

# MANAGEMENT'S DISCUSSION AND ANALYSIS For the years ended June 30, 2018 and 2017

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

This Management's discussion and analysis ("MD&A") provides a review of NanoXplore Inc.'s operations, performance and financial position for the years ended June 30, 2018 and 2017 and should be read in conjunction with the audited consolidated financial statements for the years ended June 30, 2018 and 2017. The purpose of this document is to provide information on our activities. The information contained herein is dated as of October 23, 2018. You will find more information about us on NanoXplore's website at **www.nanoxplore.ca** and on SEDAR at 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. The terms "we", "our", "us", "NanoXplore" or the "Company" mean NanoXplore Inc. and its subsidiaries, unless otherwise indicated.

## CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING INFORMATION

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.

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 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.

On August 29, 2017, the Company completed the three-cornered amalgamation involving Graniz Mondal Inc. ("Graniz"), the Company and 9363-0770 Québec Inc. which constituted a reverse takeover of Graniz by the Company under the policies of the TSX Venture Exchange (the "Transaction"). After the Transaction, Graniz Mondal changed its name to NanoXplore Inc. Since September 8, 2017, 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.

The Company has the following subsidiaries:

- NanoXplore GmbH, based in Germany, with an equity interest of 100% [2017 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 Holding SA ("NanoXplore Switzerland"), based in Switzerland, with an equity interest of 100% [2017 nil]. NanoXplore Switzerland holds 100% of CEBO Injections SA ("CEBO").
- 10854611 Canada Inc., based in Canada, with an equity interest of 100% [2017 nil].

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") 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.

Sigma Industries Inc. is a manufacturing company specializing in the manufacture of composite products, has two 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.

In the coming 2 to 3 years, 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 a BBA. The study envisions a modular graphene production plant consisting of 5 graphene production lines, each with a capacity of 2,000 metric ton/year. Each line consists of 4 graphene production modules, each with a capacity of 500 metric ton/year and each module is designed based upon existing and producing graphene production module in the Corporation. The Company's proprietary graphene production technique is a batch process and modular design of the plant provides the flexibility to adjust the production output with customer requirements. 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 a 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.

During the year ended June 30, 2018, the Company raised a total of \$19,697,237 by private placement.

## **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.

## **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, 6 with MSc, and 4 with engineering or science degrees. Our researches are mainly related to battery and to our efforts to increase strength-to-weight ratio of materials with graphene increases energy efficiency.

NanoXplore has benefited from the support of NRC's Industrial Research Assistance Program. NRC has supported the Company in the development of its graphene products under the following projects which each ran for approximately 12 months and ended in June 2017:

- May 2016 "A Platform Technology to Produce Graphene Enhanced Epoxy Resins, Slurries, Pastes and Greases", to a maximum of \$288,000 for the period from May 26, 2016 to June 9, 2017;
- May 2015 the project called "A Platform Technology to Enhance Dispersibility of Graphene for approximately \$192,000 for the period from April 1, 2015 to March 31, 2016;
- May 2014 the project called "Production of Graphene Powders" for approximately \$132,000 for the period from April 1, 2014 to June 30, 2015.

Since January 2018, NanoXplore benefits from the support of NRC and for the next 3 years under the project "Development of stable Li Metal Anode for High Density Li-Sulphur Batteries".

## **SDTC**

Sustainable Development Technology Canada ("SDTC") is an arm's-length foundation created by the Government of Canada to promote sustainable development, and support projects that develop and demonstrate new technologies to address issues related to climate change, air quality, and clean water and soil. SDTC invests in Canadian companies that, through their innovative technologies, contribute positively to Canada by creating quality jobs, driving economic growth and protecting the environment.

Since the first quarter of financial 2018, NanoXplore began a project in collaboration with SDTC. 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.

The project will cover the phases of further developing and testing of advanced lightweight engineering plastics utilizing graphene, through initial/advanced prototyping, further testing and certification, up to the market readiness efforts towards full scale production of targeted components using the lightweight plastics developed.

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.

As part of the contribution agreements with the SDTC, the Company accounted government assistance as detailed below:

	\$	\$
Amount received	619,997	_
Distribution to partners	32,907	_
Deferred grant	164,940	

2017

2018

	2018 \$	2017 \$
Amount recognized as other income	422,150	

## **Production**

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. Today NanoXplore has capacity to produce 25 metric tonnes of graphene per year.

The Company has successfully finished the second phase of a development program to advance its manufacturing process from lab scale (200Kg/year in 2014) to pilot scale (4 metric tonnes/ year in 2015). During the first quarter of financial 2018, NanoXplore scaled up its graphene manufacturing to a large-scale manufacturing operation (25 metrics tonnes/year). Furthermore, NanoXplore has compounding and mixing capability and produces graphene enhanced plastic master batch pellets to be used in packaging and automotive applications. During 2015 fiscal year, NanoXplore added a twin-screw extrusion to add the capability of mixing graphene with plastic to produce master batch pellets. As a result of that, NanoXplore has a capacity of 400 metric tonnes/year master batch pellet production. To accelerate the time-to-market, NanoXplore is active in downstream acquisition of plastic forming businesses. Through the acquisition, NanoXplore accesses into the existing relationship of acquired companies with their customers and has the chance to introduce graphene rapidly to them. To support this business model, NanoXplore has acquired, in June 2016, Rada Industries, a custom plastic injection and blow molding company, and has also acquired, in November 2017, CEBO Injections SA, a Swiss-based injection molding company that is specialized in high precision and highquality injection molded products. Integration of Rada Industries and CEBO Injections SA businesses is ongoing and NanoXplore hopes to access to both companies' customers in order to offer graphene enhanced plastic solutions and products. NanoXplore is constantly looking into potential acquisition opportunities in plastic forming businesses in Europe and Canada. Indeed, on September 21, 2018, NanoXplore completed the acquisition of all outstanding shares of Sigma Industries, a manufacturing company specializing in the manufacture of composite products that has two 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 graphene production and master batch pellet production facility is located at 25 Montpellier Blvd, H4N 2G3 Montreal Canada, with a lease agreement from October 1<sup>st</sup> 2015 until October 1<sup>st</sup> 2020. Company's plastic forming facilities are located at 181 rue Brossard, J5B 1W9, Delson, Canada at Rada Industries location and at Chemin des Rosiers 2, 1337 Vallorbe, Switzerland at CEBO location.

## New graphene production plan

In the coming 2 to 3 years, 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 and BBA. The study envisions a modular graphene production plant consisting of 5 graphene production lines, each with a capacity of 2,000 metric ton/year. Each line consists of 4 graphene production modules, each with a capacity of 500 metric ton/year and each module is designed based upon existing and producing graphene production module in the Corporation. The Company's proprietary graphene production technique is a batch process and modular design of the plant provides the flexibility to adjust the production output with customer requirements. 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 a 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.

## FINANCIAL HIGHLIGHTS

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

	20 \$		2017 \$	2016 \$	
Revenues	8,656,487		3,367,569	776,850	
Loss for the period	(6,	<b>123,913)</b> (2	,125,266)	(1,487,256)	
Basic loss per share		(80.0)	(0.04)	(0.03)	
	2018	2017	Differe		
	\$	\$	\$	%	
Consolidated Statements of Cash Flows					
Operating activities	(3,281,686)	(1,659,822)	(1,621,864)	98%	
Investing activities	(1,745,379)	(641,585)	(1,103,794)	172%	
Financing activities	19,853,401	1,555,579	18,297,822	1176%	
Net change in cash before net effect of currency		(= 1 = 0.00)		(00000()	
exchange rate	14,826,336	(745,828)	15,572,164	(2088%)	
		2018	2017	2016	
	<u> </u>	\$	\$	\$	
Consolidated Statements of Financial Position					
Cash	1	5,268,666	421,214	1,167,042	
Accounts receivable		2,895,012	462,322	449,165	
Inventory		1,542,863	293,317	292,152	
Property, plant and equipment		6,488,020	3,383,184	3,099,516	
Total assets	2	6,886,737	4,736,483	5,138,434	
Operating loan		1,328,400	215,000	255,000	
Long-term Debt		4,567,970	2,162,705	2,266,148	
Total liabilities		1,128,750	3,444,842	4,127,968	
Equity	1	5,757,987	1,291,641	1,010,466	

Selected Quarterly Information					
Basic and diluted loss per					
		Revenue	Net loss	share	
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) Note 1	
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)	
Q1-2017	September 30, 2016	731,815	(545,727)	(0.01)	

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



#### **Private Placement**

On August 2, 2017, the Company completed in connection with the Transaction a brokered private placement financing of subscription receipts ("Subscription Receipts") sold at a price of \$0.45 per Subscription Receipt for gross proceeds of \$9,697,082. At the closing of the Transaction, each Subscription Receipt was converted into one unit which consist of one common share of the Company and one half of one common share purchase warrant (the "First Warrants") of the Company. Each warrant of the Company entitles the holder to acquire an additional Company common share at a price of \$0.70 for a period of 24 months from August 2, 2017. As consideration for the services of the broker agent rendered in connection with the private placement, the Company has agreed to pay the broker an aggregate cash fee equal to 7% of the gross proceeds of the private placement and to issue a number of broker warrants (the "Broker Warrants") equal to 7% of the number of Subscription Receipts issued pursuant to the private placement, except in respect of sales to certain purchasers identified by the Company representing \$1 million (the "President's List Subscribers") for which the Company agreed to pay a cash fee equal to 3.5% of the gross proceeds in respect of Subscription Receipts subscribed for by President's List Subscribers and to issue that number of Broker Warrants equal to 3.5% of the Subscription Receipts issued to President's List Subscribers. Each Broker Warrant is exercisable to purchase one common share of the Company (a "Broker Warrant Share") at a price of \$0.45 per Broker Warrant Share at any time in whole or from time to time in part for a period of 24 months following the closing of the Transaction. The Broker Warrants shall be exercisable following the satisfaction of the Release Conditions.

On March 27, 2018, the Company completed a brokered private placement financing of units sold at a price of \$1.65 per unit for gross proceeds of \$10,000,155. At the closing of the Transaction, each unit was converted into one unit which consist of one common share of the Company and one half of one common share purchase warrant (the "Second Warrants") of the Company. Each warrant of the Company entitles the holder to acquire an additional Company common share at a price of \$2.30 for a period of 24 months from March 27, 2018. As consideration for the services of the broker agent rendered in connection with the private placement, the Company has agreed to pay the broker an aggregate cash fee equal to 6% of the gross proceeds of the private placement and to issue a number of broker warrants (the "Broker Warrants") equal 4% of the number of units issued pursuant to the private placement. Each Broker Warrant is exercisable to purchase one common share of the Company (a "Broker Warrant Share") at a price of \$1.65 per Broker Warrant Share for a period of 24 months following the closing of the Transaction.

## Reverse takeover related transactions

On August 29, 2017, the Company completed the three-cornered amalgamation involving Graniz Mondal Inc. ("Graniz"), the Company and 9363-0770 Québec Inc. which constituted a reverse takeover of Graniz by the Company under the policies of the TSX Venture Exchange (the "Transaction").

Pursuant to the Transaction, Graniz changed its name to NanoXplore Inc. On September 21, 2017, NanoXplore Inc. and Group NanoXplore Inc. merged and now operate under NanoXplore Inc.

Graniz and the Company completed the Amalgamation Agreement pursuant to which Graniz acquired all the issued and outstanding common shares of the Company. Pursuant to the terms and conditions of the Amalgamation Agreement, under which it issued 56,210,252 common shares to the Company's shareholders, reflecting an exchange ratio of 1:1 (on a post consolidation basis), at a deemed price of \$0.45 per share and thereafter continued the Company's commercial and engineering activities as NanoXplore Inc. The capital structure of NanoXplore Inc. has been unchanged from Graniz's current capital structure, other than for the issuance of the shares contemplated by the Transaction. This transaction resulted in a reverse takeover of Graniz by the Company, whereby the Company has been deemed to have acquired control of Graniz through the deemed issuance of 1,412,939 common shares (on a post consolidation basis) to Graniz's shareholders.

Prior to the closing of the Transaction, Graniz completed the consolidation of its common shares on the basis of one Graniz Post-Consolidation Share for every 15 Graniz common shares outstanding. Graniz's outstanding options have been replaced by 141,293 post consolidation new options of NanoXplore Inc. at an exercise price of \$0.45 per share.

Prior to the closing of the Transaction, the Company completed the conversion of its common shares on the basis of one to 40.0667 common shares outstanding. Related adjustments have been brought to the Company's outstanding options. The Transaction constitutes a reverse takeover of Graniz but does not meet the definition of a business combination under IFRS W3, Business Combinations. Accordingly, the Company will account for the reverse takeover transaction in accordance with IFRS 2, Share-based Payment.

As part of the Transaction, NanoXplore Inc. also issued 755,556 common shares to former insiders of Graniz as settlement for debts and NanoXplore Inc. disposed of its option to acquire a 75% interest in the Mousseau West property, in exchange for which it was granted a release for money owed in connection thereof.

NanoXplore Inc. also issued an aggregate of 115,556 common shares to certain advisors pursuant to finder's fee agreements and following the receipt of shareholders' approval at the annual and special shareholders meeting of Graniz held on August 11, 2017.

## **Acquisition of CEBO Injections SA**

On November 23, 2017, through its wholly-owned subsidiary NanoXplore Switzerland Holding SA., the Company acquired all of the issued and outstanding shares of CEBO Injections SA ("CEBO") for a total consideration of 2,300,000 swiss franc ("CHF") [\$2,969,300]. Cebo is a Swiss-based injection molding company, from BCR Plastic Group. 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. This acquisition was concluded in order to introduce its graphene-enhanced solution products into the products of CEBO.

This transaction was financed using the Company's available cash and issued new long-term debt of CHF 1,150,000 [\$1,484,650] with Export Development Canada ("EDC"). The purchase price will be paid in three installments: (i) CHF 1,500,000 [\$1,936,530] at the closing date; (ii) CHF 400,000 [\$516,400] 12 months after the closing date; and (iii) CHF 400,000 [\$516,400] 24 months after the closing date (exchange rate at the date of the transaction).

## **SUBSEQUENT EVENT TO JUNE 30, 2018**

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") 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 \$
Total consideration paid for:				_
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
Total	5,091,707	8,197,648	9,011,000	17,208,648

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

Sigma Industries Inc. is a manufacturing company specializing in the manufacture of composite products, has two 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.

In accordance with IFRS 3, Business Combinations, this transaction qualifies as a business combination and will be accounted for using the acquisition method of accounting.

At the time of issuance of these financial statements and due to the short delay between the transaction date closure and the date of the issuance of the financial statements, the unavailability of Sigma's financial information prior to the date of acquisition does not allow for accurate disclosure of assets and liabilities acquired and of pro forma revenues and loss had the Company concluded this acquisition at the beginning of its fiscal year. The work will be completed within 12 months of the acquisition date, at the latest.

## **CONSOLIDATED OPERATIONS**

	2018	2017	Difference	
	\$	\$	\$	%
Revenues				
Sales of products	7,741,681	2,776,370	4,965,311	179%
Royalties	50,000	50,000	_	0%
Laboratory services	64,266	50,000	14,266	29%
Other income	800,540	491,199	309,341	63%
	8,656,487	3,367,569	5,288,918	1579
Expenses				
Wages and salaries	5,475,799	2,050,536	3,425,263	1679
Raw materials, consumables and supplies	2,348,411	1,075,984	1,272,427	1189
Research and development cost	1,154,228	694,244	459,984	66%
General administration cost	1,951,895	721,239	1,230,656	1719
Energy	312,744	167,998	144,746	869
Rent	272,599	99,855	172,744	1739
Insurance	82,126	33,073	49,053	1489
Repairs and maintenance	378,738	106,436	272,302	256%
Share-based compensation	305,267	115,287	189,980	165%
Depreciation	782,889	310,456	472,433	1529
Amortization	37,114	_	37,114	100%
Foreign exchange	63,695	17,447	46,248	265%
	13,165,505	5,392,555	7,772,950	1449
Operating loss	(4,509,018)	(2,024,986)	(2,484,032)	123%
Non-recurring expenses				
Listing expenses	(1,443,860)	(28,772)	(1,415,088)	4918%
Loss before income taxes and interests	(5,952,878)	(2,053,758)	(3,899,120)	190%
Interest on long-term debt	(223,657)	(113,143)	(110,514)	98%
Interest revenue	103,386	(1.10,1.10)	103,386	100%
Loss on disposal of joint venture	(51,318)		(51,318)	100%
Share of loss of a joint venture	(3,392)	(8,912)	5,520	(62%
Loss before income taxes	(6,127,859)	(2,175,813)	(3,952,046)	1829
Current income toyog receiver.	40.700	4 0 4 4	40.454	26000
Current income taxes recovery	49,768	1,314	48,454	36889
Deferred income taxes recovery (expense)  Loss for the period	(45,822) (6,123,913)	49,233 (2,125,266)	(95,055) (3,998,647)	(193% 188%
·	(0,120,010)	(=, -= -, = )	(=,===,===)	
Other comprehensive loss				
Items that may be subsequently reclassified to profit and loss:				
Exchange differences on translation of foreign subsidiaries	13,490	_	13,490	100%
Items that will not be reclassified to profit and loss:				
Retirement benefits – Net actuarial gains	131,812	<u> </u>	131,812	100%
Total comprehensive loss	(5,978,611)	(2,125,266)	(3,853,345)	1819



## **REVENUE**

## Sales of products

Sales of products increased of \$5,288,918 in 2018 compared to the corresponding period in 2017 mainly due to the consolidation of CEBO's sales of \$5,216,681.

## **OPERATING COST**

General increase of expenses for the operating cost during 2018 is mainly due to the consolidation of CEBO's expenses since November 23, 2017, except for general administration cost expenses and wages and salaries.

General administration cost expenses increased of \$1,230,656 in 2018 compared to the corresponding period in 2017 mainly due to an increase of \$968,084 in professional fees. The increase is mainly related to the feasibility study of the future graphene plan, to the CEBO's acquisition expenses and to Sigma's acquisition expenses.

Wages and salaries increased of \$3,801,452 in 2018 compared to the corresponding period in 2017, of which \$3,425,263 increase is included in Wages and salaries and \$376,189 in Research and development cost. The increase is mainly due to the consolidation of CEBO's salaries expenses of \$3,034,780 since November 23, 2017 and to an increase of \$834,625 due to incentive, salary increase and additional employees.

## Non-recurring expenses

Listing expenses amounts to \$1,443,860 in 2018 for compared to \$28,772 for 2017. The fees are related to the reverse takeover transactions of Graniz Mondal Inc.

## **FOURTH QUARTER RESULTS**

For the three-month period ended June 30, 2018, sales of products increased from \$813,456 in 2017 to \$3,250,531 in 2018, mainly due to the consolidation of CEBO's sales of \$2,199,545.

General increase of expenses for the operating cost during 2018 is mainly due to the consolidation of CEBO's expenses since November 23, 2017, to incentive of \$207,000 that were giving to employee and officers and to an increase in professional fees mainly related to the feasibility study of the future graphene plan and to Sigma's acquisition expenses.

## FINANCIAL POSITION, LIQUIDITY AND CAPITAL RESOURCES

## **CONSOLIDATED FINANCIAL POSITION**

	<b>2018</b> \$	2017 \$	Difference \$	Main reasons for significant differences
Assets				
Cash	15,268,666	421,214	14,847,452	The Company completed two private placements for gross proceeds of \$9.6M and \$10M and a business combination for a cash payment of \$1.9M
Accounts receivable	2,895,012	462,322	2,432,690	Increase mainly due to CEBO
Inventory	1,542,863	293,317	1,249,546	Increase mainly due to CEBO
Investment in a joint venture	_	61,308	(61,308)	
Property, plant and equipment	6,488,020	3,383,184	3,104,836	Increase due to purchase of equipment related to scale-up of production and to the equipment acquired with CEBO's acquisition
Intangible asset	338,260	_	338,260	00 = u=quie.u=
Other assets	353,916	115,138	238,778	
Total assets	26,886,737	4,736,483	22,150,254	
Liabilities and shareholders'	oguity.			
Liabilities	equity			
Accounts payable, accrued liabilities and income taxes payables	2,953,461	753,256	2,200,205	Increase mainly due to CEBO
Deferred grant	164,940	_	164,940	Amount received as part of STDC project
Deferred revenue	145,012	_	145,012	
Operating loan	1,328,400	215,000	1,113,400	Increase mainly due to CEBO
Non-current portion of payable	490,180	_	490,180	Second payment related to the acquisition of Cebo due in 17 months
Defined benefit liabilities	782,290	_	782,290	Actuarial obligation related to benefit pension plan. 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 as at June 30, 2018 other than ordinary contributions required by the plan.
Long-term debt	4,567,970	2,162,705	2,405,265	Increase mainly due to an obligation under finance lease acquired from CEBO and to debt to finance Cebo acquisition
Deferred income taxes liabilities	696,497	313,881	382,616	
Total liabilities	11,128,750	3,444,842	7,683,908	
Equity				
<b>Equity</b> Share capital	23,502,555	5,705,879	17,796,676	The Company completed two private placements
Reserve	23,502,555	223,352	2,648,281	Increase due to the issuance of warrants and options
TOSCIVO	2,07 1,033	220,002	2,070,201	granted to officers, employees and advisors in connection with the reverse takeover transaction and completion of two private placements
Foreign currency translation reserve	13,490	_	13,490	
Deficit	(10,629,691)	(4,637,590)	(5,992,101)	Losses of the period
Total equity	15,757,987	1,291,641	14,466,346	·
Total equity and liabilities				

10

## **CASH FLOW**

	2018	2017	Difference	
	\$	\$	\$	%
Cash used in operating prior to changes in working capital	(3,736,344)	(1,706,440)	(2,029,904)	(119%)
Changes in non-cash working capital	454,658	46,618	408,040	(875%)
Operating activities	(3,281,686)	(1,659,822)	(1,621,864)	(98%)
Investing activities	(1,745,379)	(641,585)	(1,103,794)	(172%)
Financing activities	19,853,401	1,555,579	18,297,822	1176%
Net effect of currency exchange rate on cash	21,116	_	21,116	100%
Net change in cash	14,847,452	(745,828)	15,593,280	(2091%)

## Operating activities

The negative variance in operating activities cash flows in 2018 is primarily due to an increase of \$2,029,904 in cash used in operating prior to changes in working capital, which is mainly due to an increase of professional fees of \$968,084 and an increase of \$834,625 due to incentive, salary increase and additional employees.

Refer to the above section "CONSOLIDATED OPERATIONS" for more information on professional fees variances.

## **Investing Activities**

Cash flows used in investing activities in 2018 and 2017 are mainly related to property, plant and equipment regarding our rampup project to produce 25 metrics tons of graphene a year. The variation between the two periods is due to the acquisition of CEBO during November 2017 for a cash amount of \$1,207,237.

## Financing activities

Cash flows generated in financing activities in 2018 is 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, to a second private placement financing of units sold at a price of \$1.65 per unit for gross proceeds of \$10,000,155 (see Financial Highlight discussion) and to the issuance of a long-term debt with EDC as part of the business combination of CEBO.

## LIQUIDITY AND CAPITAL RESOURCES

The 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 the commitment disclosed in the annual consolidated financial statements of June 30, 2018.

## **OUTSTANDING SHARES**

As at October 23, 2018, the Company has:

- 93,664,700 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.
- 14,505,594 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, 14,505,594 shares would be issued for proceeds of \$15,050,118.

## **RISKS AND UNCERTAINTIES**

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.

## SMALL REVENUE FROM GRAPHENE POWDER DIRECT SALE

To date, the Company has recorded small revenue from its graphene powder direct sale. There can be no assurance that significant losses will not occur in the near future or that the Company will be profitable in the future. The Company's operating expenses and capital expenditures may increase in subsequent years as consultants, personnel and equipment associated with sales and manufacturing of graphene powder. The Company expects to continue to incur losses unless and until such time as it enters into long term and large volume graphene supply agreement and generates sufficient revenues to fund its continuing operations. The development of NanoXplore's large volume graphene production facility will require the commitment of substantial resources to conduct time-consuming development. There can be no assurance that the Company will generate any revenues or achieve profitability.

## **LIQUIDITY CONCERNS AND FUTURE FINANCINGS**

NanoXplore will require significant capital and operating expenditures in connection with the acquisition plan and large volume graphene production facility. There can be no assurance that the Company will be successful in obtaining required financing as and when needed. Volatile markets may make it difficult or impossible for the Company to obtain debt financing or equity financing on favourable terms, if at all. Failure to obtain additional financing on a timely basis may cause the Company to postpone or slow down its development plans or reduce or terminate some or all of its activities.

## **FOREIGN EXCHANGE**

The Company is exposed to foreign exchange risk mainly related to expenses and sales in currencies other than the respective functional currencies of the Company, such as US dollars and Euro.

## **LICENCES AND PERMITS, LAWS AND REGULATIONS**

Large production volume of graphene requires permits and approvals from various government authorities, and are subject to extensive federal, provincial, and local laws and regulations governing development, production, exports, taxes, labour standards, occupational health and safety, and other matters. Such laws and regulations are subject to change, can become more stringent and compliance can therefore become more costly. In addition, the Company may be required to compensate those suffering loss or damage by reason of its activities. There can be no guarantee that NanoXplore will be able to maintain or obtain all necessary licences, permits and approvals that may be required to further scale up the graphene production facility.

## **DEPENDENCE ON MANAGEMENT AND KEY PERSONNEL**

NanoXplore is dependent on the services of key executives, including a small number of highly skilled and experienced executives and personnel. The Company's development to date has largely depended, and in the future will continue to depend, on the efforts of key management and other key personnel to develop its projects. Loss of any of these people, particularly to competitors, in the short term, could have a material adverse impact upon the Company current business.

## **HEALTH AND SAFETY AND ENVIRONMENTAL**

Currently, there is no regulation regarding health and safety and environmental impact of graphene. These regulations may come into effect in the future, such as regulations governing environmental protection and employee health and safety. Environmental legislation is evolving in a manner that is creating stricter standards, while enforcement, fines and penalties for non-compliance are also increasingly stringent. The cost of compliance with changes in governmental regulations has the potential to reduce the profitability of operations. Further, any failure by the Company to comply fully with all applicable laws and regulations could have significant adverse effects on the Company, including the suspension or cessation of operations.

## **UNINSURED RISKS**

The Company maintains insurance to cover normal business risks. In the course of manufacturing businesses, certain risks, and in particular, unexpected or unusual catastrophic events including explosions and fire may occur. It is not always possible to fully insure against such risks as a result of high premiums or other reasons. Should such liabilities arise, they could reduce or eliminate any future profitability and result in increasing costs and a decline in the value of the common shares of the Company.

## **COMPETITION**

NanoXplore competes with other graphene manufacturing companies that have interesting strong technology and have been in the market longer than NanoXplore and have stronger financial backing. Such competition may result in the Company being unable to acquire large volume customers, recruit or retain qualified employees or acquire the capital necessary to fund its operations and scale up the production of graphene. The Company's inability to compete with other graphene companies would have a material adverse effect on the Company's results of operation and business.

#### **QUALIFIED EMPLOYEES**

Recruiting and retaining qualified personnel is critical to the NanoXplore's success. Graphene is a newly discovered material and finding skilled scientists and sales team familiar to the subject is difficult. As the Company grows further, the need for skilled labour will increase. The number of persons skilled in the high-tech manufacturing business is limited and competition for this workforce is intense. This may adversely affect the business of NanoXplore if the Company cannot recruit and retain qualified personnel as and when required.

## **SHARE PRICE FLUCTUATIONS**

The market price of securities of many companies, particularly development stage companies, experience wide fluctuations in price that are not necessarily related to the operating performance, underlying asset values or prospects of such companies. There can be no assurance that fluctuations in the Company's share price will not occur.

## **CONFLICTS OF INTEREST**

Certain of NanoXplore directors and officers serve or may agree to serve as directors or officers of other companies and, to the extent that such other companies may participate in ventures in which the Company may participate, the directors of NanoXplore may have a conflict of interest in negotiating and concluding terms respecting such participation.

## **ENERGY COST**

Energy cost is a significant part of the expenses involved in the manufacturing business. NanoXplore profit margin will significantly impacts by the energy cost. In the case of increase in the electricity cost, NanoXplore's gross profit will reduce and this may adversely affect the business of NanoXplore.

## **LITIGATION**

NanoXplore has entered into legally binding agreements with various third parties on a Non-Disclosure, consulting and partnership basis. The interpretation of the rights and obligations that arise from such agreements is open to interpretation and NanoXplore may disagree with the position taken by the various other parties resulting in a dispute that could potentially initiate litigation and cause NanoXplore to incur legal costs in the future. Given the speculative and unpredictable nature of litigation, the outcome of any such disputes could have a material adverse effect on NanoXplore business.

## RELATED PARTY TRANSACTIONS

For a detailed description of all related party transactions, please refer to the Note 17 "Related party transactions" in the consolidated financial statements for the years ended June 30, 2018 and 2017.

## CRITICAL ACCOUNTING JUDGMENTS AND ESTIMATES

For a detailed description of the critical accounting judgments and estimates associated with the Company and its activities, please refer to the Note 2 "Significant management estimations and judgments in applying accounting policies" 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 consolidated financial statements for the years ended June 30, 2018 and 2017.

## **FUTURE CHANGES IN ACCOUNTING POLICIES**

The standards and amendments to existing standards have been published, and their adoption is mandatory for future accounting periods. Refer to the consolidated financial statements for the years ended June 30, 2018 and 2017 for the details of these standards and amendments.

## **CONTROLS AND PROCEDURES**

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.