NANO ONE MATERIALS CORP.

MANAGEMENT'S DISCUSSION & ANALYSIS

DECEMBER 31, 2019

MANAGEMENT'S DISCUSSION & ANALYSIS

The following Management's Discussion & Analysis ("MD&A") of Nano One Materials Corp. ("Nano One" or the "Company") for the year ended December 31, 2019, should be read in conjunction with the Company's annual audited financial statements and related notes for the year ended December 31, 2019. The financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS"). All monetary amounts in this MD&A are expressed in Canadian dollars, unless otherwise indicated.

The information contained herein is presented as at April 27, 2020 (the "MD&A Date"), unless otherwise indicated.

For the purposes of preparing this MD&A, Management, in conjunction with the Board of Directors, considers the materiality of information. Information is considered material if: (i) such information results in, or would reasonably be expected to result in, a significant change in the market price or value of Nano One's common shares; or (ii) there is a substantial likelihood that a reasonable investor would consider it important in making an investment decision; or (iii) it would significantly alter the total mix of information available to investors. Management, in conjunction with the Board of Directors, evaluates materiality with reference to all relevant circumstances, including potential market sensitivity.

Additional information relevant to the Company's activities can be found on SEDAR at www.sedar.com and on the Company's website at www.nanoone.ca.

FORWARD-LOOKING STATEMENTS

Certain statements contained in this MD&A may constitute "forward-looking statements". Such term is defined in applicable securities laws. The forward-looking information includes, without limitation, the success of research and development activities and other similar statements concerning anticipated future events, conditions or results that are not historical facts. These statements reflect management's current estimates, beliefs, intentions and expectations; they are not guarantees of future performance. The Company cautions that all forward-looking information is inherently uncertain, and that actual performance may be affected by a number of material factors, many of which are beyond the Company's control. Such factors include, among others, risks relating to research and development; the Company's intellectual property applications being approved, the Company's ability to protect its proprietary rights from unauthorized use or disclosure, the ability of the Company to obtain additional financing and secure government assistance; the Company's limited operating history; the need to comply with environmental and governmental regulations; fluctuations in currency exchange rates; operating hazards and risks; competition; and other risks and uncertainties. Although the Company has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking information, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. Accordingly, actual future events, conditions and results may differ materially from the estimates, beliefs, intentions and expectations expressed or implied in the forward-looking information. All statements are made as of the MD&A Date and, except as required by law, the Company is under no obligation to update or alter any forward-looking information.

COMPANY OVERVIEW

The Company was incorporated under the laws of the Province of Alberta on November 5, 1987 and continued under the laws of the Province of British Columbia on September 8, 2004. The Company's head office is located at Unit 101B, 8575 Government Street, Burnaby, BC, V3N 4V1, Canada. Its records office is located at Suite 2900 – 550 Burrard Street, Vancouver, BC V6C 0A3, Canada. The Company's common shares trade on the TSX Venture Exchange under the symbol "NNO.V".

The Company has developed a patented technology for the low-cost production of high-performance lithium-ion battery cathode materials used in electric vehicles, energy storage, and consumer electronics. The Company has built a demonstration pilot plant and is partnering with global leaders in the lithium-ion battery supply chain.

The Company's mission is to establish its patented technology as a leading platform for the global production of a new generation of nano-structured composite materials. Nano One is building a portfolio of intellectual property and technology expertise for applications in markets that include energy storage, specialty ceramics, pharmaceutical, semiconductors, aerospace, dental, catalysts and communications.

OVERALL PERFORMANCE

The Company has not yet realized profitable operations and has primarily relied on equity financing and government assistance programs to fund operations. Additionally, the Company received cost recoveries during the year ended December 31, 2019, in connection with an agreement with a Global OEM (Original Equipment Manufacturer) signed in June 2019 to jointly evaluate processes and innovative cathode materials for high energy density lithium-ion batteries in automotive applications (the "Work Program"). During the year ended December 31, 2019, the Company recognized cost recoveries of $356,344 in connection with the Work Program, of which $139,738 was collected in subsequent to December 31, 2019.

The ability of the Company to achieve its objectives and meet its ongoing obligations will depend on management's ability to successfully execute its business plan, achieve profitable operations and obtain additional financing, if or when required. There is no assurance that these initiatives will be successful. As at December 31, 2019, the Company had working capital of approximately $1,206,000. Management has assessed that its working capital as at December 31, 2019 in conjunction with the equity financing completed subsequent to December 31, 2019, is sufficient for the Company to continue as a going concern beyond one year.

Joint Development Agreements

On November 15, 2018, the Company entered into a Joint Development Agreement with Saint-Gobain a multinational corporation that produces a wide variety of construction and high-performance materials for applications in automotive, aerospace, health and energy. The goal of the collaboration is to enhance high temperature processing of Nano One's lithium-ion battery materials. This agreement formalizes innovative efforts that began in 2018 and the two companies will work in collaboration, under the joint development agreement, to enhance the thermal processing and performance of their respective materials.

On January 21, 2019, the Company entered into a Joint Development Agreement with Pulead Technology Industry (Pulead). The objective of the collaboration with Pulead is to develop, evaluate and optimize scaled-up production of Pulead's lithium iron phosphate (LFP) cathode materials using the Company's technology, for use in lithium-ion batteries. Licensing and commercialization opportunities will also be explored as part of the collaboration.

Private Placement – February 2020

On February 21, 2020, the Company closed a non-brokered private placement of units comprising 9,565,000 units at $1.15 per unit for gross proceeds of $10,999,750. Each unit comprises one common share and one-half of a common share purchase warrant with each whole warrant exercisable into one common share at a price of $1.60 each until February 21, 2023.

In connection with the placement, the Company issued 467,740 finders' warrants exercisable into common shares at $1.60 each until February 21, 2023. Additionally, the Company paid cash finders' fees of $557,221.

Exercise of stock options (subsequent to December 31, 2019)

From January to March 2, 2020, the Company issued 1,985,000 common shares on the exercise of stock options at prices between $0.25 and $0.70 per share, for gross proceeds of $497,375.

Government Assistance

Amounts accrued or received from Government assistance programs with the Government of Canada comprise the following:

		December 31, 2019	December 31, 2018
		$	$
	Industrial Research Assistance Program (NRC-IRAP)	84,516	61,862
(1)	Sustainable Development Technology Canada (SDTC)	1,181,944	760,145
(2)	Automotive Supplier's Innovation Program (ASIP)	168,691	569,594
	Other Grants	20,400	36,376
		1,455,551	1,427,977

(1) $676,373 was recorded within deferred government assistance as at December 31, 2019 (2018 - $nil).
(2) $277,865 was recorded within receivables as at December 31, 2018.

As at December 31, 2019, the Company has two active Government assistance programs as listed below:

National Research Council of Canada's Industrial Research Assistance Program ("NRC-IRAP"):

NRC-IRAP Program #5 (active):

Effective August 1, 2018, the Company executed an agreement with NRC-IRAP which provides the Company with a non-repayable contribution of up to $349,000 (the "grant")for the development of coatings for high durability lithium ion battery cathodes. Under the terms of the agreement, NRC-IRAP will reimburse the Company for 80% of salaries paid to Company employees involved in this project.

During the year ended December 31, 2019, the Company received a total of $84,516 (2018 - $46,454) in connection with this grant.

Sustainable Development Technology Canada ("SDTC"):

SDTC Program #1 (completed):

During the year ended December 31, 2019, the Company received the final payment of $208,130 in connection with its SDTC program effective June 1, 2016, which concluded during the year ended December 31, 2018. As at December 31, 2019, the Company had received the entire grant amount of $2,081,297 pursuant to SDTC Program #1.

SDTC Program #2 (active):

Effective July 1, 2019, the Company executed a contribution agreement with SDTC for a non-repayable grant of up to $5,000,000 (the "grant") in respect of the Company's "Scaling Advanced Battery Materials" project which represents a grant of approximately 37% of the Company's budgeted $13,445,536 for the project.

The funds are payable to the Company in five instalments including the release of a final 10% hold-back of $500,000 to the Company upon satisfactory completion, review and approval of the project by SDTC. The instalments from SDTC are to be paid to Company at the beginning of each of the four project phases ("Milestones") to June 30, 2024. Each instalment payment is subject to the Company meeting the specific project Milestones and having available cash resources to match each instalment from SDTC.

During the year ended December 31, 2019, the Company received the instalment for Milestone 1 in the amount of $973,814. From the project start date of July 1, 2019, to December 31, 2019, the Company incurred $819,452 of the budgeted costs pursuant to the Milestone 1 project phase.

Subsequent to December 31, 2019, the Company received an additional one-time non-repayable grant of $250,000 from SDTC in the form of an additional milestone payment in relation to COVID-19 pandemic relief, thereby increasing the SDTC Program #2 contribution to $5,250,000.

Automotive Supplier's Innovation Program – a program of Innovation, Science and Economic Development Canada (ISED) ("ASIP") (completed):

During the year ended December 31, 2019, the Company received a total of $168,691 in connection with the ASIP grant which commenced during the year ended December 31, 2016, and was completed during the year ended December 31, 2019. The ASIP program provided the Company with a non-repayable contribution of $1,733,506. The proceeds from the grant were incurred by the Company on all matters related to completing the construction of its pilot plant (discussed below under, "Pilot Plant Project").

2019 Warrant Exercise Incentive Program

During the year ended December 31, 2019, the Company completed a warrant exercise incentive program which facilitated the early exercise of outstanding warrants which had an expiry of September 8, 2019. The program commenced on August 8, 2019 and completed on August 23, 2019. Under the program, 676,500 warrants were exercised into common shares at a price of $1.25 each for proceeds of $845,625. Additionally, the Company issued one warrant (the "incentive warrant") for every warrant exercised under the program. The incentive warrants are exercisable into common shares at a price of $1.60 each until October 23, 2020. The incentive warrants are subject to accelerated expiry terms. There was no value recognized on issuance of the incentive warrants.

Pilot Plant Project

In 2016, the Company, NORAM Engineering and Constructors Ltd. ("NORAM") and B.C. Research Inc. ("BCRI") entered into a collaboration agreement for the design, construction, and commissioning of a demonstration pilot production plant ("pilot plant"). The goal of the pilot plant was three-fold: (i) to simulate full-scale production of lithium-ion cathode materials, (ii) showcase the Company's patented technology and (iii) demonstrate the cost, scalability, performance, and novelty of the Company's technology to strategic industry players. The pilot plant is capable of producing hundreds (100's) of kilograms batches of various lithium mixed metal cathode materials that are strategically critical to batteries for electric vehicles, energy storage System (ESS) for the electrical grid, and consumer electronics. The procurement and construction phase of the pilot project began on June 1, 2016. The construction and commissioning of the pilot plant was completed in June 2017.

A scaled-up production of lithium-ion cathode materials that meets the Company's processing and battery capacity targets has been demonstrated. Analysis of the pilot scale process is consistent with the chemistry and operating parameters developed in the laboratory. Evaluations of the pilot produced cathode materials shows crystallinity, elemental composition and battery capacity in line with the Company's laboratory scale process and materials.

The pilot plant project was supported by the Government of Canada through grants of $2,081,297 (received) from SDTC Program #1 (complete), and $1,733,506 from the Automotive Supplier Innovation Program ("ASIP"), a program of Innovation, Science and Economic Development Canada ("ISED") (complete).

TECHNOLOGY AND INTELLECTUAL PROPERTY

Nano One's technology simplifies the assembly of complex formulations of organic and inorganic ceramic powders and is suited to growth markets where the commercialization of advanced materials is inhibited by costly and entrenched industrial fabrication methods.

Nano One's innovative processing technology can be used to produce materials used in a wide range of markets. Nano One's first addressable market is cathode materials for lithium-ion rechargeable batteries for electric vehicles (EV) and energy storage systems (ESS) where its advantageous technology can bring sustainable differentiation and value in terms of cost reduction and/or performance enhancements to early adopters. There is growing demand in the lithium-ion battery market for more cost effective and higher performance energy storage solutions. Nano One is well positioned to address these needs with its patented and patent-pending technology and anticipates growth potential for the technology in many other materials markets beyond energy storage, including dental, catalysts, specialty ceramics, pharmaceutical, semiconductors, agriculture, aerospace and communications.

Nano One has developed a new process of producing high-performance cathode materials, which uses standard equipment and simple methods that are known to scale in a wide range of industrial applications. This new process can produce higher performance composite materials while using lower cost feedstock and simpler processing. Nano One's patented and patent-pending technology is a flexible manufacturing platform that enables lithium carbonate (or hydroxide) to be used as feedstock alongside other raw materials such as nickel, manganese, cobalt, iron, phosphate and aluminum. It is a water-based process operating at mild pH and temperature that forms the energy storing cathode materials used in lithium-ion batteries. The process can be configured to produce a range of different nanostructured materials and has the flexibility to shift with emerging and future battery market trends and a diverse range of other growth opportunities.

The process consists of three stages, and the major innovations lie in the first stage where a special mode of combining reactants controls crystal nucleation and growth of particles. Nucleation is the self-assembly of molecules into an organized structure. The desired nano-scale or superfine structure is formed in the first stage of the production cycle and eliminates many steps common to the incumbent industrial processes.

The underlying structure and morphology of the materials are preserved through a wide range of thermal processing steps, eliminating the need for long and repeated firings and indicative of robust and more durable material. The process produces materials with stable phase composition and high porosity, but which is configurable to meet a variety of energy density requirements.

The presence of nano-structures early in the process and before calcination (i.e. heating to high temperature) simplifies processing and is advantageous for material performance, process throughput, and scale-up. Characterization of the materials by electron microscope and x-ray characterizes the size, the composition and the kind of structure, providing evidence of a robust structure that withstands the rigors of drying and calcination and maintains the integrity of its advantageous structure through thousands of charge cycles.

Typically, synthesis of nanomaterials at the bench scale is performed in small quantities anywhere from milligrams to grams of material. Subsequent scale-up from these small quantities often leads to detrimental changes in thermodynamics (heat, temperature, energy, work) and reaction kinetics (reaction rates and chemical change). Consequently, the Company has designed, constructed and commissioned a bench scale and pilot scale reactors that emulate the thermodynamic and reaction kinetics expected in full-scale production of cathode materials.

Electric Vehicle Industry and Nano One's Research

The electric vehicle industry is being driven partly by demands for longer range vehicles which require higher energy density lithium-ion batteries that are safe, reliable and cost-effective. These factors have increased the demand for cathode materials composed of higher nickel and lower cobalt content.

Nickel-rich cathode materials include nickel cobalt aluminate (NCA) and nickel-manganese cobalt oxide (NMC-532, 622 and 811 [Nb.: "NMC-XYZ," where X, Y, and Z refers to ratios of nickel, manganese, and cobalt, respectively]). These materials are expected to play an increasingly dominant role in the lithium-ion batteries used by major electric vehicle manufacturers.

Current industrial methods require higher cost lithium hydroxide as feedstock for these nickel-rich cathode materials. The flexibility of the Company's process enables the use of lithium feedstock in the form of either carbonate or hydroxide for the production of high-performance cathode materials which could reduce constraints on the supply of battery grade lithium by enabling new sources.

To date, the Company has demonstrated the synthesis of high energy cathode material for electrical vehicles with energy densities on par with industry standards. This demonstration underlines the opportunity of Nano One's technology to enable a wider range of lithium sources for the rapidly growing electric vehicle market and supplements the Company's other opportunities in the space including improved cathode material durability, power, energy, and processing cost.

The Company successfully piloted NMC622 with 60% nickel content. These pilot tests were conducted at approximately 100 times normal lab scale, and the results provide added confidence that these nickel-rich materials can be manufactured at commercial scale.

The Company also began efforts on NMC811 with 80% nickel content, which provides relatively high energy density and has applications in longer range electric vehicles. However, NMC811 has well known instabilities that can lead to costly issues with safety, longevity and handling. The Company is developing an NMC811 material with proprietary coatings and additives to address the inherent shortcomings of NMC811.

The Company has successfully synthesized LNMO (Lithium Nickel Manganese Oxide), also referred to as "High Voltage Spinel", in the pilot plant and has filed a patent application in respect to the process that coats the LNMO with a protective material which improves its stability at higher temperatures. This coating may prove to also improve the interface between LNMO and solid-state electrolytes currently in development by a number of players for the next generation of lithium-ion batteries. This material has been sent to a number of strategic interests for testing and validation.

The Company has also developed a low-cost process for high-performance Lithium Iron Phosphate (LFP). This process uses lower cost sources of lithium, iron and phosphate than incumbent processes and has been successfully piloted. The process also generates LFP that is already carbon coated thereby eliminating additional process steps. Further, the process generates material with small particle size which is desirable and with an initial energy capacity in excess of $160mAhg^{-1}$ which is equivalent to or better than the highest performing LFP material available.

LFP is the safest and lowest cost cathode material for lithium-ion batteries because it is highly durable and does not contain supply constrained cobalt or nickel. Cost reductions could significantly increase the demand for LFP as it becomes a cathode of choice for ESS (energy storage systems), as it replaces lead-acid batteries and as it expands its foothold in the electrification of transportation. The global demand for LFP is projected to grow from 100,000 metric tonnes in 2017 to over 200,000 tonnes in 2025.

The Company continues to develop coating and doping (chemical additives) technologies for NMC and LNMO materials with the objective of improving both the durability and stability of these materials for use in solid state batteries and other advanced lithium-ion batteries. The the Company's process is suitable for component gradients within crystals and surface coatings without the need for additional process steps.

The Company has also completed preliminary engineering plans for a modular 3,300 tonnes/year NMC cathode production unit that could supply materials for roughly 24,000 60kWh electric vehicle batteries.

The Proprietary Protection

The Company believes that monetization of its technology is best pursued by protecting its proprietary position with patents and by pursuing a licensing strategy. This is seen as a capitally efficient means to leverage the supply chain, manufacturing, distribution and legal strengths of multinational materials producers, while allowing the Company and its collaborators to focus on core strengths in technology development.

As at the MD&A Date, the Company has been issued (16) sixteen patents. The Company also has related patent applications pending throughout the world. As at the MD&A Date, the following patents have been issued to the Company:

Patent Family	Short Description	Title
US 9,136,534 CA 2,906,009	Method of forming a powder by generation of a complexecelle	Complexometric Precursor Formulation For Industrial Production Of High Performance Fine And Ultrafine Powders And Nanopowders For Specialized Applications
US 9,159,999 US 10,446,835 CA 2,905,984	Method of forming a powder by formation of a surface interface	Complexometric Precursor Formulation Methodology For Industrial Production Of Fine and Ultrafine Powders and NanoPowders of Layered Lithium Mixed Oxides for Battery Applications
US 9,698,419 TW I517487 US 10,283,763 CN 105594023 JP 6271599 KR 10-1839000	Battery having a defined discharge capacity, defined porosity, low sodium content and low sulfur content.	Complexometric Precursor Formulation Methodology for Industrial Production of Fine and Ultrafine Powders and Nanopowders of Layered Lithium Mixed Oxides for Battery Production
CA 2905525	Reactor	Reactor Vessel for Complexecelle Formation
US 10,374,232 KR 10-1854708	NMC prepared by the Nano One Process	Complexometric Precursor Formulation Methodology for Industrial Production of Fine and Ultrafine Powders and Nanopowders for Lithium Metal Oxides for Battery Applications
TW I672852	Calcined powder comprising a surface stabilized with $MnPO_4$. Method of forming the powder and battery comprising the powder.	Phosphate Stabilized Lithium Ion Battery Cathode
US 10,189,719	Process for the formation of lithium metal oxide including recycling of raw materials	Improved Process for the Manufacture of Lithium Metal Oxide Cathode Materials

The Company continues to file patents relating to its portfolio of intellectual property and will update the list of issued patents from time to time but will no longer be reporting the filing of patent applications unless otherwise disclosed to the public.

The intellectual property was developed and is wholly-owned by the Company. The Company has filed other patent applications and may file additional patents at a later date to further strengthen its intellectual property and technology going forward, although no assurances can be given that it will be successful in such endeavours. The Company seeks to limit disclosure of its intellectual property by requiring employees, consultants and partners with access to the technology to execute confidentiality agreements and non-competition agreements and by restricting access to intellectual property and technology.

Despite the Company's efforts to protect its intellectual property and technology, unauthorized parties may attempt to copy aspects of its technology or to obtain and use information that the Company regards as proprietary. The laws of many countries do not protect proprietary rights to the same extent as the laws of the United States or Canada. Litigation may be necessary in the future to enforce the Company's intellectual property rights, to protect the Company's trade secrets, to determine the validity and scope of the proprietary rights of others or to defend against claims of infringement. Any such litigation could result in substantial costs and diversion or resources and could have a material adverse effect on the Company's business, operating results and financial condition. There can be no assurance that the Company's means of protecting its proprietary rights will be adequate or that competitors will not independently develop similar services or products. Any failure by the Company to adequately protect its intellectual property could have a material adverse effect on its business, operating results and financial condition.

FUTURE PLANS

The Company will continue to develop, optimize and demonstrate the benefits of producing various cathode materials using its processing technology, for use in lithium-ion batteries including the development of lithium iron phosphate (LFP), lithium nickel manganese cobaltate (NMC) and high voltage cobalt free cathode materials (HVS or LMNO).

The Company will continue to collaborate with NORAM and BCRI to operate, demonstrate and improve its pilot plant technology. The engineering design and specifications of equipment follow from commercial scale concepts developed by the Company and NORAM. The Company will continue to provide preliminary output and optimization of cathode materials. The Company will also continue the development and third party evaluation of its next-generation lithium-ion battery materials as dictated by commercial interests. The Company intends to ramp up the internal testing requirements with test cell assembly and electrochemical characterization.

The Company has collaborated with Simon Fraser University to advance the understanding of the physical and chemical characteristics of lithium-ion batteries as they charge and discharge. The two-year collaboration with SFU will be supervised by Associate Professor Dr. Byron Gates and Dr. Stephen Campbell, The Company's Chief Technology Officer, with financial support from the Mitacs Elevate Postdoctoral Fellowship Program.

The Company intends to continue its joint development agreements with Saint-Gobain to develop improved thermal processing and with Pulead to develop a next generation commercial scale LFP production plant.
As the lithium-ion battery market evolves, the Company believes its key opportunities lie in (i) manufacturing of value-added and differentiable cathode materials, (ii) enabling sources of lithium and other feedstocks that others cannot use, and (iii) customizing materials for solid state, fast charging and next-generation batteries. The Company is adjusting financial models and development programs to pursue these opportunities.

SELECTED ANNUAL INFORMATION

The following table sets out selected historical financial information of Nano One. Such information is derived from the audited financial statements of Nano One.

	December 31, 2019 $	December 31, 2018 $	December 31, 2017 $
Revenues	**-**	-	-
Loss and comprehensive loss	**(3,781,180)**	(4,997,715)	(2,699,344)
Loss per share - basic and diluted	**(0.06)**	(0.08)	(0.04)
Total assets	**2,932,912**	4,287,617	6,329,907
Total liabilities	**912,800**	174,681	136,269
Shareholders' equity	**1,868,436**	4,112,936	6,193,638

SUMMARY OF QUARTERLY RESULTS

The following table shows the results for the last eight fiscal quarters:.

Period Ending	**Revenue $**	**Loss and comprehensive loss $**	**Basic and Diluted Loss Per Share $**
December 31, 2019	-	(529,851)	(0.01)
September 30, 2019	-	(732,660)	(0.01)
June 30, 2019	-	(1,119,756)	(0.02)
March 31, 2019	-	(1,398,913)	(0.02)
December 31, 2018	-	(2,396,026)	(0.01)
September 30, 2018	-	(879,075)	(0.01)
June 30, 2018	-	(647,595)	(0.01)
March 31, 2018	-	(1,075,019)	(0.02)

FOURTH QUARTER

The Company's performance for the three months ended December 31, 2019 and December 31, 2018 was as follows (amounts are rounded):

	Three months ended December 31, 2019 $	Three months ended December 31, 2018 $	Change $
Revenue	-	-	-
Loss from operating expenses	(453,000)	(2,396,000)	1,943,000
Loss and comprehensive loss	(530,000)	(2,396,000)	1,866,000
Cash used in operating activities	(620,000)	(594,000)	(26,000)
Cash used in investing activities	(430,000)	(9,000)	(421,000)
Cash provided by financing activities	61,000	199,000	(138,000)

Significant components of loss from operating expenses and loss and comprehensive loss for the three months ended December 31, 2019 and December 31, 2018 were as follows (amounts are rounded):

	Three months ended December 31, 2019 $	Three months ended December 31, 2018 $	Increase (decrease) $
Investor relations and shareholder information	**331,000**	337,000	(6,000)
Professional fees	**15,000**	187,000	(172,000)
Research expenses, net	**8,000**	54,000	(46,000)
Salaries and benefits	**171,000**	171,000	-
Share-based payments	**16,000**	1,710,000	(1,694,000)

Key changes in the primary components of loss from operating expenses for the three months ended December 31, 2019 compared to the three months ended December 31, 2018 were as follows:

- Research expenses, net of approximately $8,000 is presented net of government assistance and cost recoveries received of approximately $496,000 during the period, which results in the Company having incurred gross research expenses (before all forms of recoveries) of approximately $504,000 during the period.

  Comparatively, the Company incurred net research expenses of approximately $53,000 during the three months ended December 31, 2018, which was net of government assistance recoveries of approximately $547,000, which results in the Company having incurred gross research expenses of approximately $600,000 during the period.

  The gross research expenses incurred during the three months ended December 31, 2019 was therefore less than that of the comparative period by approximately $96,000. Refer to "Discussion of Operations" below for greater detail with respect to research expenses.

- Professional fees decreased by approximately $172,000 as a result of lower general corporate legal fees, and lower patent filing fees incurred during the 2019 period.

- Share-based payments for the 2018 period was significantly greater due to the fair value of stock options granted during the three months ended December 31, 2018 and considering the graded vesting approach causes 'front-loaded' recognition of share-based payment expense on the grant of stock options.

Cash flows during the three months ended December 31, 2019 and December 31, 2018

Cash used in operating activities was consistent between the 2019 and 2018 periods as the composition of cash-based expenditures within loss and comprehensive loss and the net changes in working capital items were relatively consistent.

Cash used in investing activities was greater during the 2019 period driven by increased purchases of a non-redeemable GIC (short-term investment), property and equipment (research and development equipment), payments for intangible assets (patent issue costs), and the recognition of lease payments on the Company's office and warehouse/laboratory facilities as an investing activity in accordance with the transition to IFRS 16 – *Leases* ("IFRS 16") accounting, effective January 1, 2019.

Cash provided by financing activities decreased during the 2019 period as proceeds from stock option exercises during the 2018 period exceeded that from stock option exercises during the 2019 period.

DISCUSSION OF OPERATIONS

Year ended December 31, 2019, compared to year ended December 31, 2018

The Company's performance for the years ended December 31, 2019 and December 31, 2018 was as follows (amounts are rounded):

	December 31, 2019 $	December 31, 2018 $	Increase (decrease) $
Revenue	-	-	-
Loss from operating expenses	(3,815,000)	(5,025,000)	1,210,000
Loss and comprehensive loss	(3,781,000)	(4,998,000)	1,217,000
Cash used in operating activities	(2,010,000)	(2,110,000)	100,000
Cash used in investing activities	(537,000)	(210,000)	(327,000)
Cash provided by financing activities	1,141,000	800,000	341,000

Significant components of loss from operating expenses and loss and comprehensive for the years ended December 31, 2019 and December 31, 2018 were as follows (amounts are rounded):

	December 31, 2019 $	December 31, 2018 $	Increase (decrease) $
Investor relations and shareholder information	**805,000**	479,000	326,000
Professional fees	**221,000**	325,000	(104,000)
Research expenses, net	**1,070,000**	1,075,000	(5,000)
Salaries and benefits	**786,000**	653,000	133,000
Share-based payments	**428,000**	2,117,000	(1,689,000)

Key changes in the primary components of loss from operating expenses for the years ended December 31, 2019 and December 31, 2018 were as follows:

- Investor relations increased by approximately $326,000 as the Company increased its marketing, and business development efforts by working engagement additional investor relations consultants, attendance to investor and marketing conferences which also drove an increase in travel expenses, and an overall general increase in marketing outreach efforts bringing awareness to the Company's research activities and corporate milestones reached during the year ended December 31, 2019.
- Professional fees decreased by approximately $104,000 as a result of lower general corporate legal fees, and lower patent filing fees incurred during the 2019 year.

- Research expenses decreased by approximately $5,000. Research expenses incurred during the year ended December 31, 2019, were net of government assistance and cost recoveries totalling approximately $1,135,000 in aggregate, resulting in the Company having incurred gross research expenses of approximately $2,205,000 during the year then ended.

  Research expenses during the year ended December 31, 2018, were net of government assistance totalling approximately $1,428,000, resulting in the Company having incurred gross research expenses of approximately $2,503,000. The components of research expenses are discussed in greater detail below.

  Accordingly, research expenses for the year ended December 31, 2019, were approximately $298,000 less than that which was incurred during the year ended December 31, 2018.

- Salaries and benefits increased by approximately $133,000 as a result of increased staffing levels within general and administrative activity.

- Share-based payments for the year ended December 31, 2018 was significantly greater a result of a significant greater number of stock options granted during the year then ended and their resulting fair values recognized in accordance with the graded vesting model. 3,075,000 stock options were granted during the 2018 year compared to 195,000 stock options granted during the 2019 year.

Cash flows during the three months ended December 31, 2019 and December 31, 2018

Cash used in operating activities was slightly greater during the 2018 year as the net change in working capital items drove a greater use in cash from operating activities despite cash-based items within loss and comprehensive loss were greater during the 2019 year.

Cash used in investing activities was greater during the 2019 period driven by increased purchases of a non-redeemable GIC (short-term investment), property and equipment (research and development equipment), payments for intangible assets (patent issue costs), and the recognition of lease payments on the Company's office and warehouse/laboratory facilities as an investing activity in accordance with the transition to IFRS 16 – *Leases* ("IFRS 16") accounting, effective January 1, 2019.

Cash provided by financing activities was greater during the 2019 year as proceeds from stock option and warrant exercises during the 2019 year exceeded that from the 2018 year. A key contributor to this increase in cash during the 2019 year was the Company's warrant exercise incentive program (see "Overall Performance" above) which facilitated the early exercise of 676,500 warrants at a price of $1.25 each for proceeds of $845,625.

Research expenses for the years ended December 31, 2019 and December 31, 2018:

	December 31, 2019 $	December 31, 2018 $	Change $
Analytical services	**23,367**	13,497	9,870
Consulting	**102,489**	40,325	62,164
Cost recoveries	**(356,344)**	-	(356,344)
Depreciation	**425,183**	992,861	(567,678)
Government assistance	**(779,178)**	(1,427,946)	648,768
Lab rent	**-**	56,339	(56,339)
Office and lab expense	**385,461**	286,760	98,701
Salaries and benefits	**1,255,884**	1,095,900	159,984
Travel	**12,661**	17,568	(4,907)
	1,069,523	1,075,304	(5,781)

Key changes in the primary components of research expenses for the years ended December 31, 2019 and December 31, 2018 were as follows:

- Cost recoveries and government assistance recognized within research expenses amounted to $1,135,522 in aggregate. The breakdown of the components of government assistance are detailed in a table above within "Overall Performance." Notably, deferred government assistance as at December 31, 2019, includes $676,373 in funds received from SDTC in connection with SDTC Program #2, which have not yet been included within research expenses until such time that the Company's budgeted expenditures in connection with Milestone 1 of such program are complete.

- Depreciation decreased during the year ended December 31, 2019, with the key contributor being that the pilot plant was fully depreciated as at June 30, 2019. Depreciation on the pilot plant only recommenced with a new expected life upon the commencement of the SDTC Program #2 (effective July 1, 2019), and the related capital asset additions to the pilot plant in connection with such program, which only contributed approximately $4,000 to depreciation for the remainder of fiscal 2019.
- Salaries and benefits increased by $159,984 as a result of increased staffing levels within research and laboratory roles and activities.

Research expenses for the three months ended December 31, 2019 and December 31, 2018:

	Three months ended December 31, 2019 $	Three months ended December 31, 2018 $	Change $
Analytical services	**5,887**	2,939	2,948
Cost recoveries	**(268,940)**	-	(268,940)
Consulting	**29,046**	(42,572)	71,618
Depreciation	**31,608**	245,778	(214,170)
Government assistance	**(226,724)**	(546,843)	320,119
Lab rent	**-**	14,097	(14,097)
Office and lab expense	**95,298**	112,402	(17,104)
Salaries and benefits	**336,632**	266,435	70,197
Travel	**5,358**	1,542	3,816
	8,165	53,778	(45,613)

LIQUIDITY

The Company manages liquidity by careful management of its working capital to ensure its expenditures will not exceed available resources. The Company has historically relied upon equity financings and government assistance programs to satisfy its capital requirements and will continue to depend heavily upon these sources to finance its activities. The Company has not yet realized profitable operations and the ability of the Company to achieve its objectives and meet its ongoing obligations will depend on management's ability to successfully execute its business plan, achieve profitable operations and obtain additional financing, if or when required.

As at December 31, 2019, the Company had working capital of approximately $1,206,000. Management has assessed that its working capital as at December 31, 2019 in conjunction with the equity financing completed subsequent to December 31, 2019, is sufficient for the Company to continue as a going concern beyond one year.

As noted in "Overall Performance" above, the Company closed a non-brokered private placement of units on February 21, 2020, comprising 9,565,000 units at $1.15 per unit for gross proceeds of $10,999,750. In connection with the placement, the Company paid cash finders' fees of $557,221. Additionally, from January to March 2, 2020, the Company issued 1,985,000 common shares on the exercise of stock options at prices between $0.25 and $0.70 per share, for gross proceeds of $497,375.

CAPITAL RESOURCES

The Company considers items included in shareholders' equity as capital. The Company manages its capital structure and makes adjustments to it in light of changes in economic conditions and the risk characteristics of underlying assets. In order to maintain or adjust its capital structure, the Company may issue new common shares. The Company is not subject to any externally imposed capital requirements and does not presently utilize any quantitative measures to monitor its capital. The Company's capital structure as at December 31, 2019, is comprised of its components of shareholders' equity. In order to fund future projects and pay for administrative costs, the Company will spend its existing working capital and raise additional funds as needed.

The Company's ability to continue as a going concern on a long-term basis and realize its assets and discharge its liabilities in the normal course of business rather than through a process of forced liquidation is primarily dependent upon its ability to generate future profitable operations and its ability to borrow or raise additional financing from equity markets.

Transactions for the issue of share capital during the year ended December 31, 2019:

a) The Company issued 177,500 common shares on the exercise of stock options at prices ranging between $0.25 and $0.70 per share, for proceeds of $75,775. In addition, $58,120 representing the fair value of the stock options on initial vesting was re-allocated from reserves to share capital.

b) The Company issued 856,665 common shares on the exercise of warrants at a price of $1.25 per share, for proceeds of $1,070,831. In addition, $4,370 representing the fair value of certain of the warrants (finders' warrants) on initial issuance was re-allocated from reserves to share capital.

In connection with the common shares issued on the exercise of warrants, 676,500 warrants were exercised for proceeds of $845,625 in connection with the Company's early warrant exercise program effective between August 8 to 23, 2019 (see further details below). In connection with this program, the Company incurred legal fees of $5,883 which were recorded as a share issue cost and deducted from share capital.

FINANCIAL INSTRUMENTS

Financial instruments - fair value

Financial instruments measured at fair value are classified into one of three levels in the fair value hierarchy according to the relative reliability of the inputs used to estimate the fair values. The three levels of the fair value hierarchy are:

- Level 1 - Unadjusted quoted prices in active markets for identical assets or liabilities;
- Level 2 - Inputs other than quoted prices that are observable for the assets or liability either directly or indirectly; and
- Level 3 - Inputs that are not based on observable market data.

Classification of financial instruments

Financial assets:	**Classification:**	**Subsequent measurement:**
Cash and cash equivalents	FVTPL	Fair value
Short-term investment	Amortized cost	Amortized cost
Receivables	Amortized cost	Amortized cost
Deposits	Amortized cost	Amortized cost

Financial liabilities:	**Classification:**	**Subsequent measurement:**
Accounts payable and accrued liabilities	Amortized cost	Amortized cost
Accounts payable to related parties	Amortized cost	Amortized cost
Lease liabilities	Amortized cost	Amortized cost

The Company's financial instruments with the exception of cash and cash equivalents approximate their fair values. Cash and cash equivalents under the fair value hierarchy is based on Level 1 quoted prices in active markets for identical assets or liabilities. The carrying value of lease liabilities approximates its fair value due to being discounted with a rate of interest that approximates market rates.

The Company's financial instruments can be exposed to certain financial risks including liquidity risk, credit risk, interest rate risk, price risk, and currency risk. Details of these risks and related assessments are included in the Company's audited financial statements for the year ended December 31, 2019, within Note 11.

TRANSACTIONS BETWEEN RELATED PARTIES

Key management personnel are the persons responsible for the planning, directing and controlling the activities of the Company and includes both executive and non-executive Directors, and entities controlled by such persons. The Company considers all Directors and Officers of the Company to be key management personnel.

The following transactions were carried out with related parties:

Services	Nature of relationship	**Transactions year ended December 31, 2019 $**	Transactions year ended December 31, 2018 $	**Balances outstanding December 31, 2019 $**	Balances outstanding December 31, 2018 $
General and administrative	A company with a common Director/Officer	-	4,321	-	-
Legal fees (1)	A company with a common Director/Officer	118,433	170,763	16,883	16,046
Management fees	A company controlled by a Director (*)	60,000	60,000	5,250	-
Salaries and benefits	Former Officer (*)	-	53,682	-	-
Salaries and benefits / Research expenses	Officers/Directors (*)	335,712	207,590	-	-
Share-based payments	Officers/Directors (*)	-	1,585,686	-	-
Expense reimbursements	Officer (*)	-	-	2,731	-
		514,145	2,082,042	**24,864**	16,046

(*) Member of key management personnel.

(1) Legal fees are allocated to both professional fees and intangible assets.

OUTSTANDING SHARE DATA

The authorized share capital of the Company consists of unlimited common shares without par value. All issued common shares are fully paid. As at MD&A Date, there were 78,739,802 common shares outstanding.

As at MD&A Date, the Company has stock options outstanding and exercisable as follows:

Options outstanding #	Options exercisable #	Exercise price $	Expiry date
10,000	10,000	1.57	September 30, 2020
15,000	15,000	1.28	September 30, 2020
25,000	25,000	0.74	November 30, 2020
17,850	17,850	1.57	November 30, 2020
20,000	20,000	1.28	November 30, 2020
225,000	225,000	0.25	January 19, 2021
60,000	60,000	1.37	January 24, 2021
100,000	100,000	0.38	April 8, 2021
50,000	50,000	0.50	September 13, 2021
75,000	75,000	0.70	March 10, 2022
25,000	25,000	0.67	June 5, 2022
150,000	150,000	1.15	August 11, 2022
50,000	50,000	1.08	September 13, 2022
150,000	150,000	1.14	January 3, 2023
100,000	100,000	1.19	January 9, 2023
233,075	233,075	1.57	July 12, 2023
25,000	25,000	1.08	September 10, 2023
2,410,000	2,410,000	1.28	November 12, 2023
100,000	100,000	1.35	March 21, 2024
3,840,925	**3,840,925**		

As at MD&A Date, the Company has warrants outstanding and exercisable as follows:

Warrants #	Weighted average exercise price $	Expiry Date	Weighted average remaining life (years)
676,500	**1.60**	**October 23, 2020**	**0.81**

CHANGES IN ACCOUNTING POLICIES INCLUDING INITIAL ADOPTION

The Company adopted the following accounting standards that were effective for accounting periods beginning on or after January 1, 2019:

IFRS 16 - *Leases*

IFRS 16 specifies how to recognize, measure, present and disclose leases. The new standard provides a single lessee accounting model, requiring lessees to recognize assets and liabilities for all leases unless the lease term is 12 months or less or the underlying asset has a low value. Consistent with its predecessor, IAS 17 the new lease standard continues to require lessors to classify leases as operating or finance. Adoption of IFRS 16 is required for annual periods beginning on or after January 1, 2019. The Company has elected to adopt IFRS 16 using the modified retrospective approach. The most significant effect of the new standard is the lessee's recognition of the initial present value of unavoidable future lease payments as right-of-use ("ROU") assets and lease liabilities on the statements of financial position, including those for most leases that would formerly have been accounted for as operating leases.

As at December 31, 2019, the Company had two lease agreements in effect which commenced during the year ended December 31, 2016. The Company's two lease agreements are for its office space, and its warehouse/laboratory facility ("facility"). In the context of IFRS 16, aggregate ROU assets of $285,552 and lease liabilities of $317,195 were recognized as at January 1, 2019, representative of the cumulative impact of the two leases as if they had been accounted for under IFRS 16 from their inceptions. The lease liabilities were measured at the present value of the lease payments, discounted using the Company's weighted average incremental borrowing rate of approximately 9% on January 1, 2019. The ROU assets (recognized within property and equipment) were measured at amounts equal to the corresponding initial lease liabilities.

The adoption of IFRS 16 requires the Company to make judgments that affect the valuation of the lease liabilities and the valuation of the ROU assets. These include: determining contracts that are within the scope of IFRS 16; determining the contract term; and determining the interest rate used for the discounting of future cash flows.

The Company's significant accounting policy for its leases is described in Note 2 of the Company's audited financial statements for the year ended December 31, 2019.

New Interpretation IFRIC 23 - *Uncertainty over Income Tax Treatments*

On June 7, 2017, the IASB issued IFRIC Interpretation 23, *Uncertainty over Income Tax Treatments*. IFRIC 23 provides guidance on the accounting for current and deferred tax liabilities and assets in circumstances in which there is uncertainty over income tax treatments.

There was no impact to the Company's financial statements as a result of adopting this new standard.

CRICITAL ACCOUNTING ESTIMATES

The preparation of financial statements in conformity with IFRS requires management to make estimates, judgments and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and reported amounts of income and expenses during each reporting period. Estimates and assumptions are continuously evaluated and are based on management's experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. However, actual outcomes can differ from these estimates.

The information about significant areas of estimation uncertainty and judgment considered by management in preparing the financial statements are described in Note 2 of the Company's audited financial statements for the year ended December 31, 2019.

OFF-BALANCE SHEET ARRANGEMENTS

Nano One does not utilize off-balance-sheet arrangements.

PROPOSED TRANSACTIONS

There are no proposed transaction as the MD&A Date.

RISKS AND UNCERTAINTIES

Risk is inherent in all business activities and cannot be entirely eliminated. The risks and uncertainties described in this MD&A are considered by management to be the most important in the context of the Company's business as of the MD&A Date. Those risks and uncertainties are not inclusive of all the risks and uncertainties the Company may be subject to, and other risks may apply.

Global Pandemic

In March 2020, the World Health Organization declared coronavirus COVID-19 a global pandemic. This contagious disease outbreak, which has continued to spread, and any related adverse public health developments, has adversely affected workforces, economies, and financial markets globally, potentially leading to an economic downturn. It is not possible for the Company to predict the duration or magnitude of the adverse results of the outbreak and its effects on the Company's business or results of operations at this time.

Intellectual Property Protection

The Company cannot provide any assurance that any intellectual property applications will be approved. Even if they are approved, such patents, trademarks or other intellectual property registrations may be successfully challenged by others or invalidated. The success of the Company and its ability to compete are substantially dependent on its internally developed technologies and processes which the Company will need to protect through a combination of patent, copyright, trade secret and trademark law.

The trademark, copyright and trade secret positions of the Company's business are uncertain and involve complex and evolving legal and factual questions. In addition, there can be no assurance that competitors will not seek to apply for and obtain trademarks and trade names that will prevent, limit or interfere with the Company's processes. Litigation or regulatory proceedings, which could result in substantial cost and uncertainty to the Company, may also be necessary to enforce the intellectual property rights of the Company or to determine the scope and validity of other parties' proprietary rights. There can be no assurance that the Company will have the financial resources to defend its patents, trademarks and copyrights from infringement or claims of invalidity.

The patent positions of emerging companies can be highly uncertain and involve complex legal and factual questions. Thus, there can be no assurance that any patent applications made by or on behalf of the Company will result in the issuance of patents, that the Company will develop additional proprietary products that are patentable, that any patents issued or licensed to the Company will provide the Company with any competitive advantages or will not be challenged by any third parties, that the patents of others will not impede the ability of the Company to do business or that third parties will not be able to circumvent the patents assigned or licensed to the Company. Furthermore, there can be no assurance that others will not independently develop similar products, duplicate any of the Company's products or, if patents are issued and licensed to the Company, design around the patented product developed for the benefit of the Company.

Since patent applications are maintained in secrecy for a period of time after filing, and since publication of discoveries in the scientific or patent literature often lags behind actual discoveries, the Company cannot be certain that the inventors of the patents were the first creators of inventions covered by pending applications, or that it was the first to file patent applications for such inventions. There can be no assurance that the Company's patents, if issued, would be valid or enforceable by a court or that a competitor's technology or product would be found to infringe such patents.

The Company is not currently aware of any claims asserted by third parties that the Company's intellectual property infringes on their intellectual property. However, in the future, a third party may assert a claim that the Company infringes on their intellectual property. If the Company is forced to defend against these claims, which may be with or without any merit or whether they are resolved in favour or against the Company, the Company may face costly litigation and diversion of management's attention and resources. As a result of such a dispute, the Company may have to develop costly non-infringement technology or enter into license agreements which may not be available at favourable terms.

Access to Proprietary Information

The Company generally controls access to and distribution of its technologies, documentation and other proprietary information. Despite efforts by the Company to protect its proprietary rights from unauthorized use or disclosure, parties may attempt to disclose, obtain or use its solutions or technologies. There can be no assurance that the steps the Company has taken or will be taking will prevent misappropriation of its solutions or technologies, particularly in foreign countries where laws or law enforcement practices may not protect proprietary rights as fully as in Canada or the United States.

Performance and Scalability

To be successful, Nano One will have to successfully scale its internally developed technology while maintaining high product quality and reliability. If Nano One cannot maintain high product quality on a large scale, the Company will be adversely affected. Nano One may encounter difficulties in scaling up cathode materials that are typically required to prototype full size battery cells. Even if Nano One is successful in developing its technologies, Nano One does not know whether the Company will do so in time to satisfy the requirements of the electric vehicle industry. The current facility is a pilot plant and lab with limited production capacity.

Any interruption in operations at the current facility could result in the inability to successfully execute the business plan. A number of factors could cause interruptions, including, but not limited to, equipment malfunctions or failures, work stoppages or slow-downs, damage to or destruction of the facility or regional power shortages. The success of the Company and its ability to compete are substantially dependent on its internally developed technologies.

Environmental Regulation

The Company's business and operations are subject to environmental regulation in the areas in which it operates. There is no assurance that future changes in environmental regulation, if any, will not adversely affect the Company's business and operations.

Additionally, applicable regulations may change, and additional government regulations may be enacted that could impact the Company. We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative action. If we are not able to maintain regulatory compliance, are slow or unable to adopt new requirements or policies, or effect changes to existing requirements, the Company may be adversely affected.

Commodity Price, Raw Materials

Industrial chemicals used in the Nano One technology are subject to market price fluctuations. Market price fluctuations could have a material adverse effect on Nano One's business plan execution. There can be no assurance that the price of the raw materials will not increase in the future.

Competition

Despite efforts by the Company to protect its proprietary rights on which the Company's business is dependent, competitive products may be developed in the future. Competition could adversely affect the Company's ability to acquire market share.

Early Stage

The Company has no history of profitable operations and its present business is at an early stage. As such, the Company is subject to many risks including under-capitalization, cash shortages, and limitations with respect to personnel, financial and other resources and the lack of revenue. There is no assurance that the Company will be successful in achieving a return on shareholders' investment and the likelihood of success must be considered in light of its early stage of operations.

The Company currently has no source of revenue and expects to obtain financing in the future primarily through further equity and/or debt financing. While it has been successful in obtaining financing in the past, there is no guarantee that the Company will be successful now, or in the future. Failure to raise additional financing on a timely basis could cause the Company to suspend its operations and eventually to forfeit or sell its interest in its assets.

Dependence on Management and Key Personnel

The Company's success depends largely upon the continued services of its executive Officers and other key employees. From time to time, there may be changes in the Company's executive management team resulting from the hiring or departure of executives, which could disrupt its business. If the Company is unable to attract and retain top talents, its ability to compete may be harmed. The Company's success is also highly dependent on its continuing ability to identify, hire, train, retain and motivate highly qualified personnel. Competition for highly skilled technical, research and development, management, sales and other employees is high in the Company's industry, and the Company may not be successful in attracting and retaining such personnel. Failure to attract and retain qualified executive Officers and other key employees could have a material adverse effect on its business, prospects, financial condition, results of operations and cash flows.

Management of Growth

The Company could experience growth that could put a significant strain on each of the Company's managerial, operational and financial resources. The Company must implement and constantly improve its operational and financial systems and expand, train and manage its employee base to manage growth. In addition, the Company expects that its operational and management systems will face increased strain as a result of the expansion of the Company's technologies. The Company might not be able to effectively manage the expansion of its operations and systems, and its procedures and controls might not be adequate to support its operations. In addition, management might not be able to make and execute decisions rapidly enough to exploit market opportunities for the expansion of the Company's technologies. If the Company is unable to manage its growth effectively, its business, results of operations and financial condition will suffer. Failure to effectively manage growth could also result in difficulty in launching new processing technology or enhancing existing processing technology, declines in quality or end-user satisfaction, increases in costs or other operational difficulties, and any of these difficulties could have a material adverse effect on its business, prospects, financial condition, results of operations and cash flows.

Economic Conditions

Current and future unfavourable economic conditions could negatively impact the Company's financial viability. Unfavourable economic conditions could also increase the Company's financing costs, decrease net income or increase net loss, limit access to capital markets and negatively impact any of the availability of credit facilities to the Company.

Additional Capital Requirements

The Company has incurred annual losses since inception and it plans on continuing to make significant expenditures to support its business growth and may require additional funds to respond to business challenges, including the need to expand sales and marketing activities, develop new processing technologies to enhance its existing technology, enhance its operating infrastructure, and acquire complementary businesses and technologies. Accordingly, the Company may need to engage in equity or debt financings to secure additional funds. If the Company raises additional funds through further issuances of equity or convertible debt securities, the Company's existing shareholders could suffer significant dilution, and any new equity securities the Company issues could have rights, preferences and privileges superior to those of holders of the Company's common shares. Any debt financing secured by the Company in the future could involve restrictive covenants relating to its capital raising activities and other financial and operational matters, which might make it more difficult for it to obtain additional capital and to pursue business opportunities.

The Company can provide no assurance that sufficient debt or equity financing will be available on reasonable terms or at all to support its business growth and to respond to business challenges and failure to obtain sufficient debt or equity financing when required could have a material adverse effect on its business, prospects, financial condition, results of operations and cash flows.

The Company expects its cash and cash equivalents will be reduced due to future operating losses and working capital requirements, and it cannot provide certainty as to how long the Company's cash and cash equivalents will last or that it will be able to access additional capital when necessary. The Company expects to incur future losses and generate negative cash flows until it can produce sufficient revenues to cover its costs. The Company may never become profitable. Even if it does achieve profitability, the Company may be unable to sustain or increase its profitability in the future. For the reasons discussed in more detail below, there are substantial uncertainties associated with the Company achieving and sustaining profitability. the Company expects its cash reserves will be reduced due to future operating losses and working capital requirements, and it cannot provide certainty as to how long its cash and cash equivalents will last or that it will be able to access additional capital if and when necessary.

The Company may not be able to successfully execute its business plan

The execution of the Company's business plan poses many challenges and is based on a number of assumptions. the Company may not be able to successfully execute its business plan. If the Company experiences significant cost overruns on its programs, or if its business plan is more costly than it anticipates, certain research and development activities may be delayed or eliminated, resulting in changes or delays to its commercialization plans, or the Company may be compelled to secure additional funding (which may or may not be available) to execute its business plan. the Company cannot predict with certainty its future revenues or results from its operations. If the assumptions on which its revenues or expenditures forecasts are based change, the benefits of the Company's business plan may change as well. In addition, the Company may consider expanding its business beyond what is currently contemplated in its business plan. Depending on the financing requirements of a potential acquisition or new product opportunity, the Company may be required to raise additional capital through the issuance of equity or debt. If the Company is unable to raise additional capital on acceptable terms, it may be unable to pursue a potential acquisition or new product opportunity.

Information Technology Interruptions or Breaches

The Company's business operations are managed through a variety of information technology systems. These systems govern all aspects of its operations. While the Company has implemented a number of measures to keep its technology systems fully operational and to mitigate the risks associated with a failure of its systems, the Company's systems are subject to damage or interruption from power outages, computer and telecommunications failures, computer viruses, cyber-attacks, security breaches, catastrophic events such as fires, floods, earthquakes, tornadoes, hurricanes, acts of war or terrorism, and usage errors by its employees. If the Company's information technology systems are damaged or cease to function properly, the Company may have to make a significant investment to fix or replace them and the Company may suffer loss of critical data and interruptions or delays in its operations in the interim. Any material interruption in its information technology systems could have a material adverse effect on the Company's business, prospects, financial condition, results of operations and cash flows.

Conflicts of Interest

Certain of the Directors, Officers and other members of management of the Company serve (and may in the future serve) as Directors, Officers and members of management of other companies and therefore, it is possible that a conflict may arise between their duties as a Director, Officer or member of management of the Company and their duties as a Director, Officer or member of management of such other companies. The Directors and Officers of the Company are aware of the existence of laws governing accountability of Directors and Officers for corporate opportunity and requiring disclosures by Directors of conflicts of interest and the Company will rely upon such laws in respect of any Directors' and Officers' conflicts of interest or in respect of any breaches of duty by any of its Directors or Officers. All such conflicts will be disclosed by such Directors or Officers in accordance with the BCBCA and they will govern themselves in respect thereof to the best of their ability in accordance with the obligations imposed upon them by law.

INTERNAL CONTROLS OVER FINANCIAL REPORTING

Management has designed internal controls over financial reporting to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS. The design of the Company's internal control over financial reporting was assessed as of the MD&A Date.

Based on this assessment, it was determined that certain weaknesses existed in internal controls over financial reporting. As indicative of many small companies, the lack of segregation of duties and effective risk assessment were identified as areas where weaknesses existed. The existence of these weaknesses is to be compensated for by senior management monitoring, which exists. Management will continue to monitor very closely all financial activities of the Company and increase the level of supervision in key areas. It is important to note that this issue would also require the Company to hire additional staff in order to provide greater segregation of duties, which is not a cost-effective course of action at this time. Accordingly, management has chosen to disclose the potential risk in its filings and proceed with increased staffing only when the budgets and work load will enable the action. The Company has attempted to mitigate these weaknesses, through a combination of extensive and detailed review by management of the financial statements, the integrity and reputation of senior accounting personnel, and candid discussion of those risks with the audit committee.

MANAGEMENT'S RESPONSIBILITY FOR FINANCIAL STATEMENTS

Information provided in this report, including the financial statements, is the responsibility of management. In the preparation of the financial statements, estimates are sometimes necessary to make a determination of future value 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. Management maintains a system of internal controls to provide reasonable assurances that the Company's assets are safeguarded and to facilitate the preparation of relevant and timely information.

APPROVAL

The Board of Directors of the Company has approved the disclosure contained in this MD&A.