAPITAL RESOURCES".

### Acquisition of Sigma Industries Inc.

On September 21, 2018, through its wholly-owned subsidiary 10854611 Canada Inc, the Company acquired all of the issued and outstanding shares of Sigma for a total amount of \$8,793,581 paid by the issuance of 4,579,988 common shares of its share capital to all existing shareholders of Sigma and acquired all the outstanding debentures of Sigma Industries for a total amount of \$9,993,500 of which \$9,011,000 is paid by cash and \$982,500 is paid by the issuance of 511,719 shares of its share capital to the Sigma Debentures Holders. The exchange ratio to determine the amount paid is based on a fix price; each Sigma common share will be exchanged for 0.39 common share of NanoXplore. The value of Sigma common shares has been set at \$0.75 and the value of NanoXplore common shares has been set at \$1.92.

Based on the stock price (TSX-V) of NanoXplore shares at the acquisition date of \$1.61, the fair value of the total consideration paid amounted to \$17,208,648 and is detailed as follows:

	Number of shares	Fair value of shares \$	Paid by cash \$	Total consideration \$
All outstanding shares of Sigma	4,579,988	7,373,780	–	7,373,780
All outstanding debentures of Sigma	511,719	823,868	9,011,000	9,834,868
<b>Total</b>	<b>5,091,707</b>	<b>8,197,648</b>	<b>9,011,000</b>	<b>17,208,648</b>

This transaction was financed using the Company's available cash.

The assets and liabilities of Sigma are included in the consolidated statement of financial position as at September 30, 2018 and the operating results are reflected in its consolidated statement of operations since September 21, 2018. The results between the acquisition date and the period ended September 30, 2018 and the results if the combination had taken place at the beginning of fiscal year 2019 are as follows:

	Three-month period results \$	Since acquisition date - consolidated in NanoXplore results \$
<b>Total consideration paid for:</b>		
Revenues	16,812,763	1,709,276
Net income	411,586	61,924

### Selected Quarterly Information

	Revenue	Net loss	Basic and diluted loss per share
Q1-2019 September 30, 2018	3,907,726	(1,599,181)	(0.02)
Q4-2018 June 30, 2018	3,250,531	(1,622,962)	(0.02)
Q3-2018 March 31, 2018	2,985,281	(1,116,798)	(0.01)
Q2-2018 December 31, 2017	1,807,020	(1,020,915)	(0.01)
Q1-2018 September 30, 2017	613,655	(2,363,238)	(0.04) <b>Note 1</b>
Q4-2017 June 30, 2017	813,456	(553,282)	(0.01)
Q3-2017 March 31, 2017	779,298	(655,257)	(0.01)
Q2-2017 December 31, 2016	1,043,000	(371,000)	(0.01)

**Note 1**

The higher loss than usual is explained by the listing expenses of \$1,443,860 incurred in the RTO.

## CONSOLIDATED OPERATIONS

	Three-month periods ended September 30			
	2018	2017	Difference	
	\$	\$	\$	%
<b>Revenues</b>	<b>3,907,726</b>	613,655	3,294,071	84%
<b>Expenses</b>				
Cost of sales	<b>3,376,516</b>	517,742	2,858,774	85%
Research and development costs	<b>468,421</b>	219,225	249,196	53%
Selling, general and administrative	<b>1,171,316</b>	609,052	562,264	48%
Share-based compensation	<b>51,962</b>	81,128	(29,166)	-56%
Depreciation (production)	<b>323,033</b>	58,011	265,022	82%
Depreciation (other)	<b>102,529</b>	23,321	79,208	77%
Amortization	<b>15,854</b>	—	15,854	100%
Foreign exchange	<b>(27,408)</b>	(1,408)	(26,000)	95%
	<b>5,482,223</b>	1,507,071	3,975,152	73%
<b>Operating loss</b>	<b>(1,574,497)</b>	(893,416)	(681,081)	43%
Listing expenses	—	(1,443,860)	1,443,860	100%
Interest on long-term debt	<b>(100,707)</b>	(24,871)	(75,836)	75%
Interest revenue	<b>36,371</b>	—	36,371	100%
Share of loss of a joint venture	—	(1,091)	1,091	100%
<b>Loss before income taxes</b>	<b>(1,638,833)</b>	(2,363,238)	724,405	-44%
Current income taxes recovery	<b>35,021</b>	—	35,021	100%
Deferred income taxes recovery	<b>4,631</b>	—	4,631	100%
	<b>39,652</b>	—	39,652	100%
<b>Loss for the period</b>	<b>(1,599,181)</b>	(2,363,238)	764,057	-48%
<b>Other comprehensive loss</b>				
<i>Items that may be subsequently reclassified to profit and loss:</i>				
Exchange differences on translation of foreign subsidiaries	<b>2,186</b>	—	2,186	100%
<i>Items that will not be reclassified to profit and loss:</i>				
Retirement benefits – Net actuarial gains	<b>60,377</b>	—	60,377	100%
<b>Total comprehensive loss</b>	<b>(1,596,995)</b>	(2,363,238)	766,243	-48%
<b>Loss per share</b>				
Basic and diluted	<b>(0.02)</b>	(0.04)		

## REVENUE

### Sales of products

Sales of products increased during the three-month period (\$3,294,071) ended September 30, 2018 compared to the corresponding period in 2017 mainly due to the consolidation of Sigma and CEBO's sales for a total of \$3,500,000.

## OPERATING COST

General increase of expenses during the three-month period ended September 30, 2018 is mainly due to the consolidation of Sigma expenses since September 21, 2018 and CEBO's expenses since November 23, 2017. The increase of expenses, which are mainly related to cost of sales, are in line with the increase of sales for the period.

### Non-recurring expenses

Listing expenses amounted to \$1,443,860 for the three-month periods ended September 30, 2017. The fees were related to the reverse takeover transactions of Graniz Mondal Inc in August 2017.



## FINANCIAL POSITION, LIQUIDITY AND CAPITAL RESOURCES

### CONSOLIDATED FINANCIAL POSITION

	As at September 30, 2018 \$	As at June 30, 2018 \$	Difference \$	Main reasons for significant differences
<b>Assets</b>				
Cash	15,607,595	15,268,666	338,929	
Accounts receivable	12,958,056	2,895,012	10,063,044	Increase mainly due to Sigma
Inventory	7,558,820	1,542,863	6,015,957	Increase mainly due to Sigma
Deferred income tax assets	835,000	—	835,000	Increase due to Sigma
Right-of-use assets	1,962,447	—	1,962,447	Early adoption of IFRS 16
Property, plant and equipment	19,763,548	6,488,020	13,275,528	Increase due to the equipment acquired with Sigma's acquisition
Intangible asset	979,339	338,260	641,079	Increase due to Sigma
Goodwill	7,489,543	—	7,489,543	Preliminary goodwill arising on Sigma's acquisition
Other assets	912,025	353,916	558,109	Increase mainly due to Sigma
<b>Total assets</b>	<b>68,066,373</b>	<b>26,886,737</b>	<b>41,179,636</b>	
<b>Liabilities and shareholders' equity</b>				
<b>Liabilities</b>				
Accounts payable, accrued liabilities and income taxes payables	20,188,004	2,953,461	17,234,543	Increase mainly due to Sigma's acquisition and to a payable of \$9M to Sigma Debentures Holder
Deferred grant	12,672	164,940	(152,268)	
Deferred revenue	2,946,876	145,012	2,801,864	Increase mainly due to Sigma
Credit facilities	4,936,733	1,328,400	3,608,333	Increase mainly due to Sigma
Non-current portion of payable	491,788	490,180	1,608	Second payment related to the acquisition of Cebo due in 14 months
Defined benefit liabilities	723,048	782,290	(59,242)	Actuarial obligation related to benefit pension plan. <b>Given that the plan is fully insured, no outflow of resources embodying economic benefits is required by the Company to extinguish the actuarial liability recorded on the statement of financial position other than ordinary contributions required by the plan.</b>
Long-term debt	15,662,037	4,567,970	11,094,067	Increase due to new debt of \$9.9M acquired with Sigma's acquisition and to the early adoption of IFRS 16
Deferred income taxes liabilities	628,233	696,497	(68,264)	
<b>Total liabilities</b>	<b>45,589,391</b>	<b>11,128,750</b>	<b>34,460,641</b>	
<b>Equity</b>				
Share capital	31,709,004	23,502,555	8,206,449	Issuance of share related to Sigma acquisition
Reserve	2,920,797	2,871,633	49,164	
Foreign currency translation reserve	15,676	13,490	2,186	
Deficit	(12,168,495)	(10,629,691)	(1,538,804)	Losses of the period
<b>Total equity</b>	<b>22,476,982</b>	<b>15,757,987</b>	<b>6,718,995</b>	
<b>Total equity and liabilities</b>	<b>68,066,373</b>	<b>26,886,737</b>	<b>41,179,636</b>	

## CASH FLOW

	Three-month periods ended September 30			
	2018	2017	Difference	
	\$	\$	\$	%
Cash used in operating prior to changes in working capital	(1,157,347)	(1,083,519)	(73,828)	-7%
Changes in non-cash working capital	194,326	332,532	(138,206)	42%
<b>Operating activities</b>	<b>(963,021)</b>	<b>(750,987)</b>	<b>(212,034)</b>	<b>-28%</b>
<b>Investing activities</b>	<b>1,594,156</b>	<b>(161,050)</b>	<b>1,755,206</b>	<b>1090%</b>
<b>Financing activities</b>	<b>(282,553)</b>	<b>8,718,075</b>	<b>(9,000,628)</b>	<b>-103%</b>
<b>Net effect of currency exchange rate on cash</b>	<b>(9,653)</b>	<b>—</b>	<b>(9,653)</b>	<b>100%</b>
<b>Net change in cash</b>	<b>338,929</b>	<b>7,806,038</b>	<b>(7,467,109)</b>	<b>-96%</b>

### Operating activities

Operating activities cash flows during the three-month period ended September 30, 2018 decrease of \$212,034 compared to the comparable period in 2017, mainly due to a decrease of \$138,206 in changes in non-cash working capital.

### Investing Activities

Cash flows used in investing activities during the three-month period of 2018 is mainly related to the acquisition of Sigma during September 2018 for a net cash amount of \$7,300,496, of which \$9,011,000 was still payable as at September 30, 2018.

### Financing activities

Cash flows generated in financing activities during the three-month period ended in September 2018 is related to repayment of debt whereas in 2017, it was mainly due the completion by the Company of a brokered private placement financing of subscription receipts sold at a price of \$0.45 per subscription receipt for gross proceeds of \$9,697,082.

## LIQUIDITY AND CAPITAL RESOURCES

The graphene business is in the development stage and as result the Company has minimal source of operating revenue from those operations and is dependent on external financing to fund its continued development program. The Company main sources of funding have been the issuance of equity securities for cash, debt, funds from the government of Quebec with respect to R&D tax credit, from the federal government with respect to R&D tax credit, from SDTC and from the Industrial Research Assistance Program.

## FINANCIAL INSTRUMENTS AND RISK MANAGEMENT

For a detailed description of the financial instruments and risk management associated with the Company and its activities, please refer to the annual consolidated financial statements of June 30, 2018. These identified financial instruments and risks are consistent through the periods.

## OFF-BALANCE SHEET ARRANGEMENTS

As of the date of this MD&A, the Company did not have any off-balance sheet arrangements, except for an operating lease signed from November 1, 2018 to October 31, 2028 and commitment to purchase raw materials to certain suppliers.

## OUTSTANDING SHARES

As at November 19, 2018, the Company has:

- 94,582,509 common shares issued and outstanding;
- 1,317,133 options outstanding with expiry dates ranging between January 2, 2020 and April 9, 2023 with exercise price between \$0.45 and \$1.80. If all the options were exercised, 1,317,133 shares would be issued for proceeds of \$1,107,710;
- 13,587,785 warrants and Broker Warrants outstanding with expiry date ranging between August 2, 2019 and March 27, 2020 with exercise price between \$0.45 and \$2.30. If all the warrants were exercised, 13,587,785 shares would be issued for proceeds of \$14,407,652.

## RELATED PARTY TRANSACTIONS

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For a detailed description of all related party transactions, please refer to the Note 12 "Related party transactions" in the unaudited condensed interim financial statements for the three-month periods ended September 30, 2018 and 2017.

## RISKS AND UNCERTAINTIES

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The operations of the Company are speculative due to the high-risk nature of its business, which is the acquisition, financing, technology and manufacturing. These risk factors could materially affect the Company's future operating results and could cause actual events to differ materially from those described in forward-looking information relating to the Company.

For a detailed description of risks and uncertainties, refer to the annual consolidated financial statements of June 30, 2018.

## CRITICAL ACCOUNTING JUDGMENTS AND ESTIMATES

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For a detailed description of the critical accounting judgments and estimates associated with the Company and its activities, please refer to the Note 3 "Critical accounting judgments and estimates" in the audited financial statements for the years ended June 30, 2018 and 2017. The Company was not required to make significant judgments, estimates and assumptions in areas other than those mentioned in the audited financial statements for the years ended June 30, 2018 and 2017.

## FUTURE CHANGES IN ACCOUNTING POLICIES

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The standards and amendments to existing standards have been published, and their adoption is mandatory for future accounting periods. Refer to the unaudited condensed interim financial statements for the three-month periods ended September 30, 2018 and 2017 for the details of these standards and amendments.

## CONTROLS AND PROCEDURES

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The information provided in this MD&A, including the financial statements, is the responsibility of management. In the preparation of these statements, estimates are sometimes necessary to make a determination of future values for certain assets or liabilities. Management believes such estimates have been based on careful judgments and have been properly reflected in the accompanying financial statements.

The Board of Directors oversees management's responsibility for financial reporting and internal control systems. This Board of directors discuss quarterly with management and annually with the independent auditors to review the scope and results of the annual audit and to review the year-to-date financial statements and related financial reporting and internal control matters before the financial statements are approved by the Board of Directors and submitted to the shareholders.

In contrast to the certificate required under National Instrument 52-109 Certification of Disclosure in Issuers' Annual and Interim Filings ("NI 52-109"), the Venture Issuer Basic Certificate does not include representations relating to the establishment and maintenance of disclosure controls and procedures ("DC&P") and internal control over financial reporting ("ICFR"), as defined in NI 52-109. In particular, the certifying officers filing this certificate are not making any representations relating to the establishment and maintenance of:

- controls and other procedures designed to provide reasonable assurance that information required to be disclosed by the Company in its annual filings, interim filings or other reports filed or submitted under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation; and
- a process to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with the Company's GAAP

The Company's certifying officers are responsible for ensuring that processes are in place to provide them with sufficient knowledge to support the representations they are making in this certificate. Investors should be aware that the design and implementation of such processes by those responsible for a venture issuer are subject to cost limitation. DC&P and ICFR as defined in NI 52-109 may result in additional risks to the quality, reliability, transparency and timeliness of interim and annual filings and other reports provided under securities legislation.

The Board of Directors has approved the Financial statements.