

Nano One Materials Corp.

Management's Discussion & Analysis

For the year ended

December 31, 2023



MANAGEMENT'S DISCUSSION & ANALYSIS ("MD&A") FOR THE YEAR ENDED DECEMBER 31, 2023

The following Management's Discussion & Analysis ("MD&A") of Nano One® Materials Corp. ("Nano One", "we", "our", the "Company") for the year ended December 31, 2023, should be read in conjunction with our audited annual consolidated financial statements for the year ended December 31, 2023 (the "financial statements"), and related notes thereto. The financial statements have been prepared in accordance with IFRS Accounting Standards as issued by the International Accounting Standards Board ("IASB"). All monetary amounts in this MD&A are expressed in Canadian dollars, unless otherwise indicated. The information contained herein is presented as at **March 27, 2024** (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 our 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. The Board of Directors has approved the disclosure contained in this MD&A.

Continuous disclosure documents including our most recent Annual Information Form ("AIF"), annual M&DA, and audited consolidated financial statements, are filed with Canadian securities regulatory authorities on SEDAR+ (www.sedarplus.ca) and on our website at www.nanoone.ca.

Abbreviations

CAM	Cathode Active Material	LFP	Lithium Iron Phosphate
ESS	Energy Storage Solutions	LNMO	Lithium Nickel Manganese Oxide
FEL	Front-End Loading	M	Million or millions
GHG	Greenhouse Gas Emissions	M2CAM	Metal to Cathode Active Material
ICFR	Internal Controls over Financial Reporting	NMC	Lithium Nickel Manganese Cobalt
IRA	Inflation Reduction Act	OEM	Original Equipment Manufacturer
JDA	Joint Development Agreement	PCAM	Precursor Cathode Active Material
		tpa	Tonnes Per Annum

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 using forward-looking terminology such as "believe", "expect", "plan", "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", "should" or "will" happen, or by discussions of strategy. Forward-looking statements include estimates, plans, expectations, opinions, forecasts, projections, targets, guidance, goals, 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 Company's ability to access capital and government grants; access to skilled labour, permits, and provincial and municipal utilities; operating and capital costs; the Company's business plans and strategies; requirements for additional capital and future financing; estimated future working capital, funds available, and uses of funds, and future capital expenditures and other expenses for specific operations; intellectual property protection; industry demand; ability to obtain employees, consultants or advisors with specialized skills and knowledge; anticipated joint development programs; incurrence of costs; competitive conditions; general economic conditions; the intention to grow the business, operations, revenues and potential activities of the Company; the functions and intended benefits of Nano One's technology and products; the development of the Company's technology, supply chain and products; commercialization plans; current and future collaboration, engineering, and optimization projects; plans for construction; scale-up and operation of a pilot plant, demonstration plant, and commercial plant; the Company's research and development programs; collaboration with materials producers; the Company's short- and long-term business objectives and milestones and the events that must occur to accomplish them; prospective strategic partnerships and the anticipated benefits of those partnerships; the Company's licensing, supply chain, and potential royalty arrangements; the purpose for expanding the Company's facilities; and scalability of developed technology. 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.

INDEX

2 Business Overview

- 2 Our Technology and Intellectual Property
- 3 Key Business Developments

5 2024 Objectives and Commercialization Updates

- 5 Commercial Plans
- 6 Commercial Agreements

6 Review of Financial Results

- 6 Q4 2023 compared to Q3 2023
- 7 Q4 2023 compared to Q4 2022
- 7 Year ended 2023 compared to 2022

8 Review of Financial Condition

- 8 Summary Financial Position and Key Metrics
- 9 Review of Cash Inflows
- 10 Summary of Cash Flows
- 12 Capital Management
- 12 Capital Sources
- 13 Shareholders' Equity

- 14 Contractual Obligations
- 14 Summary of Quarterly Results
- 15 Transactions Between Related Parties
- 15 Accounting Estimates, Judgments and Standards
 - 15 Key Estimates and Judgments
 - 16 New Standards
- 16 Change in Executive Officers
- 17 Risks and Uncertainties
- 17 Disclosure Controls and Procedures and ICFR
- 17 Responsibility for Financial Statements

BUSINESS OVERVIEW

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

The Company has developed, patented, and is scaling up an innovative One-Pot process to produce CAM for lithium-ion battery applications in electric vehicles, energy storage systems, and consumer electronics. Nano One has proven its technology in the laboratory, at various pilot scales ranging from 1 to 200 tpa and demonstrated it using full scale commercial equipment. The Company is partnering with key automotive OEMs, cell manufacturers, cathode manufacturers and the upstream miners and refiners. The acquisition and conversion of the Candiac facility in Québec to the One-Pot process has accelerated the Company's path to commercialization. Trials conducted in 2023 using the One-Pot process in the existing commercial scale reactors have successfully de-risked the production of LFP at full scale with performance results consistent to lab scale. This advancement has enabled commercial scale LFP samples to be sent to qualified customers in Q1 2024 for the purposes of evaluation, validation and entering into potential binding offtake agreements.

The Company began operating a 200 tpa LFP pilot plant ("pilot plant") in Candiac, Québec in Q4 2023 and has commenced a feasibility (FEL 3) study for a 25,000 tpa LFP commercial plant. On December 19, 2023, we announced orders are confirmed from our pilot plant for LFP samples for the purposes of commercial evaluation and collaboration with potential future buyers of our LFP CAM.

Our Technology and Intellectual Property

One-Pot Process and M2CAM® Technologies

Nano One's patented One-Pot process is engineered to make cathode materials directly from non-sulfate forms of battery metals. This eliminates the need for intermediate metal sulphates, all sodium sulphate by-product, and all wastewater, which avoids permitting obstacles in jurisdictions with strict environmental regulations such as Canada, USA, and Europe. The waste streams avoided can amount to three times the product stream, and the One-Pot process simplifications also



reduces operating costs, capital equipment costs and GHG emissions. Furthermore, the process uses lithium feedstock in the form of carbonate rather than hydroxide, which is costly, corrosive and harder-to-handle.

Nano One's M2CAM technology aims to reduce cost, waste, logistics and the carbon footprint in the lithium-ion battery supply chain.

Nano One's patented One-Pot process forms durable single crystal cathode powders and protective coatings simultaneously and the process has been adapted for M2CAM, enabling these materials to be made directly from nickel, manganese, and cobalt metal powder feedstocks rather than metal sulfates or other salt powders. Metal powders are one-fifth of the weight of metal sulfates, avoiding the added costs, energy, and environmental impact of converting to sulfate and shipping and handling of waste.

Life Cycle Assessment (LCA)

On December 6, 2023, we announced the results of a third-party LCA report which showed that its One-Pot process could cut GHG emissions by up to 60% for NMC811 CAM, and up to 50% for LFP CAM, and significantly reduce water use for both CAMs when benchmarked against the complexity and energy intensity of conventional CAM processes operating in various jurisdictions. These environmental improvements are augmented by the other benefits of the One-Pot process including reduced cost, complexity, and dependency on foreign supply chains of concern.

Intellectual Property

Nano One continues to expand patent coverage of our proprietary technology as further detailed in press releases dated most recently on February 21, 2024, and July 20, 2023. We now have thirty-nine (39) patents which have been granted or approved across the globe. We also have many pending patent applications throughout the world.

On February 21, 2024, we announced the expansion of our patent portfolio with new patents bringing additional patent protections over the One-Pot process single crystal coating and M2CAM.

The intellectual property was developed and is wholly owned by Nano One. We have filed other patent applications and may file additional patents later to further strengthen our intellectual property and technology going forward, although no assurances can be given that we will succeed in such endeavours.

Patents, trade secret, flowsheets, knowhow, plant design and people are at the core of what Nano One's partners, shareholders, and prospective customers value. Not only are these intellectual property assets critical to our leadership position, but they have also enabled us to pilot LFP using our technology and demonstrate at scales that are relevant to the automotive industry. When bundled with detailed engineering plans, innovative supply chains, and performance targets, we believe our technology could be widely licensed for a new generation of sustainable and cost-effective cathode production that is cleaner, more easily permitted and securely established in North America, Europe, and the Indo-Pacific region.

Key Business Developments

2023 Milestones

During fiscal 2023, we made significant achievements after the first full year of ownership of the Candiac LFP production facility. We recommissioned the Candiac facility to test and pilot the One-Pot process in commercial scale equipment to produce LFP. These activities have showcased the patented One-Pot process working at commercial scale, attracted investment partners, and have positioned Nano One to commercialize its cost competitive, environmentally superior CAM manufacturing technology to supply LFP cathode materials for the emerging market in LFP batteries via production, licensing, and joint venture opportunities. 2023 achievements include:

- Awarded \$10M in grant funds from SDTC.
- Successfully completed evaluations with global OEM and expanded collaboration to include LFP.
- Laid out commercialization plans for LFP and other materials.
- Signed JDA with Our Next Energy("ONE") to collaborate on the validation, qualification, and production of a North American supply of LFP CAM.
- Demonstrated, de-risked and fast-tracked tonne scale sampling of One-Pot LFP.
- Secured \$17M investment and collaboration with Sumitomo Metal Mining.
- Completed pre-feasibility study (FEL 2) of a 12,500 tpa LFP production line.



- Showcased LCA study with 50% fewer GHGs and 80% less water.
- Preliminary OEM evaluation of Nano One LFP successful, kicking off tonne-scale evaluations.

Collaboration Agreement with Sumitomo Metal Mining

On October 5, 2023 (as announced on September 25, 2023), Nano One and Sumitomo Metal Mining Co., Ltd. ("SMM", together with Nano One, the "Companies") closed a transaction whereby the Companies agreed to a strategic equity investment in Nano One by SMM of approximately \$17,000,000 and entered into a Collaboration Agreement under which the Companies will work together to accelerate the commercial production of LFP, CAM and nickel-rich CAM chemistries, such as NMC. SMM is a leading vertically integrated miner, refiner, and producer of CAM. Nano One is using the proceeds on its One-Pot 200 tpa LFP pilot plant, piloting activities, and for working capital purposes.

SMM and Nano One also entered into a Collaboration Agreement that encompasses various aspects primarily centred on supporting the development of battery ecosystems, with a particular focus on LFP and NMC production using the One-Pot process. The collaboration will support technical product optimization for both LFP and NMC, as well as efforts to mitigate supply chain risks. These joint efforts are intended to strengthen and progress the development, design, construction, and operation of Nano One's 200 tpa LFP pilot plant, future piloting of other CAM formulations, and a future 25,000 tpa LFP commercial plant.

Further, the Companies will jointly explore business development opportunities, including future sales and technology licensing. The Companies intend to exchange relevant market information and technical expertise to improve the quality and cost of CAM produced by the One-Pot process at our facilities to meet SMM customer requirement. SMM is the first CAM producing investor in Nano One. SMM's investment builds on past investments in Nano One from mining companies and governments and could accelerate LFP adoption, demand, and business opportunities for the Companies.

Joint Development Agreement with Our Next Energy (ONE)

On June 14, 2023, we announced a JDA with ONE to collaborate on the validation, qualification, and production of LFP CAM produced at Nano One's 200 tpa LFP pilot plant for validation in ONE's production LFP cells used in its Aries and Gemini batteries, with the goal of a binding offtake agreement and expansion into future production facilities.

Successful Completion of Phase Two of Co-Development Agreement with CBMM

On May 17, 2023, the Company announced the successful completion of phase two of the co-development work with CBMM demonstrating enhanced durability of high nickel NMC CAM when coated with CBMM's niobium using Nano One's One-Pot process and M2CAM technology.

Completion of Cathode Evaluation Project & Expansion of Collaboration with Automotive OEM

On February 21, 2023, we announced the successful evaluation and benchmarking of our process, CAM, and technoeconomic modelling, under a Cathode Evaluation Agreement with a global automotive OEM. Success has led us to a new Cathode Evaluation Agreement that adds LFP to the program and expands the collaboration to target performance, cost, and environmental specifications of CAM to meet the needs of the OEM. The parties jointly evaluated Nano One's NMC CAM for use in automotive lithium-ion batteries and demonstrated significant potential to reduce environmental footprint, capital costs and operating costs while meeting performance criteria.

The successful outcome of this initial evaluation project has led to Nano One and the OEM entering a new phase of collaboration and a second Cathode Evaluation Agreement.

New program funding from SDTC and completion of previous SDTC project

On February 13, 2023, we announced an award of up to \$10,000,000 in non-dilutive, non-repayable contributions from SDTC. This project named, "Pre-Commercial Trial and Multi Cathode Piloting Hub", will be multi-phase, multi-year, and milestone driven. This follows our two previously successful projects with SDTC. These funds support the conversion of Nano One's Candiac facility to the patented One-Pot process for industrial-scale pilot production of LFP and include financial support to advance Nano One's One-Pot and metal-direct-to-CAM (M2CAM) processes for the industrial scale pilot production of next-gen LFP, NMC and LNM cathode active materials (CAM).



2024 OBJECTIVES AND COMMERCIALIZATION UPDATES

We remain capitalized and are seeking to maximize opportunities to secure support from governments. A 25,000 tpa LFP commercial plant will require completion of the FEL 3 (see below), product validation and customer offtake, and feedstock supply agreements. These three items are fundamental for project financing and are a top priority for Nano One in 2024.

We are in active dialogue with government agencies, project finance lenders, and strategic partners to secure funding for both growth activities, a commercial LFP plant, and ongoing innovations. A final investment decision will only be made following the securing of plant-specific funding.

We are focused on meeting market demand while harnessing government support. It is our intention to use the Candiac facility as an industrial production scale LFP pilot facility that supports the design, engineering, and construction of our first commercial LFP plant. This plant will have at least one production line and will serve as a blueprint for turn-key multi-line production facilities under a hybrid business model that includes licensing, joint venture and independent production in Canada, USA, Europe, Indo-Pacific region, and other emerging battery jurisdictions. This strategy is aimed at serving outsized demand from the energy storage, mobility, and electric vehicle markets.

Site Selection and Government Incentives

As an integral part of the feasibility study, dialogue with governments and their agencies is focused on key factors that impact our ability to scale-up rapidly and meet market demands. We have determined that it is in our best interests to consider a broader set of site options that may be more suitable for future growth expansion beyond a 25,000 tpa LFP commercial plant. Key considerations include government incentives in the form of grants and forgivable loans, access to sufficient utilities (power, water, natural gas) and location preferences from collaborating stakeholders. With the support of provincial and municipal governments we have identified potential site options in Québec and Ontario. We remain in active discussions with governments at all levels, and other strategic partners to narrow down site selection. We are closely monitoring government incentive programs in North America and have been engaged in conversations with several levels of government to ensure that we can align our business plans and scale-up to meet emerging market needs in North America.

Commercial Plans

After having commissioned our 200 tpa LFP pilot plant in Q4 2023, our commercial plans include constructing a 25,000 tpa LFP commercial plant, with the possibility of expanding the existing 200 tpa LFP pilot plant into a demonstration plant with a capacity of up to 2,000 tpa. We have significantly de-risked our capacity to scale and have confirmed orders for tonne-scale sample evaluations (see below). Our goal is to launch LFP in North America, followed by Europe and the Indo-Pacific region. Expanding our pilot plant up to a 2,000 tpa demonstration plant is contingent on initial sales commitments, customer technology validation, capital support from government, and financial returns. Through to December 31, 2023, we have incurred approximately \$200,000 (incurred in Q4 2023), in engineering and planning costs related to this potential expansion.

Feasibility Study (FEL 3) and Pre-Feasibility Study (FEL 2)

On February 27, 2024, we announced the commencement of a feasibility study (FEL 3) for a 25,000 tpa LFP commercial plant to support securing customer offtake, feedstock supply, and future project funding. The plant design will form the basis of Nano One's turn-key Design-Once-Build-Many strategy to address the broader LFP market. The FEL 3 study will provide an optimal production line layout and maximum utility of key equipment. Furthermore, this study will address Nano One's mid-to-longer-term objective of deploying multi-line facilities under license or joint venture with partners in Asian, Indo-Pacific, North American and European jurisdictions. Progress at Nano One's pilot plant has helped de-risk, improve, and optimize the One-Pot process for LFP in commercial scale equipment while informing engineering plans and providing confidence to collaborators on the long-term competitive viability of Nano One's CAM production technology.

On October 23, 2023, we announced the completion of a FEL 2 pre-feasibility study which estimates that the optimal capacity for a One-Pot LFP production line is 12,500 tpa and that two such lines (25,000 tpa LFP commercial plant) could be built at our site in Candiac, Québec, making it significantly more efficient in size, footprint, and capital cost than other commercial methods of making LFP.

Through to December 31, 2023, Nano One had cumulatively incurred on a cash-basis approximately \$8,000,000 in converting and commissioning the One-Pot 200 tpa LFP pilot plant. Of this amount, approximately \$7,000,000 was paid as at and during the year ended December 31, 2023. These costs are largely aligned with budgets and expectations, as well as the timing for commissioning of the 200 tpa LFP pilot plant which completed and was commissioned in Q4 2023.

We have currently engaged engineering services for the abovementioned FEL 3 study to which no amounts had been paid through to December 31, 2023, in relation to the 25,000 tpa LFP commercial plant.



Commercial Agreements

We confirmed orders for approximately 1.3 tonnes of LFP samples made from our pilot plant for the purposes of commercial evaluation and collaboration (as announced on December 19, 2023). Additional key collaborators in automotive, energy storage systems, defence, and industrial sectors are also testing and validating our LFP for the purposes of securing offtake agreements. Sample evaluation thus far has generated significant interest in validating our LFP at scale for future offtake agreements.

REVIEW OF FINANCIAL RESULTS

We report operating results in a single operating segment being the research, scale-up, and piloting of a patented process for future commercial production of CAM for lithium-ion battery applications.

Q4 2023 compared to Q3 2023

Q4 2023 Compared to Q3 2023			
	December 31,	September 30,	
	2023	2023	Change
Three months ended	\$	\$	\$
Expenses			
Amortization	894	812	82
Business development and investor relations	150,130	158,830	(8,700)
Depreciation	77,365	56,948	20,417
Finance costs	52,465	56,223	(3,758)
General and administrative expenses	708,883	512,959	195,924
Professional and consulting, net	806,152	664,024	142,128
Research and operational expenses, net	2,414,333	1,955,350	458,983
Share-based payments	674,211	404,441	269,770
Wages, benefits and fees, net	4,129,147	3,771,933	357,214
Loss from operating expenses	(9,013,580)	(7,581,520)	(1,432,060)
Interest income	512,812	321,726	191,086
Loss on disposal of equipment	(247,624)	(42,851)	(204,773)
Loss and comprehensive loss	(8,748,392)	(7,302,645)	(1,445,747)

- Research and operational expenses increased due to the focus on completing the FEL 2 pre-feasibility study on a single commercial line (October 2023), the Life Cycle Assessment (December 2023), as well as initiating customer evaluations of LFP samples.
- Wages, benefits and fees increased as a result of additional personnel hiring and recognizing an accrual in the fourth quarter for unused employee vacation carry forward amounts.
- Share-based payments (non-cash expense) increased due to the October 2023 grant of DSUs.
- General and administrative expenses increased due to the continuous growth of operations particularly with travel
 and related costs increasing and the renewal of insurance policies in November 2023 at higher premiums than the
 previous year.
- Professional and consulting increased due to investments in informational and operational technology services and contract support.



Q4 2023 compared to Q4 2022

	December 31, 2023	December 31, 2022	Change
Three months ended	\$	\$	\$
Expenses			
Amortization	894	830	64
Business development and investor relations	150,130	68,099	82,031
Depreciation	77,365	59,957	17,408
Finance costs	52,465	17,512	34,953
General and administrative expenses	708,883	534,385	174,498
Professional and consulting, net	806,152	302,962	503,190
Research and operational expenses, net	2,414,333	957,122	1,457,211
Share-based payments	674,211	419,785	254,426
Wages, benefits and fees, net	4,129,147	3,069,644	1,059,503
Loss from operating expenses	(9,013,580)	(5,430,296)	(3,583,284)
Interest income	512,812	344,374	168,438
Loss on disposal of equipment	(247,624)	(4,349)	(243,275)
Loss and comprehensive loss	(8,748,392)	(5,090,271)	(3,658,121)

All components of operating expenses increased during Q4 2023 compared to Q4 2022 as the entirety of 2023 included the operations of our Candiac subsidiary, whereas 2022 only included two months of consolidated activity (November and December 2022). Further causes for increases in operating expenses are largely aligned and correlated with the factors discussed herein in terms of increased operating activity, personnel expansion and hiring and the resulting increased general overheads of the business operating in multiple locations in 2023. Additional leased facilities in 2023 compared to 2022 also drives higher finance costs. Additionally, the October 2023 grant of DSUs is driving a higher share-based payment expense for 2023.

Year ended 2023 compared to 2022

Years ended	December 31, 2023 \$	December 31, 2022 \$	Change \$
Expenses			
Amortization	3,007	2,410	597
Business development and investor relations	661,807	625,831	35,976
Depreciation	254,052	171,621	82,431
Finance costs	160,332	66,772	93,560
General and administrative expenses	2,509,027	1,415,160	1,093,867
Professional and consulting, net	2,719,748	1,542,005	1,177,743
Research and operational expenses, net	8,369,064	3,252,665	5,116,399
Share-based payments	1,745,926	1,745,697	229
Wages, benefits and fees, net	16,745,071	7,918,555	8,826,516
Loss from operating expenses	(33,168,034)	(16,740,716)	(16,427,318)
Interest income	1,654,412	924,301	730,111
Loss on disposal of equipment	(301,261)	(4,349)	(296,912)
Loss and comprehensive loss	(31,814,883)	(15,820,764)	(15,994,119)

- Operating expenses in aggregate were significantly higher in 2023 mainly because the comparative 2022 period included only two months of operations consolidated with the Candiac subsidiary for approximately \$2,300,000 in operating expenses compared to approximately \$13,000,000 in operating expenses incurred in the Candiac subsidiary during the year ended December 31, 2023.
- Wages, benefits and fees grew due to continuous personnel expansion throughout the year as we grew the
 workforce in various positions and roles at each location. The personnel expansion aligns with our strategy and
 pathway towards pre-commercial development and future commercialization. Additionally, the amount of
 government proceeds applied as a partial offset to wages, benefits and fees was greater during the 2022 comparative
 year which contributes to the increase presented for 2023.
- Research and operational expenses were higher due to contracted services to support operational growth in scaleup, innovation, piloting, and pre-commercial efforts including de-risking and completing tonne scale sampling of LFP



for customer validation. The increase is also attributable to engineering services and studies (FEL 2 pre-feasibility study completed in 2023). Moreover, significant accomplishments were achieved in research such as the Life Cycle Assessment (December 2023), and as well as costs associated with scale-up and One-Pot process capacity trials on the 200 tpa LFP pilot plant (September 2023). Other drivers include OEM evaluation completion and collaboration, commercial planning, new JDA agreements, customer LFP sample validations, and initial costs relating to the FEL 3 feasibility study.

- Professional and consulting fees increased due to investments in informational and operational technology and processes, applications/tools, software, and services. We continue to expand our patent portfolio (see "Intellectual Property" above) accordingly patent legal fees have increased.
- General and administrative expenses also increased in direct correlation with our overall growth and expansion
 representing overhead increases including expanded insurance policies and premiums, travel increases for
 personnel between operating locations, increased corporate finance and business development initiatives, significant
 growth in informational technology products and tools, and general overhead from an increased workforce and
 additional office and research facilities leased (February 2023).
- Interest income was higher in 2023 due to higher interest received on our cash balances resulting from an increase in market interest rates.

REVIEW OF FINANCIAL CONDITION

Summary Financial Position and Key Metrics

	December 31,	December 31,	December 31,
	2023	2022	2021
	\$	\$	\$
Cash and cash equivalents	31,868,882	39,445,395	52,652,258
Restricted cash	575,000	-	-
Current assets (all others)	1,835,321	3,182,564	697,182
Non-current assets	18,695,565	13,448,401	2,008,457
Total assets	52,974,768	56,076,360	55,357,897
Current liabilities	4,143,968	2,039,869	946,736
Non-current liabilities (lease liabilities)	1,344,144	587,122	656,190
Total liabilities	5,488,112	2,626,991	1,602,926
Total shareholders' equity	47,486,656	53,449,369	53,754,971
Key Financial Metrics:			
Working capital ¹	30,135,235	40,588,090	52,402,704
Liquid assets ²	28,691,624	38,891,919	52,117,007

¹ Represents current assets (including cash and cash equivalents and restricted cash) minus current liabilities ² Represents working capital minus prepaid expenses and inventory

Total assets have substantially been comprised of cash and cash equivalents over the last three fiscal years with a net decrease in cash and cash equivalents each year. Further, property, plant and equipment have increased year to year with the acquisition of JMBM (in 2022) and capital expenditures on expanding research activity, additional capitalized facility leases, and expenditures on the 200 tpa pilot line in Candiac (in 2023).

The increase in total assets for 2022 was attributable to the increase in receivables and prepayments, the inaugural recognition of inventory, and the increase in property, plant and equipment exceeding the use of cash and cash equivalents. Trade and other payables are routine in nature and grew through the acquisition of JMBM Canada. For 2023, the decrease in total assets was attributable to decreases in cash and cash equivalents, and receivables and prepayments exceeding the increases in property, plant and equipment and inventory.

Total liabilities increased as we leased additional office and research facilities starting in February 2023, and renewed leases on our facilities during 2023. Additionally, payables increased in the normal course of business as the level of operating and investing expenditures have increased in alignment with our growth. Working capital has decreased in direct correlation to the use of cash in operating and investing activities.



Review of Cash Inflows

	Three months ended	Three months ended	Year ended	Year ended
	December 31,	September 30,	December 31,	December 31,
	2023	2023	2023	2022
	\$	\$	\$	\$
Sources of cash and cash equivalents:				
Government programs (operating and investing activities)	14,000	884,000	4,294,000	2,152,000
Interest income (investing activities)	512,000	322,000	1,654,000	924,000
Cost recoveries from strategic partners (operating activities)	-	-	162,000	402,000
Private placement, net (financing activities)	16,843,000	-	16,843,000	12,502,000
Exercises of stock options and warrants (financing activities)	134,000	352,000	7,263,000	672,000
	17,503,000	1,558,000	30,216,000	16,652,000

Q4 2023 compared to Q3 2023

Government programs: Nominal amounts were received in Q4 2023 related to wage reimbursements for internships and other qualified employment positions either relating to NRC-IRAP or other programs, whereas in Q3 2023 we received similar grants over and above the holdback amount of approximately \$800,000 from SDTC on the previously completed grant program.

Private placement: Represents the strategic investment made by Sumitomo (see below).

Options and warrants exercised: In Q4 2023, 2,300,000 options were exercised substantially on a net exercise basis where no cash is received. A portion of these options were exercised for cash proceeds at \$1.28 per share. In Q3 2023, 113,375 options were exercised entirely for cash proceeds within the same price range.

Year ended 2023 compared to 2022

Government programs: 2023 amounts are largely comprised of the release of the SDTC holdback on the previous project (\$800,000) over and above the SDTC Milestone 1 grant (\$3,300,000) with remaining amounts relating to NRC-IRAP and other non-repayable grants relating to employment and wage reimbursements. During 2022, proceeds from government programs similarly included an SDTC milestone payment on the previous program (\$1,800,000), plus NRC-IRAP amounts.

Cost recoveries: In 2023 amounts were received from CBMM compared to 2022 amounts received from CBMM and other partners which generated higher recoveries in 2022.

Private placement: Nearly \$17,000,000 was received in October 2023 representing the strategic equity investment made by Sumitomo, in comparison to the 2022 private placement of approximately \$12,500,000 completed in June 2022 which represented the strategic equity investment by Rio Tinto.

Options and warrants exercised: Between January and February 2023, warrants were exercised generating proceeds of approximately \$3,651,000 (2,281,939 warrants at \$1.60 each). Additionally in 2023, 3,955,321 stock options were exercised at a weighted average price of \$1.70 each with approximately \$2,900,000 worth exercised on a net exercise basis (\$nil proceeds), leaving approximately \$3,800,000 in proceeds received from exercises. This compares to a much lower volume and value of both warrants and stock options that were exercised during 2022 for proceeds of approximately \$672,000.



Summary of Cash Flows

Q4 2023 compared to Q3 2023

	December 31,	September 30,	
	2023	2023	Change
Three months ended	\$	\$	\$
Operating activities			
Loss for the year	(8,748,392)	(7,302,645)	(1,445,747)
Adjustments for non-cash items	1,422,362	879,508	542,854
Interest income (to investing activities)	(512,812)	(321,726)	(191,086)
Net change in non-cash working capital items	(1,197,645)	(176,369)	(1,021,276)
	(9,036,487)	(6,921,232)	(2,115,255)
Investing activities			
Interest income	512,812	321,726	191,086
Capital expenditures ¹	(1,857,046)	(2,041,906)	184,860
Purchase of standby letter of credit (restricted cash)	(575,000)	·	(575,000
	(1,919,234)	(1,720,180)	(199,054)
Financing activities			
Equity financing and exercises of options and warrants, net	16,977,522	351,477	16,626,045
Payments for facility leases	(154,822)	(111,299)	(43,523)
	16,822,700	240,178	16,582,522
Change in cash and cash equivalents	5,866,979	(8,401,234)	14,268,213
Cash and cash equivalents, beginning	26,001,903	34,403,137	
Cash and cash equivalents, ending	31,868,882	26,001,903	

Capital expenditures includes purchases of equipment, deposits, and payments for intangible assets.

Engineering costs and FEL 2 and FEL 3 studies are included within operating activities.

	December 31,	September 30,
	2023	2023
Allocation of cash inflows from government assistance and cost recoveries	\$	\$
Operating activities	242,803	957,131
Investing activities	504,302	738,668
	747,105	1,695,799

The increased use of cash in operations which correlates with ongoing organizational growth and achievements realized in research and operational activities, coupled with a greater net use of cash in working capital items to pay down accounts payable, were contributors to the increase in cash used in operating activities. Higher market rates of interest contributed to higher interest earnings on cash balances. The decrease in capital expenditures is within normal course fluctuations of business and timing of expenditures. Notably, we were required to obtain a standby letter or credit during the quarter in relation to securing engineering services for the FEL 3 study.

The equity financing completed with Sumitomo generated net proceeds after costs relating to the financing of approximately \$16,843,000. Q4 2023 proceeds from exercises of stock options was approximately \$237,000. In Q4 2023, renewals of certain facility leases commenced at higher monthly rates than previous lease terms.



Year ended	2023	compared to	2022
i cai cilucu	2020	combarca to	2022

'	December 31,	December 31,	
	2023	2022	Change
Year ended	\$	\$	\$
One wating a ctivities			
Operating activities	(24.044.002)	(45.000.704)	(45 004 440)
Loss for the year	(31,814,883)	(15,820,764)	, , ,
Adjustments for non-cash items	3,713,919	3,463,278	250,641
Interest income (to investing activities)	(1,654,412)	(924,301)	(730,111)
Net change in non-cash working capital items	2,696,323	3,920,901	(1,224,578)
	(27,059,053)	(9,360,886)	(17,698,167)
Investing activities			
Interestincome	1,654,412	924,301	730,111
Acquisition of Johnson Matthey Battery Materials Ltd., net	-	(16,173,351)	16,173,351
Capital expenditures ¹	(5,246,115)	(1,551,607)	(3,694,508)
Purchase of standby letter of credit (restricted cash)	(575,000)	-	(575,000)
	(4,166,703)	(16,800,657)	12,633,954
Financing activities			
Equity financing and exercises of options and warrants, net	24,106,244	13,174,465	10,931,779
Payments for facility leases	(457,001)	(219,785)	
,	23,649,243	12,954,680	10,694,563
Change in cash and cash equivalents	(7,576,513)	(13,206,863)	5,630,350
Cash and cash equivalents, beginning of year	39,445,395	52,652,258	
Cash and cash equivalents, end of year	31,868,882	39,445,395	

¹ Capital expenditures includes purchases equipment, deposits, and payments for intangible assets. Engineering costs and FEL 2 and FEL 3 studies are included within operating activities.

	December 31,	December 31,	
	2023	2022	
Allocation of cash inflows from government assistance and cost recoveries	\$	\$	
Operating activities	2,229,613	2,536,703	
Investing activities	2,217,832	181,451	
	4,447,445	2,718,154	

Last year's acquisition of Johnson Matthey Battery Materials Ltd. on November 1, 2022, was for cash consideration of \$10,250,000, plus working capital items totalling \$5,750,000, and transaction costs (legal fees) of approximately \$350,000, for aggregate consideration of approximately \$16,350,000. Exclusive of this transaction, cash used in investing activities for 2022 was approximately \$448,000. The increase for 2023 is primarily attributable to investment in the One-Pot process conversion and resulting 200 tpa LFP pilot plant which was commissioned in Q4 2023.

The 2023 increase in capital expenditures primarily relates to the completion of the conversion to the One-Pot process and the resulting commissioning of the 200 tpa LFP pilot plant in addition to acquiring new equipment and machinery for research and innovation, scale-up, production trials, and commissioning.



Capital management

Our capital structure consists of the various components of shareholders' equity. When managing capital, we ensure our ability to continue as a going concern involves having sufficient capital to deploy on new and existing projects including commercialization objectives while generating returns on any excess funds and maintaining liquidity/accessibility to such funds. In order to facilitate the management of capital requirements, we prepare annual operating and capital expenditure budgets that are monitored regularly for variances and updated periodically depending on various factors, including but not limited to: business development and commercial arrangements, capital deployment, personnel planning, service contracts with vendors, access to financing, government program applications, and general capital market or industry conditions. The Board of Directors relies on the expertise of executive management to sustain future development of the business towards commercialization. Executive management reviews the capital structure on an ongoing basis. We are not subject to any externally imposed capital requirements and there were no changes to our approach to capital management in 2023.

We invest excess capital in high-interest savings accounts ("HISAs") and/or HISA funds which bear interest at variable rates (cash equivalents), as well as in guaranteed investment certificates ("GICs") bearing fixed rates of interest that are liquid and redeemable on demand (cash equivalents) or in specific circumstances relate to standby letter of credit arrangements (restricted cash) and have original terms not exceeding 12 months.

Our investments in HISAs, HISA funds, and GICs, facilitates the diversification of treasury amongst high-credit quality Canadian chartered banks. These holdings are accessible on demand or cashable.

Capital Sources

Future Sources and Base Shelf Prospectus

We are active dialogue with government agencies, project finance lenders and strategic partners to secure funding for growth activities, a LFP commercial plant, and ongoing innovations. We are evaluating structures and government incentives to bring One-Pot process LFP to market sooner while being cognizant of shareholder's interests.

In support of our strategic objectives, we will be filing a preliminary base shelf prospectus ("Shelf Prospectus") to help provide the most flexible and efficient access to capital markets. The Shelf Prospectus, when made final or effective, would permit the Company to make offerings of various financial securities, up to an aggregate total of \$175,000,000 at our discretion, for an effective period of 25-months. This is a prudent step in the normal course of business.

During the 25-month period that the Shelf Prospectus would remain effective, the nature, size and timing of any financings would be dependent on our assessment of requirements for funding and general market conditions. At the time any securities covered by the Shelf Prospectus are offered for sale, a prospectus supplement containing specific information regarding the terms of the securities being offered would be provided.

2023 Equity Financing

On October 5, 2023, we issued a total of 5,498,355 common shares representing approximately 5% of our issued and outstanding common shares at the time, at \$3.07 per Share (\$16,879,950) in a non-brokered private placement.

Nano One and SMM also entered into an Investor Rights Agreement, providing SMM with participation rights in any future equity financings to maintain pro rata ownership interest for a period of up to three years to October 5, 2026. Under the agreement, SMM will agree to a standstill provision that, among other things, restricts SMM's ability to purchase additional shares without Nano One's consent for a period of 24 months and restricts SMM's ability to sell the Shares for 12 months, subject to certain exemptions.



Historical sources

We have raised approximately \$108,000,000 in the last four fiscal years (2020 to 2023) as follows:

- From February 2020 to April 2021 (14 months), we completed three equity financings for gross proceeds of approximately \$54,000,000 (\$50,000,000, net of costs);
- We received proceeds from exercises of stock options and warrants (approximately \$5,384,000 during 2021 and 2022, and approximately \$7,263,000 in 2023);
- We received proceeds from government assistance programs (approximately \$12,100,000); and
- We received proceeds from strategic equity investments by Rio Tinto in June 2022 and Sumitomo Metal Mining Co., Ltd., in October 2023, of approximately \$29,500,000 in aggregate.

Use of Proceeds from Historical Financings

The \$50,000,000 in aggregate, net of costs raised from the equity financings between February 2020 and April 2021 were comprised of:

- February 21, 2020 (the "First Financing"), by way of non-brokered private placement for gross proceeds of approximately \$11,000,000 (approximately \$10,000,000, net of fees and costs associated with the raise);
- October 29, 2020, by way of a short form prospectus offering for gross proceeds of approximately \$14,000,000 (approximately \$13,000,000 net of fees and costs associated with the raise);
- April 1, 2021, by way of another short form prospectus offering for gross proceeds of approximately \$29,000,000
 (approximately \$27,000,000 net of fees and costs associated with the raise).

From closing of the First Financing (February 21, 2020) to December 31, 2022, the period in which the net proceeds had been fully utilized, the utilization of the net proceeds of the financings are presented in the annual MD&A for the year ended December 31, 2022.

Shareholders' Equity

The authorized share capital of the Company consists of unlimited common shares without par value. All issued common shares are fully paid. All stock options, warrants, and RSUs/DSUs outstanding are each convertible into one common share of the Company. As at the MD&A Date, the Company's common share data was as follows:

	As at the MD&A Date	
	Weighted avera exercise price	
	#	\$
Common shares issued and outstanding	111,266,777	n/a
Stock options outstanding	2,255,513	3.03
RSUs/DSUs outstanding	1,290,512	n/a
Warrants outstanding	-	-
Fully diluted	114,812,802	

In January 2024, the Company granted an aggregate of 1,566,686 stock options and RSUs to officers, employees, and consultants as follows:

- 200,000 stock options to an officer of the Company exercisable at \$1.94 each for a period five years until January 19, 2029, which vest one-third annually to January 19, 2027;
- 743,948 stock options to officers of the Company exercisable at \$1.91 each for a period seven years until January 23, 2031, of which 500,000 vested immediately and the remainder vest one-third annually to January 23, 2027; and
- 622,738 RSUs to officers, employees, and consultants of the Company which vest one-third annually to January 23, 2024.



CONTRACTUAL OBLIGATIONS

As at December 31, 2023	Carrying amount \$	Contractual cash flows	Under 1 year \$	1-5 years \$	More than 5 years \$
Accounts payable and accrued liabilities	3,723,265	3,723,265	3,723,265	-	-
Accounts payable to related parties	46,461	46,461	46,461	-	-
Lease liabilities	1,718,386	2,201,056	559,687	989,809	651,560
Total	5,488,112	5,970,782	4,329,413	989,809	651,560

SUMMARY OF QUARTERLY RESULTS

The following table shows the results for the last eight fiscal quarters as prepared in accordance with IFRS and presented in Canadian dollars, the functional currency of Nano One and its subsidiaries:

	2023			2022				
	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1
Revenue	-	-	-	-	-	-	-	-
Loss from operating expenses	(9,013,580)	(7,581,520)	(8,088,571)	(8,484,363)	(5,430,296)	(2,407,926)	(4,538,130)	(4,364,364)
Cash used in operating activities	(9,036,487)	(6,921,232)	(8,303,093)	(2,798,241)	(575,888)	(2,144,738)	(2,913,619)	(3,726,641)
Cash used in investing activities	(1,919,234)	(1,720,180)	(193,687)	(333,592)	(6,181,208)	(31,419)	(10,401,701)	(186,329)
Cash provided by financing activities	16,822,700	240,178	2,829,193	3,757,172	265,459	184,030	12,498,233	6,958
Change in cash and cash equivalents	5,866,979	(8,401,234)	(5,667,587)	625,339	(6,491,637)	(1,992,127)	(817,087)	(3,906,012)
Cash from government grants ¹	13,666	884,300	29,448	3,366,331	102,362	1,913,055	68,483	68,285
Cash and cash equivalents	31,868,882	26,001,903	34,403,137	40,070,734	39,445,395	45,937,032	47,929,159	48,746,246
Working capital	30,135,235	22,067,827	30,049,580	35,726,607	40,588,090	45,802,797	47,455,543	48,635,140

¹ Cash from government grants is allocated between operating and investing activities within the financial statements.

There are no significant seasonal variations in quarterly results as we are not subject to significant seasonality in research and operational activities. Overall, we have maintained a strong cash position and healthy working capital as supported by private placements, equity exercises, and government grants over the last eight quarters. This is an achievement especially in the context of our growth.

- The primary driver of the increased operating expenses and cash used in operating and financing activities during 2023 is the consolidation our Candiac subsidiary's operations for all fiscal quarters in 2023. Consolidation of its operations began part way through Q4 2022 (from November 1, 2022). Particularly from Q4 2022 onwards, the first fiscal quarter with subsidiary operations consolidated, our operating expenses have trended upwards. A significant portion of our operating expenses relates to research and operational expenses and wages, benefits and fees which are characterized by significant advancements in our research and innovation, patent portfolio, engineering/feasibility and other studies, as well as the growth of our personnel count as we fill key roles along our path towards commercialization.
- Cash used in operating activities is subject to fluctuation due to the timing and amounts received from government
 grants that are recognized through operating or investing activities. Q4 2023 and Q3 2023 were particularly
 characterized by completing the conversion and commissioning of our 200 tpa LFP pilot plant within investing
 activities. In Q4 2022 and Q2 2022 investing activities included portions of the cash consideration paid for the
 acquisition of JMBM. Operating activities in Q1 2023 are relatively lower due to the SDTC proceeds received.
 Interest income increased in 2023 compared to 2022 and is included within investing activities.
- Cash provided by financing activities includes proceeds received from private placements including the Q2 2022 placement with Rio Tinto, and the Q4 2023 placement with Sumitomo. Amounts received in other quarters are attributable to exercises of stock options and warrants. Financing activities are partially offset by monthly payments for leased facilities which have increased as additional facilities were added in 2023 and 2022 along with renewed lease terms in 2023 that carry higher monthly rates.



TRANSACTIONS BETWEEN RELATED PARTIES

The following transactions were carried out with key management (gross amounts):

	Transactions year ended December 31, 2023	Transactions year ended December 31, 2022	Balances outstanding December 31, 2023	Balances outstanding December 31, 2022
Bedrock Capital	150.000	150.000	,	<u> </u>
DBM CPA	220.000	172.865	11,550	11,844
···	-,	,	11,550	11,044
Directors' fees	320,259	238,521	-	-
Management and directors' fees (within wages, benefits and fees)	690,259	561,386	11,550	11,844
Wages, benefits and fees (officers)	2,424,678	1,348,197	-	-
Share-based payments (directors and officers)	1,163,140	1,125,228	-	-
Patent Filing Specialists (professional and consulting; and intangible assets)	451,166	253,684	34,911	11,795
	4,729,243	3,288,495	46,461	23,639

Professional and consulting, net:

• Includes the services of Patent Filing Specialists Inc. ("Patent Filing Specialists"), a company controlled by Joseph Guy, a Company Director.

Wages, benefits and fees, net (including allocations to research and operational expenses, net):

- Includes salaries and short-term variable cash-based compensation incentives paid to Dan Blondal, CEO;
 Stephen Campbell, CTO; Alex Holmes, COO; Pamela Kinsman, Corporate Secretary/Director of Sustainability (until January 2024); Denis Geoffroy, Chief Commercialization Officer (CCO); Adam Johnson, Senior Vice-President of External Affairs; and Kelli Forster, Senior Vice-President of People & Culture.
- In accordance with an executive employment agreement the Company has in place with Dan Blondal, in case of termination by the Company without cause, he is entitled to six (6) weeks' base pay (or notice) for every year of service to a maximum of twenty-four (24) months. He would not be entitled to further bonus payments after termination. In the case of resignation after a Change of Control and for 'Good Reason', Dan Blondal is entitled to twenty-four (24) months' base salary.
- Includes the services of Bedrock Capital Corp. ("Bedrock Capital") a company controlled by Paul Matysek the Executive Chairman and a Company Director.
- Includes the services of Donaldson Brohman Martin, CPA Inc. ("DBM CPA"), a firm in which Dan Martino, CFO (until January 15, 2024) is a principal. Effective January 15, 2024, the Company announced the appointment of Carlo Valente as CFO, replacing Dan Martino who remains with the Company as Vice President of Finance.
- Includes compensation to non-executive directors of the Company and committee chairpersons.

Share-based payments:

Includes amounts recognized on vesting of stock options and Equity Incentives granted to directors and officers.

ACCOUNTING ESTIMATES, JUDGMENTS AND STANDARDS

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. Our material accounting policy information is detailed in Note 2 to the financial statements for the year ended December 31, 2023.

Key Estimates and Judgments

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 as at the date of the financial statements and reported amounts of profit or loss 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.



Fair value of equity incentives (stock options, restricted share units, deferred share units, performance share units) and compensatory warrants

Determining the fair value of stock options, and compensatory warrants for services or in relation to financings, requires estimates related to the choice of a pricing model, the estimation of stock price volatility, the fair value of the Company's common shares, the expected forfeiture rate, and the expected term of the underlying instruments. Any changes in the estimates or inputs utilized to determine fair value could have a significant impact on the Company's future operating results or on other components of shareholders' equity.

Property, plant and equipment

The estimated useful lives of property, plant and equipment are reviewed by management and adjusted if necessary. To estimate property, plant and equipment's useful life, management may use its past experience, review engineering estimates and industry practices for similar items of property, plant and equipment to assist in its determination of useful life. There have been no changes to the depreciation methods used by the Company during the year ended December 31, 2023.

Acquisitions

The determination of whether a set of assets acquired, and liabilities assumed constitute a business may require the Company to make certain judgments, considering all facts and circumstances. A business is presumed to be an integrated set of activities and assets capable of being conducted and managed for the purpose of providing a return in the form of dividends, lower costs or economic benefits. The transaction with Johnson Matthey Battery Materials Ltd. during the year ended December 31, 2022, was determined to constitute an asset acquisition (Note 3).

Research and operational expenses

The determination of whether expenditures on research and development activities meet the criteria for capitalization as internally generated intangible assets is subject to estimation and uncertainty. The Company has determined that until such time that it has a commercial-scale plant in the condition and location necessary to commence commercial production, that it will remain in the research phase (pre-commercial phase) and accordingly expenditures will be expensed within the Company's results of operations.

The Company has determined that its activities continue to be classified as research in nature, as opposed to development. This results in research costs being expensed to profit or loss within the financial statements.

New Standards

Certain pronouncements have been issued by the IASB or IFRIC that are effective for accounting periods beginning on or after January 1, 2024. The Company has reviewed these updates and determined that none are applicable or consequential to the Company and have been excluded from discussion within the material accounting policy information.

In June 2023, the International Sustainability Standards Board ("ISSB") issued the following IFRS Sustainability Disclosure Standards: General Requirements for Disclosure of Sustainability-related Information (IFRS S1); and Climate-related Disclosure (IFRS S2), which are effective for accounting periods beginning on or after January 1, 2024, but are not currently mandated in Canada. The Company will monitor the continued development of mandating these standards and the requisite disclosure requirements.

IFRS S1 sets out general reporting requirements for disclosing sustainability-related financial information. IFRS S2 requires an entity to disclose information about climate-related risks and opportunities and the impact on an entity's financial position, performance, cash flows, strategy, and business model.

CHANGE IN EXECUTIVE OFFICERS

Effective March 29, 2023, Adam Johnson was appointed Senior Vice-President of External Affairs.

Subsequent to the year ended December 31, 2023, effective January 15, 2024, the Company announced the appointment of Carlo Valente as the new CFO. Dan Martino remains with the Company as Vice President of Finance. Additionally, the Leanne Likness Swanson became the Company's Corporate Secretary, replacing Pamela Kinsman.



RISKS AND UNCERTAINTIES

Risk is inherent in all business activities and cannot be entirely eliminated. An investment in Nano One's common shares involves risk. Investors should carefully consider the risks and uncertainties described below and, in the AIF, filed with Canadian securities regulators and on our website which may not be a comprehensive list of risks and uncertainties. Additional risks and uncertainties, including those unknown by Nano One at this time, or are currently considered immaterial, may exist, and other risks may apply.

Public Health Crises, Including COVID-19

A local, regional, national, or international outbreak of a contagious disease, such as COVID-19, could have an adverse effect on local economies and potentially the global economy, which may adversely impact the price and demand for materials required all along the supply chain the Company currently relies upon and will rely upon for its development and expansion plans. COVID-19 could affect the Company's ability to conduct operations and may result in temporary shortages of staff to the extent the Company's work force is impacted. Such an outbreak, if uncontrolled, could have a material adverse effect on the business, financial condition, results of operations and cash flows.

Risk Management

The ability to advance our strategic objectives depends on our ability to understand and appropriately respond to the uncertainties or business risks that may prevent us from achieving our objectives. To achieve this, we maintain a framework that permits us to manage risk effectively and integrate a process for managing risk into all our important decision-making processes so that we reduce the effect of uncertainty on achieving our objectives and maintain the oversight of relevant committees of the Board on the effectiveness of our risk management processes.

DISCLOSURE CONTROLS AND PROCEDURES AND ICFR

In accordance with National Instrument 52—109 of the Canadian Securities Administrators (CSA), the Company has filed certificates signed by the Chief Executive Officer ("CEO") and the Chief Financial Officer ("CFO") that report on the design and effectiveness of disclosure controls and procedures ("DC&P") and the design and effectiveness of internal controls over financial reporting.

The Company's DC&P are designed to provide reasonable assurance that material information relating to the Company is made known to the CEO and CFO, particularly during the period in which the interim filings are being prepared, and information required to be disclosed by the Company in its annual and interim filings under Canadian securities legislation is recorded, processed, summarized, and reported within the time periods specified in securities legislation.

Additionally, the Company has designed internal controls over financial reporting or caused it to be designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS.

During the years ended December 31, 2023 and December 31, 2022, there were no changes in internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

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.

Nano One does not utilize off-balance sheet arrangements. There are no proposed transactions as at the MD&A Date.