**Nano One Materials Corp.**

**Management's Discussion & Analysis**

**For the nine months ended**

**September 30, 2020**

## MANAGEMENT'S DISCUSSION & ANALYSIS

The following Management's Discussion & Analysis ("MD&A") of Nano One Materials Corp. ("Nano One" or the "Company") for the nine months ended September 30, 2020, should be read in conjunction with the Company's condensed interim financial statements for the nine months ended September 30, 2020, and the annual audited financial statements 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 **November 18, 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

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. Moreover, the Company has filed on SEDAR an Annual Information Form ("AIF") dated September 8, 2020, and a Short Form Prospectus dated October 26, 2020.

## FORWARD-LOOKING STATEMENTS

This MD&A contains certain "forward-looking information" and "forward-looking statements" (collectively, "forward-looking statements"), within the meaning of applicable Canadian securities laws, which are based upon the Company's current internal expectations, estimates, projections, assumptions and beliefs. All information, other than statements of historical facts, included in this MD&A that addresses activities, events or developments that the Company expects or anticipates will or may occur in the future is forward-looking information. Such statements can be identified by the use of forward-looking terminology such as "expect", "likely", "may", "will", "should", "intend", or "anticipate", "potential", "proposed", "estimate" and other similar words, including negative and grammatical variations thereof, or statements that certain events or conditions "may" or "will" happen, or by discussions of strategy. Forward-looking statements include estimates, plans, expectations, opinions, forecasts, projections, targets, guidance, or other statements that are not statements of fact. Such forward-looking statements are made as of the date of this MD&A and, except as required by law, the Company is under no obligation to update or alter any forward-looking information.

Forward-looking statements in this MD&A may include, but are not limited to, statements with respect to: the use of the net proceeds from previous financings; the performance of the Company's business and operations; the intention to grow the business, operations and potential activities of the Company; regulatory changes; the competitive conditions of the industry and the Company's competitive position in the industry; the Company's business plans and strategies; the anticipated benefits of the Company's partnerships; the Company's licensing, supply chain and joint venture opportunities; the applicable laws, regulations and any amendments thereof; and any anticipated future gross revenues and profit margins of the Company's operations.

With respect to the forward-looking statements contained in this MD&A, the Company has made assumptions regarding, among other things: the use of the net proceeds of previous financings; operating and capital costs; anticipated partnerships; the Company's ability to access future financing opportunities; and the Company's ability to attract and retain qualified personnel or management.

Although the Company believes that the expectations reflected in the forward-looking statements are reasonable, there can be no assurance that such expectations will prove to be correct. The Company cannot guarantee future results, levels of activity, performance or achievements. There are risks, uncertainties and other factors, some of which are beyond the Company's control, which could cause actual results, performance or achievements of the Company, as applicable, to differ materially from any future results, performance or achievements expressed or implied by such forward-looking statements contained in this MD&A. Refer to "Risks and Uncertainties" below for details of certain risks.

## COMPANY OVERVIEW

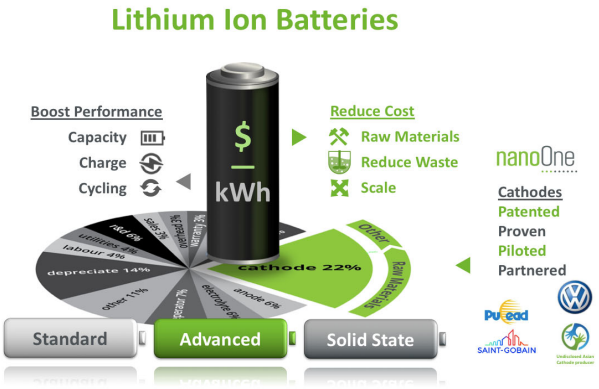
### Corporate Structure

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. On March 5, 2015, the Company completed a combination with Perfect Lithium Corp. ("PLC"), a private company incorporated in February 2011 under the laws of the Province of British Columbia, whereby it acquired all the issued and outstanding common shares of PLC in exchange for issuing common shares to the former shareholders of PLC. On July 1, 2015, the Company amalgamated with PLC and continued as one company under the name, Nano One Materials Corp. Nano One trades on the TSXV under the symbol "NNO".

The Company's head office is located at Unit 101B, 8575 Government Street, Burnaby, British Columbia V3N 4V1 and its registered and records office is located at 2900 - 550 Burrard Street, Vancouver, British Columbia V6C 0A3.

### Business of the Company

The Company has developed, patented and scaled-up an innovative one-pot process for the production of cathode active materials (CAM) for lithium-ion battery applications in electric vehicles, energy storage systems, and consumer electronics. Nano One has proven its technology in the laboratory, built a demonstration pilot plant, and is partnering with key automotive original equipment manufacturers ("OEMs") and cathode manufacturers. Nano One's technology is intended to improve the performance and cost of cathode materials, and to simplify production using environmentally sustainable processes. It is a manufacturing platform suited to many types of lithium-ion cathode materials, and applies to automotive, grid storage and consumer electronic batteries, including standard, advanced and next generation solid state batteries.




Nano One's patented "one-pot process" (the "One-Pot Process") is engineered using non-sulfate forms of metal feedstock, with the intention of eliminating sulfate waste, water consumption and added process costs. Furthermore, the process uses lithium feedstock in the form of carbonate rather than hydroxide which is costly, corrosive and harder-to-handle. The process also forms innovative coated nanocrystal cathode powders that are designed to be more durable than conventional cathode powders.

The nanocrystal innovation addresses a fundamental battery trade-off between energy density and durability. Increased durability would provide electric vehicle manufacturers greater flexibility in optimizing range, charging rates, safety, and cost. The One-Pot Process combines all input components: lithium, metals, additives, and coatings in a single reaction to produce a precursor that, when dried and fired, forms quickly into a single crystal cathode material simultaneously with its protective coating.


Some of the cathode materials and compositions under research by the Company include:

- Lithium Iron Phosphate **(LFP)**
- Lithium Nickel Manganese Oxide, also referred to as "High Voltage Spinel" **(HVS or LMNO)**; and
- Lithium nickel manganese cobaltate **(NMC).**

## OVERALL PERFORMANCE

### Cash flows

During the nine months ended September 30, 2020, the Company generated a net increase in cash and cash equivalents of approximately $13,176,000 (before giving effect to the purchase of a $1,000,000 short-term investment).

Key contributors to the increase in cash and cash equivalents were as follows:

- Closing of a private placement for gross proceeds of $10,999,750 (see “Share Capital Information”);
- Exercise of stock options and warrants for total proceeds of $3,566,000; and
- Proceeds from Government assistance programs of approximately $3,681,000 in aggregate, including $3,055,000 from Sustainable Development Technology Canada (“SDTC”).

On October 29, 2020, the Company completed a short-form prospectus financing consisting of the issue of 5,282,900 units at a price of $2.72 per unit for gross proceeds of $14,369,488. After deducting finders’ and other fees of the financing, the net proceeds to the Company were $13,386,579 upon closing. See “Share Capital Information” below.

### Results of Operations

The Company incurred a loss and comprehensive loss during the nine months ended September 30, 2020 of approximately $3,109,000. This includes approximately $1,277,000 in net research recoveries which decreased the loss for the period.

During the nine months ended September 30, 2020, net research recoveries included expenditures on research activities of approximately $1,528,000 (excluding non-cash depreciation allocations of approximately $172,000) before deducting:

- Government assistance funding received or amortized of approximately $2,752,000 (see “Government Assistance” below); and
- Cost recoveries of approximately $224,000.

As at September 30, 2020, the Company had working capital of approximately $12,783,000. See “Liquidity and Capital Resources” below.

### Government Assistance

The Company receives funding from the Government of Canada for its research activities through various programs. During the nine months ended September 30, 2020 and September 30, 2019, the following amounts were recognized as a reduction to research expenses:

| | **September 30, 2020 $** | September 30, 2019 $ |
|---|---|---|
| Cash received: | | |
| Sustainable Development Technology Canada (SDTC) | 3,055,202 | 1,181,944 |
| Innovation Assistance Program (IAP) | 241,225 | - |
| Automotive Supplier's Innovation Program (ASIP) | 217,446 | 168,691 |
| Industrial Research Assistance Program (NRC-IRAP) | 164,167 | 52,431 |
| Other Grants | 2,700 | 15,000 |
| | **3,680,740** | 1,418,066 |
| Non-cash amortization and deferrals | (928,480) | (865,613) |
| | **2,752,260** | 552,453 |

The cumulative amount of program funding received from the Government of Canada for all periods are as follows:

| | **September 30, 2020** | December 31, 2019 |
|---|---|---|
| | **$** | $ |
| Sustainable Development Technology Canada (SDTC) | 6,110,313 | 3,055,111 |
| Automotive Supplier's Innovation Program (ASIP) | 1,950,952 | 1,733,506 |
| Industrial Research Assistance Program (NRC-IRAP) | 776,848 | 612,681 |
| Innovation Assistance Program (IAP) (from NRC-IRAP) | 241,225 | - |
| Scientific Research & Experimental Development (SR&ED) | 98,661 | 98,661 |
| Other Grants | 80,059 | 77,359 |
| | **9,258,058** | 5,577,318 |

**Deferred government assistance:**

As at September 30, 2020, $1,604,853 is recorded within deferred government assistance in relation to SDTC. The Company records the receipt of SDTC grant instalments initially as a liability (deferred government assistance) and recognizes the grant as a reduction to research expenses on a pro rata basis upon incurring the required expenditures associated with the current Milestone project phase at the time.

The Company's primary active Government assistance program is that with SDTC, as follows:

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

Effective July 1, 2019, the Company executed a contribution agreement with SDTC for a non-repayable grant of up to $5,000,000 in respect of the Company's "Scaling Advanced Battery Materials" project. During the nine months ended September 30, 2020, the Company received an additional one-time non-repayable grant of $250,000 from SDTC in relation to COVID-19 pandemic relief, thereby increasing the SDTC Program #2 contribution from SDTC to $5,250,000 (collectively, the "grant").

This project will support scale up activities with industrial partners and collaborators. The project proposal to SDTC involves five multinational manufacturers and European automakers contributing at various stages of research, development, piloting and commercialization. Nano One is engaged with Pulead Technology, Saint-Gobain, and Volkswagen Group Research ("Volkswagen"). Details on the other two project contributors remain confidential.

On May 6, 2020, the Company announced that the Innovative Clean Energy (ICE) Fund of the Province of British Columbia's Ministry of Energy, Mines and Petroleum Resources will be contributing $3,033,000 to the SDTC Program #2. The funds are non-repayable, and the Company will receive the funds in alignment with the SDTC grant as described above.

The funds from SDTC 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 review and approval of the project by SDTC. The instalments from SDTC are to be paid to the Company at the beginning of each of the four (4) project phases ("Milestones") through 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.

Effective May 31, 2020, the Company had successfully completed Milestone 1 and on September 21, 2020, the Company received the instalment for Milestone 2 from SDTC and ICE in the aggregate amount of $2,805,202.

## PARTNERSHIPS, MILESTONES, OBJECTIVES AND INTELLECTUAL PROPERTY

### Strategic Partnerships

*Volkswagen:*

With Volkswagen, Nano One is focused on improving the durability of cathode materials using Nano One's innovative One-Pot Process and coated single crystal materials. Improved durability gives automotive OEMs like Volkswagen the ability to charge faster, drive further, extend warranties and lower the cost of long range and mass market electric vehicles. Nano One's strategy with Volkswagen is to define and create demand for a new generation of cathode materials, requiring royalty bearing rights to Nano One's intellectual property and licensing agreements with Volkswagen and/or its supply chain.

*Saint-Gobain:*

Under the 2018 Joint Development Agreement with Saint-Gobain, Nano One and Saint-Gobain are jointly developing technology to improve efficiencies in the final stage of cathode production, where cathode powders are conveyed through long expensive furnaces to transform them into active battery materials. A successful program could lead to Nano One and Saint-Gobain co-marketing their technologies and products for improved thermal processing of cathode active materials.

*Pulead Technology Industry:*

Under the 2019 Joint Development Agreement with Pulead, Nano One is focused on manufacturing innovations and plant design to improve the cost, margins and competitiveness of lithium iron phosphate ("LFP"). LFP is the safest, longest lasting and cheapest cathode material and is used in electric buses, fleet vehicles, and renewable energy storage; and with costs coming down, it is anticipated to replace lead acid batteries and potentially fuel a new generation of long range, long lasting electric vehicles. Success in this joint development program could result in Pulead entering into a royalty bearing license agreement with Nano One for the rights to use its intellectual property for the production of LFP.

*Asian Cathode Manufacturer*

In August 2020, Nano One signed a Joint Development Agreement with a large multinational materials producer that supplies the Asian automotive industry. Work here is focused on jointly developing the combined technologies of both companies to pursue a manufacturing opportunity, through licensing or joint venture, to supply materials for a new generation of lithium-ion batteries.

### Milestones

*Longevity*

In June 2020, the Company announced a breakthrough development of a coated, single crystal cathode material for lithium-ion batteries that is providing up to four (4) times improvement in longevity compared to uncoated materials. This technology is applicable to all of Nano One's cathode materials but is especially relevant to NMC811.

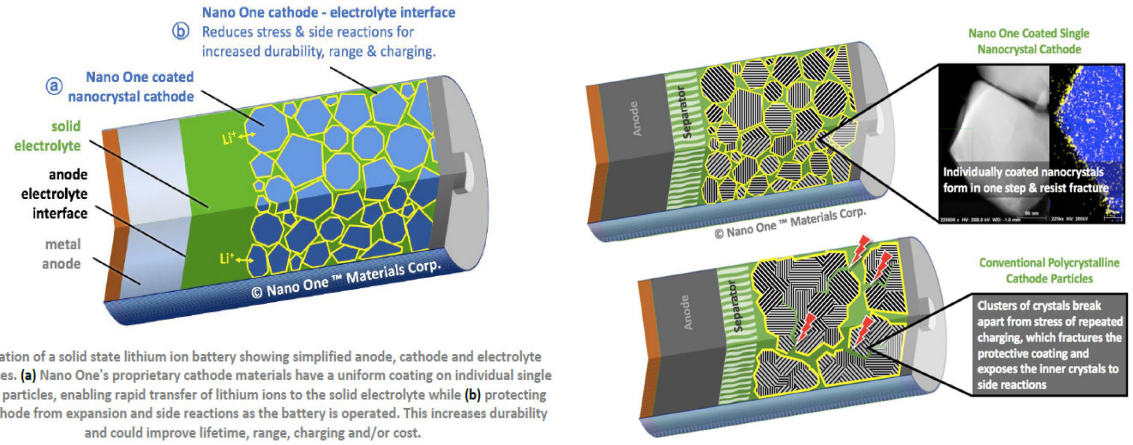



Illustration of a solid state lithium ion battery showing simplified anode, cathode and electrolyte interfaces. **(a)** Nano One's proprietary cathode materials have a uniform coating on individual single crystal particles, enabling rapid transfer of lithium ions to the solid electrolyte while **(b)** protecting the cathode from expansion and side reactions as the battery is operated. This increases durability and could improve lifetime, range, charging and/or cost.

The largest single challenge in solid state batteries is to design a stable and commercially viable interface between the solid electrolyte, of polymer, ceramic or glass composition, and the solid cathode and anode materials on either side of this electrolyte.

The coated LNMO (a.k.a. high voltage spinel (HVS)) stabilizes the interface between cathode and electrolyte because (i) it does not expand and stress the cathode-electrolyte interface like other cathode materials, and (ii) the coating protects the cathode from side-reactions with the electrolyte while allowing the rapid transfer of lithium-ions between the electrolyte and the cathode. In comparison to other cathode materials, HVS is faster charging and operates at higher voltage enabling increased power and energy densities. HVS is also free of cobalt and the associated supply chain risk.

In October 2020, the Company announced a further breakthrough in battery longevity with its cobalt-free high voltage materials which were successfully demonstrated at automotive rates of charge and discharge for over 900 cycles. This demonstration battery uses a low cost, cobalt-free LNM cathode active material made with Nano One's proprietary one-pot process. The breakthrough facilitates the avoidance of rapid capacity fade and premature failure and successfully demonstrates a high voltage lithium ion battery cell with significant cycle life. The enabling technology is Nano One's patented LNM cathode material operating up to 4.7 volts and made using the patented One Pot process. The LNM voltage is 25% higher than commercial lithium ion batteries, improving efficiency, thermal management and power.

*Design Specifications for Commercial Scale Production*

In June 2020, the Company announced completion of an engineering report prepared by Noram Engineering and Constructors of Vancouver, British Columbia detailing enhanced design specifications and improved economics for the commercial scale production of lithium-ion battery cathode materials using Nano One's One-Pot Process. The economics and design specifications in the report relate to the potential for a 4,800 tonne/year manufacturing line for the production of LFP (see "Pulead" within "Strategic Partnerships" above).

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 enhanced budgetary analysis and economic modeling reveal a reduction in equipment and operating expenses from previous estimates which complement raw material cost reductions announced in partnership with Pulead. The engineering specifications and economic modeling in this report enhance the value of Nano One's technology and strengthen Nano One's commercial opportunities with Pulead and other global strategic interests. Further, the report forms an engineering basis for Nano One's other cathode materials, namely NMC and LNMO.

**Business Objectives**

In the near term (one to three years), Nano One will focus on:

- Prototyping and scaling up by expanding its demonstration pilot plant and laboratory facilities to serve technology development, partnership and licensing objectives.
- Building its first commercial plant(s) by advancing partnerships (Pulead, Volkswagen, Asian Cathode Manufacturer) towards licensing agreements, first production pilot and revenues in 2021-2022.
- Third-party validation and partner identification with its joint development partners already in place and more in the queue and targeted throughout the supply chain.

Long term opportunities (three to five years) include:

- Royalty revenues from LFP production with Pulead and others. NMC licensing revenues are expected to follow as coated single crystals proves out. Markets for HVS will be nurtured through the development of advanced high voltage batteries and solid-state batteries with OEMs and anode/electrolyte developer consortiums.
- Commercial expansion via manufacturing adoption of the One-Pot Process, accelerated with differentiation, market growth and updates to non-competitive plants. Revenue expansion is anticipated to flow from scale of clients.
- Access to potential U.S.$25 billion market through ongoing innovation for high margin opportunities in licensing, joint ventures, mergers and acquisition, and supply chain integration. Continuous innovation in battery cathodes would add value and help preserve high margins.

**Intellectual Property**

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.

The Company's 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. See "Intellectual Property Protection" below within "Risks and Uncertainties".

## 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 $ |
|---|---|---|---|
| September 30, 2020 | - | (1,504,365) | (0.02) |
| June 30, 2020 | - | (541,673) | (0.01) |
| March 31, 2020 | - | (1,062,846) | (0.01) |
| 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) | (0.04) |

## DISCUSSION OF OPERATIONS

**For the nine months ended September 30, 2020 and September 30, 2019**

The following table summarizes the Company's results of operations and cash flows for the nine months ended September 30, 2020 and September 30, 2019, (amounts are rounded):

| | **September 30, 2020 $** | September 30, 2019 $ | **Change $** |
|---|---|---|---|
| Revenue | **-** | - | **-** |
| Loss from operating expenses | **(3,160,000)** | (3,277,000) | **117,000** |
| Loss and comprehensive loss | **(3,109,000)** | (3,251,000) | **142,000** |
| | | | |
| Cash provided by (used in) operating activities | **22,000** | (1,415,000) | **1,437,000** |
| Cash used in investing activities | **(1,666,000)** | (81,000) | **(1,585,000)** |
| Cash provided by financing activities | **13,820,000** | 1,080,000 | **12,740,000** |

Certain of the Company's most significant components of operating expenses for the nine months ended September 30, 2020 and September 30, 2019, were as follows:

| | **September 30, 2020 $** | September 30, 2019 $ | **Increase (decrease) (rounded)** |
|---|---|---|---|
| Consulting fees | **339,951** | 36,045 | **304,000** |
| Investor relations and shareholder information | **395,200** | 334,139 | **61,000** |
| Management and directors' fees | **365,000** | 45,000 | **320,000** |
| Professional fees | **251,984** | 187,957 | **64,000** |
| Research (recoveries) expenses, net | **(1,276,789)** | 1,080,066 | **(2,357,000)** |
| Salaries and benefits | **1,004,981** | 598,220 | **407,000** |
| Share-based payments | **1,514,660** | 412,132 | **1,103,000** |

Explanations for the changes illustrated in the table above are as follows:

- Consulting fees: increased due to fees paid to certain capital markets advisors, and the engagement of additional capital markets advisors, industry advisors, and a human resources contractor.
- Management and directors' fees: increased due to a bonus reward paid to a member of key management as well as the recognition of directors' fees effective September 30, 2020, with retroactive application to January 1, 2020 for independent board members only. Additionally, in January 2020 the Company engaged the services of an external CFO and monthly fees are paid to the firm in which the CFO is employed.
- Research (recoveries) expenses: are presented net of government assistance recoveries, and other cost recoveries. Details with respect to research expenses are illustrated in the table below.
- Salaries and benefits: increased as a result of bonus payments and compensation adjustments. Additionally, the Company has increased its research team workforce.
- Share-based payments: increased as a result of the grant of stock options to key management personnel, employees, and consultants during the three months ended September 30, 2020.

Cash flows during the nine months September 30, 2020

The Company generated positive cash flows from operating activities of approximately $22,000 as a result of government assistance proceeds (approximately $3,681,000) exceeding cash-based expenditures within operating expenses.

Cash used in investing activities of approximately $1,666,000 was primarily attributable to the purchase of a $1,000,000 short-term investment (a non-redeemable guaranteed investment certificate bearing interest at 1.50%, per annum) maturing in May 2021, plus deposits and/or purchases of research and development equipment, pilot plant upgrades, and leasehold improvements of approximately $910,000 in aggregate.

Cash provided by financing activities of approximately $13,820,000 was substantially due to the closing of a private placement in February 2020 (see "Share Capital Information") which generated gross proceeds of approximately $11,000,000, and the exercise of stock options and warrants which generated proceeds of approximately $3,566,000. The gross proceeds from the private placement were partially offset by cash share issue costs for finders' fees and legal and regulatory fees of approximately $618,000 in aggregate, and facility lease payments of approximately $127,000 associated with its office and laboratory facilities.

Research (recoveries) expenses for the nine months ended September 30, 2020 and September 30, 2019, were as follows:

| | **September 30, 2020 $** | September 30, 2019 $ | **Change (rounded) $** |
|---|---|---|---|
| Contractors | **134,923** | 90,923 | **44,000** |
| Labour | **1,129,888** | 908,397 | **221,000** |
| Safety and training | **36,494** | 35,857 | **1,000** |
| Supplies | **206,543** | 268,335 | **(62,000)** |
| Utilities | **20,074** | 22,835 | **(3,000)** |
| | **1,527,922** | 1,326,347 | **201,000** |
| Depreciation | **171,590** | 393,575 | **(222,000)** |
| Cost recoveries | **(224,041)** | (87,403) | **(137,000)** |
| Government assistance | **(2,752,260)** | (552,453) | **(2,200,000)** |
| **Research (recoveries) expenses, net** | **(1,276,789)** | 1,080,066 | **(2,358,000)** |

During the nine months ended September 30, 2020, the Company increased spending on research activities by approximately $201,000 relative to the comparative period. Explanations for certain changes resulting in the net increase in spending are as follows:

- Contractors, and labour: increased as a result of hiring additional research team members. As of the MD&A Date, the Company has 30 employees including six PhDs, led by an experienced and proven leadership team with globally recognized advisors in the lithium ion battery supply chain.

## 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:

| **Nature of transaction or balance** | **Nature of relationship** | **Transactions nine months ended September 30, 2020 $** | Transactions nine months ended September 30, 2019 $ | **Balances outstanding September 30, 2020 $** | Balances outstanding December 31, 2019 $ |
|---|---|---|---|---|---|
| Legal fees | (1) | 99,128 | 89,648 | 40,660 | 16,883 |
| Management and directors' fees | (2) | 365,000 | 45,000 | 55,125 | 5,250 |
| Salaries and benefits / Research expenses | Officers (*) | 703,750 | 160,992 | 136,050 | - |
| Share-based payments | Officers/Directors (*) | 1,339,100 | - | - | - |
| Expense reimbursements | Officer | - | - | - | 2,731 |
| | | **2,506,978** | 295,640 | **231,835** | 24,864 |

(*) Salaries and benefits including amounts allocated to research expenses (recoveries) are paid to the Company's CEO (Dan Blondal), CTO (Stephen Campbell), and President (John Lando). Share-based payments includes the value of stock options vested which involve all Directors and Officers of the Company.

(1) Legal fees are incurred with Patent Filing Specialists Inc., a company controlled by an independent director of the Company (Joseph Guy). The transactions incurred during the nine months ended September 30, 2020, are included within professional fees (2019 – professional fees and intangible assets).

(2) Management fees are paid to Bedrock Capital Corp. a company controlled by Paul Matysek, Chairman/Director; and to Donaldson Brohman Martin, CPA Inc. (DBM CPA) where the CFO (Dan Martino) of the Company is employed. Directors' fees are accrued to the Company's two independent directors (Joseph Guy and Lyle Brown).

## LIQUIDITY AND CAPITAL RESOURCES

As at September 30, 2020, the Company had working capital of approximately $12,783,000.

As noted in "Overall Performance" above, the Company's primary sources of liquidity during the nine months ended September 30, 2020, were generated from:

- Closing of a private placement for gross proceeds of $10,999,750 (see "Share Capital Information");
- Exercise of stock options and warrants for total proceeds of $3,566,000; and
- Proceeds from Government assistance programs of approximately $3,681,000 in aggregate, including $3,055,000 from Sustainable Development Technology Canada ("SDTC").

As further described within "Share Capital Information" below, on October 29, 2020, the Company completed a short-form prospectus financing resulting in net proceeds to the Company of $13,386,579.

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 September 30, 2020, is comprised of its components of shareholders' equity. There were no changes to the Company's approach to capital management during the nine months ended September 30, 2020.

The Company currently has no source of revenues, though it receives proceeds from government assistance programs and certain cost recoveries from partners. In order to fund future research activities and pay for operating expenses, 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 continued government assistance programs, financial support and/or contributions of its industry partners, the ability to raise additional financing from equity markets, and the ability to generate future profitable operations.

### Use of Proceeds from Financings

On February 21, 2020, the Company completed a non-brokered private placement for gross proceeds of $10,999,750. The net proceeds of the placement after deducting finders' fees and legal and filing fees of $618,358 were $10,381,392.

On October 29, 2020, the Company completed a short-form prospectus financing for gross proceeds of $14,369,488. The net proceeds of the financing after deducting finders' fees and legal and filing fees of $982,909 were $13,386,579.

For the period from closing its private placement on February 21, 2020 to September 30, 2020, the Company has used the net proceeds as follows:

| **Principal Purposes** | **Use of Proceeds $** |
|---|---|
| Research and development | **1,664,000** |
| Capital equipment purchases and leasehold improvements on laboratory facilities | **44,000** |
| Pilot plant expansion | **-** |
| Intellectual property acquisition | **-** |
| Business development and strategic alternatives | **937,000** |
| Working capital | **1,186,000** |
| Subtotal | **3,831,000** |
| Unallocated | **19,936,971** |
| **Net proceeds of the financings** | **23,767,971** |

## SHARE CAPITAL INFORMATION

Transactions for the issue of share capital during the nine months ended September 30, 2020:

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

  Cash finders' fees totalling $557,221 and legal fees of $61,137, were incurred in respect of the placement. Additionally, the Company issued 467,740 finders' warrants having a fair value of $281,300.

- The Company issued 2,584,898 common shares on the exercise of stock options at prices between $0.25 and $1.57 per share, for proceeds of $979,145.

- The Company issued 1,616,600 common shares on the exercise of warrants at a price of $1.60 per share, for proceeds of $2,586,560.

Transactions for the issue of share capital subsequent to September 30, 2020 and to the MD&A Date:

- In October 2020, the Company issued 30,250 common shares on the exercise of stock options at a weighted average price of approximately $0.69 per share, for proceeds of $20,743.

- In October 2020, the Company issued 327,875 common shares on the exercise of warrants at a price of $1.60 per share, for proceeds of $524,600.

- On October 29, 2020, the Company completed a short-form prospectus financing consisting of the issue of 5,282,900 units at a price of $2.72 per unit for gross proceeds of $14,369,488. Each unit consists one common share and one-half of a common share purchase warrant with each whole warrant exercisable into one common share at an exercise price of $3.55 until October 29, 2022.

  Cash finders' fees totalling $862,169 and other fees of $120,740, have been incurred to the MD&A Date in respect of the financing resulting in net proceeds to the Company of $13,386,579 upon closing. Additionally, the Company issued 422,632 finders' warrants exercisable at $2.72 each until October 29, 2022, as well as 79,242 common shares to the finders as a corporate finance fee.

## 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 the MD&A Date, there were 86,676,567 common shares issued and outstanding.

Stock options

As at the MD&A Date, the Company has 4,638,027 stock options outstanding and exercisable with a weighted average exercise price of $1.66 per share.

Warrants

As at the MD&A Date, the Company has 7,013,347 warrants issued and outstanding with a weighted average exercise price of $2.40 per share. 3,949,265 of the warrants issued and outstanding have a weighted average exercise price of $1.60.

## 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.

## 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 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 as well as the fair value measurements of the Company's financial instruments are included in the Company's unaudited condensed interim financial statements for the nine months ended September 30, 2020, within Note 11.

## OFF-BALANCE SHEET ARRANGEMENTS

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

## PROPOSED TRANSACTIONS

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

## CHANGES IN ACCOUNTING POLICIES INCLUDING INITIAL ADOPTION

During the nine months ended September 30, 2020, there were no changes to the Company's significant accounting policies, nor any new accounting policies adopted.

## 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 (COVID-19)

In March 2020, the World Health Organization declared the outbreak of 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 or on the Company's industry partners who provide in-kind and/or financial contributions to the Company's government programs. There are travel restrictions and health and safety concerns that may delay the Company's research activities. Operations depend on safeguarding all personnel during the outbreak, which may be prohibitive in certain aspects. Nonetheless, the Company has implemented prevention measures at its office and laboratory facilities including the facilitation of remote work programs. Various Government wage and loan subsidies are available to qualified companies to assist them with operating costs during the pandemic, and the various programs are constantly being expanded and relaxed, which may qualify the Company for additional assistance.

### 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. 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. 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 of 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.

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.

**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 or other industries. The Company's current facility hosts a pilot plant and laboratory 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.

**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.

**Execution of 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.

Currently, the Company has no history of profitable operations or material revenue. As such, the Company is subject to many risks including under-capitalization, cash shortages, and limitations with respect to personnel, financial, and other resources.

**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.

**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 jurisdictions where laws or law enforcement practices may not protect proprietary rights as fully as in Canada or the United States.

**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.

## 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, as required. 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 workload 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 MD&A and the financial statements is the responsibility of management. In the preparation of the financial statements, estimates are sometimes necessary to make a determination of the carrying value for certain assets or liabilities. Management believes such estimates have been based on careful judgments and have been properly reflected in the 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.