MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following management's discussion and analysis ("**MD&A**") dated March 2, 2021 is intended to assist the readers in the understanding of EcoSynthetix Inc. and its wholly owned subsidiaries ("**EcoSynthetix**" or the "**Company**"), its business environment, strategies and performance and risk factors. It should be read in conjunction with the audited annual consolidated financial statements for the year ended December 31, 2020. Financial data has been prepared in conformity with International Financial Reporting Standards ("**IFRS**") and using the same accounting policies and methods as those used in the Company's audited consolidated financial statements for the year ended December 31, 2020.

The Company, together with its consolidated subsidiaries, is referred to as the "Company", "we", "us", or "our". Our functional currency and reporting currency is the U.S. dollar. Unless otherwise indicated, all references to "$" and "dollars" in this discussion and analysis mean U.S. dollars.

Certain measures used in this MD&A do not have any standardized meaning under IFRS. When used, these measures are defined in such terms as to allow the reconciliation to the closest IFRS measure. It is unlikely that these measures could be compared to similar measures presented by other companies. See "IFRS and non-IFRS Measures".

Forward-looking statements are included in this MD&A. See "Forward-Looking Statements" below for a discussion of risks, uncertainties and assumptions relating to these statements. For a description of the risks relating to the Company, refer to the "Risk Factors" section of this MD&A and the "Risk Factors" section of the Company's Annual Information Form dated March 2, 2021.

Forward-looking Statements

Certain statements contained in this MD&A constitute forward-looking statements. All statements other than statements of historical fact may be forward-looking statements. These statements relate to, but are not limited to, future events or future performance, our expectations regarding the Company's growth, results of operations, estimated future revenues, requirements for additional capital, production costs, future demand for latex-based products, business prospects and opportunities. Forward-looking statements are often, but not always, identified by use of words such as ''may'', ''will'', ''should'', ''could'', ''seek'', ''anticipate'', ''contemplate'', ''continue'', ''expect'', ''intend'', ''plan'', ''potential'', ''budget'', ''target'', ''believe'', ''estimate'' and similar expressions. The forward-looking statements in this document include, but are not limited to, statements regarding the Company's expected product pipeline, plans to expand the Company's business into new markets, the Company's ability to achieve organizational efficiencies, and other statements regarding the Company's plans and expectations in 2021. Such statements reflect our current views and beliefs with respect to future events, are subject to risks and uncertainties, and are based upon a number of estimates and assumptions that, while considered reasonable by us, are inherently subject to significant business, economic, competitive, political and social uncertainties and contingencies. Those assumptions and risks include, but are not limited to, the Company's ability to successfully allocate capital as needed and to develop new products, as well as the fact that our results of operations and business outlook are subject to significant risk, volatility and uncertainty. Many factors could cause actual results, performance or achievements to be materially different from any future results, performance, or achievements that may be expressed or implied by such forward-looking statements.

We have made material assumptions regarding, among other things: that our intellectual property rights are adequately protected; our ability to obtain the materials necessary for the production of our products; our ability to convert prospects from the industrial trial phase into full commercial customers; our ability to market products successfully to our customers; that we will continue to possess unique intellectual property rights; changes in demand for and prices of our products or the materials required to produce those products; labour and material costs remaining consistent with our current expectations; the price and availability of substitute or competitive products; and that we do not and will not infringe third party intellectual property rights. Some of our assumptions are based upon internal estimates and analysis of current market conditions and trends, management plans and strategies, economic conditions and other factors and are necessarily subject to risks and uncertainties inherent in projecting future conditions and results.

Some of the risks that could affect our future results and could cause those results to differ materially from those expressed in the forward-looking information include, among other things: an inability to protect, defend, enforce or use our intellectual property and/or infringement of third-party intellectual property; dependence on certain customers and changes in customer demand; the availability and price of natural feedstock's used in the production of our products; the inability to effectively expand our production facilities; variations in our financial results; increase in industry competition; the risk of volatility in global financial conditions, as well as significant decline in general economic conditions; our ability to effectively commercially market and sell our products; our ability to protect our know-how and trade secrets; Company growth and the impact of significant operating and capital cost increases; changes in the current political and regulatory environment in which we operate; the inability to retain key personnel; changes to regulatory requirements, both regionally and internationally, governing development, production, exports, taxes, labour standards, waste disposal, and use, environmental protection, project safety and other matters; enforcement of intellectual property rights; a significant decrease in the market price of petroleum related feedstocks; a shortage of supplies, equipment and parts; the inability to secure additional government grants; a deterioration in our cash balances or liquidity; the inability to obtain equity or debt financing; the ability to acquire intellectual property; the risk of litigation; changes in government regulations and policies relating to our business; losses from hedging activities and changes in hedging strategy; insufficient insurance coverage; the impact of issuance of additional equity securities on the trading price of the Common Shares; the impact of ethical, legal and social concerns relating to genetically modified organisms and the food versus fuel debate; the risk of business interruptions; the impact of changes in interest rates; the impact of changes in foreign currency exchange; and credit risk, as well as the factors identified in the "Risk Factors" section of the Company's Annual Information Form dated March 2, 2021. Such factors are not intended to represent a complete list of the factors that could affect us. These factors should be considered carefully and prospective investors should not place undue reliance on forward-looking information.

Risk Factors

For a detailed description of the risk factors associated with the Company, refer to the "Risk Factors" section of the Company's Annual Information Form dated March 2, 2021.

Impact of COVID – 19

The recent outbreak of the novel coronavirus (COVID-19 and its variants), which has been declared by the World Health Organization to be a "pandemic", has spread across the globe and is impacting worldwide economic activity. The governments of many countries, states, cities and other geographic regions have taken preventative or protective actions, such as imposing restrictions on travel and business operations and temporary closures of businesses. In addition, numerous other businesses have temporarily closed voluntarily. Such actions are creating disruption in global supply chains, increasing rates of unemployment and adversely impacting many industries.

During the twelve months ended December 31, 2020, the impact of COVID-19 has caused both the global demand for paper products to decrease and a decrease in the pricing of petroleum-related products with which the Company's products compete with. This has resulted in reduced sales volume, lower pricing and reduced gross profit for the Company. COVID-19 has reduced the Company's ability to effectively market and trial its products with customers where on-site collaboration is preferred. COVID-19 has also caused a decline in interest rates reducing interest income earned on cash deposits and short-term investments. During the twelve months ended December 31, 2020, the Company also applied for and received government assistance under the Canadian Emergency Wage Subsidy (CEWS) program and the Canadian Emergency Rent Subsidy (CERS) program. No other COVID-19 related risks identified below have materialized during the period and there has been no other direct impact on operating results.

The global impact of COVID-19 continues to evolve rapidly, and in 2021, COVID-19 will likely continue to have negative material impacts on the global economy and our relevant markets. For the Company, this outbreak might materially impact the Company's ability to manufacture, source (including the delivery of raw materials to its facilities) or distribute its products both domestically and internationally; reduce our ability to effectively market and sell our products; reduce demand for our products; result in labor shortages or social unrest; cause a significant decrease in the market price for petroleum related feedstocks which our products compete with, and cause increased credit risk. Any of these additional risks factors could have a significant negative impact on the Company's financial results. Given the dynamic nature of this outbreak, the extent to which the COVID-19 virus impacts the Company's operational results and financial performance will depend on future developments, which remain highly uncertain and cannot be accurately predicted at this time, including the duration, scope and severity of the pandemic, the actions taken to contain or mitigate its impact, and the direct and indirect economic effects of the pandemic and related containment measures, among others.

Should one or more of these risks or uncertainties materialize, or should assumptions underlying those forward-looking statements prove incorrect, actual results may vary materially from those anticipated in such forward-looking statements. Although the forward-looking statements contained in this MD&A are based upon what we believe to be reasonable assumptions, there can be no assurance that such forward-looking information will prove to be accurate and we cannot assure that actual results will be consistent with these forward-looking statements. Accordingly, readers should not place undue reliance on forward-looking statements. The information contained in this document, including the information provided under the heading ''Risk Factors'', identifies additional factors that could affect the Company's operating results and performance. Forward-looking information contained in this MD&A is made as of March 2, 2021 and we disclaim any obligation to update any forward-looking information, whether as a result of new information, future events or results, except as may be required by applicable securities laws. Accordingly, potential investors should not place undue reliance on forward-looking information.

IFRS and Non-IFRS Measures

This MD&A makes reference to certain non-IFRS measures. These non-IFRS measures are not recognized measures under IFRS, do not have a standardized meaning prescribed by IFRS and are therefore unlikely to be comparable to similar measures presented by other companies. Rather, these measures are provided as additional information to complement those IFRS measures by providing a further understanding of results of operations of the Company from management's perspective. Accordingly, they should not be considered in isolation or as a substitute for analysis of the financial information of the Company reported under IFRS. We use non-IFRS measures such as Adjusted EBITDA to provide investors with a supplemental measure of operating performance and thus highlight trends in our core business that may not otherwise be apparent when relying solely on IFRS financial measures. We also believe that securities analysts, investors and other interested parties frequently use non-IFRS measures in the evaluation of issuers. Our management also uses non-IFRS measures in order to facilitate operating performance comparisons from period to period, prepare annual operating budgets and assess its ability to meet its capital expenditure and working capital requirements.

Adjusted EBITDA as presented herein are not recognized measures under IFRS and should not be considered as an alternative to operating income or net income as measures of operating results or an alternative to cash flows as measures of liquidity. Adjusted EBITDA is defined as consolidated net income (loss) before interest, income taxes, depreciation, amortization, impairment loss on property, plant and equipment (PP&E), accretion, and other non-cash expenses deducted in determining consolidated net income (loss).

Overview

We are a renewable chemicals company specializing in bio-based materials that are used as inputs in a wide range of products that allow customers to reduce their use of harmful materials, such as formaldehyde and styrene-based chemicals. Our flagship products, DuraBind® and EcoSphere®, are used to manufacture wood composites, paper and paperboard, and enable performance improvements, economic benefits and sustainability. Our strategy is to commercialize a broad range of bio-based polymer and monomer products within specific market segments. We have developed processes that leverage "green" technology to produce bio-based materials from natural feedstocks, such as potato, tapioca and cornstarch, as an alternative to petroleum-derived feedstocks.

To date, we have developed the following two bio-based technology platforms that support broad application across a wide range of industries: (i) a biopolymer nanosphere technology that has been fully scaled and validated; and (ii) a bio-based sugar macromer technology. Our biopolymer nanosphere technology has generated two products, EcoSphere biopolymers and DuraBind biopolymers. Our bio-based sugar macromer technology has generated two products, EcoMer® biomonomers and EcoStix® bio-based pressure sensitive adhesives. Substantially all of our revenue has been generated from the sale of EcoSphere biopolymers into the paper & paperboard market.

Factors Affecting the Results of Operation

Commercialization

Our customers typically go through the following evaluation stages prior to commercial adoption of our products:

(i) laboratory evaluation;
(ii) pilot scale production testing; and
(iii) industrial trials representing full scale production.

Our performance is influenced by our ability to convert prospects from the industrial trial phase into full commercial customers. The industrial trial stage is an important part of the sales cycle; it requires potential customers to invest significant resources, including labour and operating expenditures, and the product must meet or surpass rigorous qualification procedures. Successfully reaching the mill trial stage with a potential customer reflects substantial interest and commitment from them.

Our financial condition and results of operations are influenced by a variety of other factors, including:

- Optimizing the formulation of existing products to allow higher substitution rates by current and new customers and the ability to effectively develop products for new markets which could be a significant source of revenue growth in the future

- Pricing of incumbent technologies and other substitutes for our products

- Feedstock, other input and production costs

Net Sales

Revenue is recognized when the Company has satisfied its performance obligations as set out in the contract with the customer, the contract has commercial substance and it is probable that the Company will collect the consideration it is entitled to on performance of its obligations in the contract. These criteria are generally met when the transfer of control of goods has occurred which typically occurs at the time of shipment or delivery, depending on the terms of the agreement. Net sales are measured based on the price specified in the sales contract net of any discounts and estimated returns at the time of sale.

Cost of sales and gross profit

Our gross profit is derived from our net sales less our cost of sales. Cost of sales includes raw material costs, contract manufacturing costs, freight costs and depreciation related to manufacturing equipment. Direct materials consist of the costs of natural feedstock and process chemicals. Cost of sales is mainly affected by the cost of natural feedstock costs and contract manufacturing costs.

Selling, general and administrative

Selling, general and administrative expense (SG&A) primarily relates to salaries & benefits and other employee related costs which collectively represent approximately 55% of total SG&A. In addition to this, SG&A includes: travel expenses, professional fees, facility costs, foreign exchange gains and losses, insurance, marketing costs and share-based compensation.

Foreign exchange represents the revaluation of monetary assets and liabilities denominated in foreign currencies. The change in foreign exchange gains and losses are primarily due to foreign exchange rate fluctuations between the U.S. dollar (our functional currency) and foreign currencies on our net monetary position in those respective currencies.

Research and development

Expenditures during the research phase are expensed as incurred. Expenditures during the development phase are expensed as incurred, unless they meet certain capitalization criteria. No development costs have been capitalized to date.

Our research and development expenses (R&D) consist of costs incurred to develop and test our products. Salaries & benefits related to employees directly involved in research and development activities represent approximately 45% of total R&D. In addition, R&D includes costs related to consultants, facility costs including depreciation on property, plant and equipment not utilized in our production process, supplies and other costs directly associated with product development. These costs are partially offset by government grants related to such expenditures.

Results of operations

The following is a summary of our results of operations for the three and twelve months ended December 31, 2020 and 2019:

	Three months ended		Change	
	December 31, 2020	December 31, 2019	$	%
Net sales	3,343,823	4,398,305	(1,054,482)	-24%
Gross profit	679,331	1,012,936	(333,605)	-33%
Loss from operations	(792,126)	(864,227)	72,101	-8%
Net loss	(705,904)	(587,793)	(118,111)	20%
Weighted average number of shares outstanding	56,823,364	58,101,864	(1,278,500)	-2%
Basic and diluted loss per share	(0.01)	(0.01)	(0.00)	23%
Adjusted EBITDA[1] loss	(123,634)	(237,330)	113,696	-48%

	Twelve months ended		Change	
	December 31, 2020	December 31, 2019	$	%
Net sales	13,662,711	18,446,922	(4,784,211)	-26%
Gross profit	2,738,373	4,029,725	(1,291,352)	-32%
Loss from operations	(3,007,591)	(2,562,704)	(444,887)	17%
Net loss	(2,402,094)	(1,454,058)	(948,036)	65%
Weighted average number of shares outstanding	57,196,584	58,297,045	(1,100,461)	-2%
Basic and diluted loss per share	(0.04)	(0.02)	(0.02)	68%
Adjusted EBITDA[1] loss	(784,265)	(397,020)	(387,245)	98%

[1] *Refer to "IFRS and Non-IFRS Measures" section in this MD&A*

Net Sales – Net sales for the three months ended December 31, 2020 were $3.3 million compared to $4.4 million in the same period last year, a decrease of $1.1 million or 24%. The decrease was due to lower sales volumes which reduced sales $0.8 million, or 18%, and a lower average selling price which reduced sales by $0.3 million, or 6%. Net sales for the twelve months ended December 31, 2020 were $13.7 million compared to $18.4 million in the same period last year, a decrease of $4.8 million or 26%. The decrease was due to lower sales volume which reduced sales $3.6 million, or 19%, and a lower average selling price which reduced sales by $1.2 million, or 7%. The decrease in volume and average selling price over both periods was primarily due to unfavorable market conditions brought on by the COVID-19 pandemic which reduced the global demand for paper and paperboard products and created adverse market dynamics.

Gross profit – Gross profit for the three and twelve months ended December 31, 2020 was $0.7 million and $2.7 million compared to $1.0 million and $4.0 million in the same periods last year, a decrease of $0.3 million, or 33%, and $1.3 million, or 32%, respectively. The decrease in both periods was due to lower sales volumes and a lower average selling price partly offset by lower manufacturing costs.

Gross profit as a percentage of sales for the three and twelve months ended December 31, 2020 was 20.3% and 20.0% compared to 23.0% and 21.8% in the same periods last year. Gross profit as a percentage of sales adjusted for manufacturing depreciation for the three and twelve months ended December 31, 2020 was 27.2% and 26.0% compared to 27.8% and 26.0% in the same periods last year. The decrease in gross profit as a percentage of sales during the three and twelve months ended December 31, 2020, and the decrease in gross profit adjusted for manufacturing depreciation during the three months ended December 31, 2020 was primarily due to a lower average selling price partly offset by lower manufacturing costs. Gross profit adjusted for manufacturing depreciation during the twelve months ended December 31, 2020 was consistent with the same period last year.

Operating Expenses

The following table sets forth the breakdown of our operating expenses by category during the three and twelve months ended December 31, 2020 and 2019:

	Three months ended		**Change**	
	December 31, 2020	**December 31, 2019**	**$**	**%**
Selling, general and administrative	1,204,655	1,408,141	(203,486)	-14%
Research and development	266,802	469,022	(202,220)	-43%
Total operating expenses	1,471,457	1,877,163	(405,706)	-22%

	Twelve months ended		**Change**	
	December 31, 2020	**December 31, 2019**	**$**	**%**
Selling, general and administrative	4,333,649	4,849,977	(516,328)	-11%
Research and development	1,412,315	1,742,452	(330,137)	-19%
Total operating expenses	5,745,964	6,592,429	(846,465)	-13%

Selling, general and administrative (SG&A) – SG&A expenses for the three months ended December 31, 2020 were $1.2 million compared to $1.4 million in the same period last year, a decrease of $0.2 million or 14%. The decrease was primarily due to payments received under the Canadian Emergency Wage Subsidy program (CEWS) in the amount of $0.1 million, and lower discretionary spend. SG&A expenses for the twelve months ended December 31, 2020 were $4.3 million compared to $4.8 million during the same period last year a decrease of $0.5 million, or 11%. The decrease was primarily due to payments received from CEWS in the amount of $0.3 million and lower discretionary spend.

Research and development (R&D) – R&D expenses for the three and twelve months ended December 31, 2020 were $0.3 million and $1.4 million compared to $0.5 million and $1.7 million in the same periods last year. The decrease of $0.2 million and $0.3 million in both periods respectively is due to payments received under the CEWS program and lower discretionary spend. R&D expense as a percentage of sales was 8% and 10% for the three and twelve months ended December 31, 2020, compared to 11% and 9% in the same periods last year. The Company's R&D efforts continue to focus on further enhancing value for our existing products and expanding addressable opportunities.

Loss from operations – Loss from operations for the three months ended December 31, 2020 was $0.8 million compared to $0.9 million in the same period last year, a decrease of $0.1 million or 8%. The decrease is primarily due to lower operating expenses offset by lower gross profit. Loss from operations for the twelve months ended December 31, 2020 was $3.0 million compared $2.6 million in the same period last year, an increase of $0.4 million, or 17%. The increase is primarily due to lower gross profit partly offset by lower operating expenses.

Net Loss – Net loss for the three months ended December 31, 2020 was $0.7 million, or $0.01 net loss per common share compared to $0.6 million, or $0.01 net loss per common share in the same period last year. The increase in net loss is due to lower interest income partially offset by a lower loss from operations. Net loss for the twelve months ended December 31, 2020 was $2.4 million, or $0.04 net loss per common share, compared to $1.5 million or $0.02 net loss per common share in the same period last year. The increase in net loss is due to an increase in loss from operations.

Financial Condition

	December 31 2020	December 31 2019	Change $	%
Total current assets	46,102,570	47,980,732	(1,878,162)	-4%
Total assets	51,723,375	54,710,103	(2,986,728)	-5%
Total current liabilities	1,179,097	1,360,568	(181,471)	-13%
Total liabilities	2,251,384	2,537,211	(285,827)	-11%

Total current assets – Total current assets at December 31, 2020 were $46.1 million compared to $48.0 million at December 31, 2019, a decrease of $1.9 million or 4%. The decrease is primarily due to lower cash and short-term investments of $1.7 million which was primarily caused by the repurchase of common shares through the normal course issuers bid (NCIB) in the amount of $2.0 million, as well as lower inventory of $0.1 million.

Total assets – Total assets at December 31, 2020 were $51.7 million compared to $54.7 million at December 31, 2019, a decrease of $3.0 million or 5%. The change was due to a decrease in current assets of $1.9 million as well as depreciation of $1.4 million on PP&E offset by $0.3 million in additions to PP&E. $0.2 million of additions to PP&E relate to manufacturing equipment and the other $0.1 million addition relates to a revaluation of the Company's right-of-use asset due to a change in lease rates.

Total current liabilities – Total current liabilities at December 31, 2020 were $1.2 million compared to $1.4 million at December 31, 2019, a decrease of $0.2 million or 13%. The decrease was primarily due to the timing of settlement of accrued liabilities.

Total liabilities – Total liabilities at December 31, 2020 were $2.3 million compared to $2.5 million at December 31, 2019, a decrease of $0.3 million or 11%. The decrease was primarily due to lower current liabilities of $0.2 million and a reduction of $0.1 million in the non-current portion of lease liability. The reduction of the non-current portion of the lease liability was due to payments during the year partly offset due to the foreign currency revaluation of the liability and the increase in lease liability as a result of a change lease rates.

Liquidity and Capital Resources

We currently fund our business operations through cash flow generated from our operations and from existing cash. We believe that ongoing operations, working capital and associated cash flow in addition to our cash resources provide sufficient liquidity to support our ongoing business operations for the foreseeable future.

Below is a summary of our cash flows provided by / (used in) operating activities, financing activities and investing activities for the three and twelve months ended December 31, 2020 and 2019:

	Three months ended		Change	
	December 31, 2020	**December 31, 2019**	**$**	**%**
Cash (used in) provided by operating activities	(462,062)	115,099	(577,161)	-501%
Cash provided by (used in) investing activities	9,958,179	(251,898)	10,210,077	-4053%
Cash provided by (used in) by financing activities	267,930	(721,749)	989,679	-137%
Effect of exchange rate changes on cash	39,546	47,483	(7,937)	-17%
Change in cash	9,803,593	(811,065)	10,614,658	-1309%
Beginning cash	6,833,568	8,786,778	(1,953,210)	-22%
Ending cash	**16,637,161**	**7,975,713**	**8,661,448**	**109%**

	Twelve months ended		Change	
	December 31, 2020	**December 31, 2019**	**$**	**%**
Cash provided by operating activities	226,776	705,612	(478,836)	-68%
Cash provided by (used in) investing activities	9,751,854	(5,458,172)	15,210,026	-279%
Cash used in financing activities	(1,430,629)	(1,446,914)	16,285	-1%
Effect of exchange rate changes on cash	113,447	(32,155)	145,602	-453%
Change in cash	8,661,448	(6,231,629)	14,893,077	-239%
Beginning cash	7,975,713	14,207,342	(6,231,629)	-44%
Ending cash	**16,637,161**	**7,975,713**	**8,661,448**	**109%**

Cash (used in) provided by operating activities – Cash used in operating activities for the three months ended December 31, 2020 was $0.5 million compared to cash provided by operating activities of $0.1 million in the same period last year, a change of $0.6 million. The change was primarily due to a higher net loss and lower cash received from working capital partly offset by higher interest received on short-term investments. Cash provided by operating activities for the twelve months ended December 31, 2020 was $0.2 million compared to $0.7 million in the same period last year, a decrease of $0.5 million or 68%. The decrease is primarily due to a higher net loss adjusted for non-cash items partly offset by higher cash received from working capital and interest received on short-term investments.

Cash provided by (used in) investing activities – Cash provided by investing activities for the three months ended December 31, 2020 was $10 million compared to cash used in investing activities of $0.3 million, a change of $10.2 million. During the three months ended December 31, 2020, $10.0 million of short-term investments matured which was partly offset by a nominal amount of purchases of PP&E related to the Company's production facilities. During the three months ended December 31, 2019, cash used in investing activities were $0.3 million which related to purchases of PP&E related to the Company's production facilities. Cash provided by investing activities for the twelve months ended December 31, 2020 were $9.8 million compared to cash used in investing activities of $5.5 million, a change of $15.2 million. During the twelve months ended December 31, 2020, $10.0 million of short-term investments matured which was offset by $0.2 million of purchases of PP&E related to the Company's production facilities. During the twelve months ended December 31, 2019, a $0.5 million of short-term investment was purchased, which matured in January 2020, and $0.5 million of purchases of PP&E were made relating to the Company's production facilities.

Cash provided by (used in) financing activities – Cash provided by financing activities during the three months ended December 31, 2020 was $0.3 million compared to cash used in financing activities of $0.7 million in the same period last year, a change of $1.0 million. During the three months ended December 31, 2020, $0.6 million in proceeds from the exercise of common share options was offset by $0.3 million in common share purchases made through the NCIB. During the three months ended December 31, 2019, $0.7 million of common share purchases were made through the NCIB. Cash used in financing activities during the twelve months ended December 31, 2020 was $1.4 million which was comparable to the same period last year. During the twelve months ended December 31, 2020, $2.0 million of common shares were purchased through the NCIB and $0.2 million of principal payments were made on the lease liability which was offset by $0.7 million in proceeds from the exercise of common share options. During the twelve months ended December 31, 2019, $1.5 million of common shares were purchased through the NCIB, $0.2 million in principal payments were made on the lease liability and $0.2 million in proceeds were received from the exercise of common share options.

Effect of exchange rate changes on cash – The effect of exchange rate changes on cash is primarily due to the revaluation of cash denominated in Canadian dollars and the impact of currency fluctuations between the Canadian dollar and U.S. dollar.

Capital Management

The Company's objective in managing capital is to ensure sufficient liquidity to pursue its growth strategy and fund research and product development, while at the same time taking a conservative approach towards managing financial risk. The Company's capital is composed of the net cash received related to common shares and shareholder option exercises. Our primary uses of capital are financing operations, increasing non-cash working capital and capital expenditures. We currently fund these requirements from existing cash resources and cash raised through share issuances. Our objectives when managing capital are to ensure that we will continue to have enough liquidity to provide our products and services to our customers and a return to our shareholders. We monitor our capital on the basis of the adequacy of our cash resources to fund our business plan. In order to maximize the capacity to finance our ongoing growth, we do not currently pay a dividend to holders of our common shares.

Commitments

The Company entered the following contractual obligations in the normal course of operations that were not recognized as liabilities as at December 31, 2020:

I. The Company is committed to purchases of feedstock of approximately $2.1 million over the next twelve months. The Company may enter into feedstock contracts to secure raw material availability over a twelve to twenty-four-month period based on market pricing at the time of purchase.

II. The Company is committed to purchasing $0.6 million of other production raw materials and equipment related to its production facilities over the next twelve months.

Summary of Quarterly Results

The following table sets out selected financial information for each of the eight most recent quarters, the latest of which ended December 31, 2020. This information has been prepared on the same basis as the annual financial statements and all necessary adjustments have been included in the amounts stated below to present fairly the unaudited quarterly results when read in conjunction with the quarterly financial statements of the Company and the related notes to those statements.

	Three months ended							
	December 31, 2020	September 30, 2020	June 30, 2020	March 31, 2020	December 31, 2019	September 30, 2019	June 30, 2019	March 31, 2019
Net sales	3,343,823	2,991,591	3,102,881	4,224,416	4,398,305	4,505,533	5,074,363	4,468,721
Gross profit	679,331	443,286	515,542	1,100,214	1,012,936	1,004,569	1,021,148	991,072
Loss from operations	(792,126)	(786,501)	(780,596)	(648,368)	(864,227)	(594,751)	(475,445)	(628,281)
Net loss	(705,904)	(640,690)	(608,245)	(447,255)	(587,793)	(312,441)	(200,588)	(353,236)
Weighted average number of shares outstanding	56,823,364	56,924,245	57,119,605	57,926,217	58,101,864	58,378,346	58,418,779	58,290,368
Basic and diluted loss per share	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.00)	(0.01)
Adjusted EBITDA (1) (loss) gain	(123,634)	(227,925)	(242,467)	(190,239)	(237,330)	(40,330)	25,695	(145,055)

The following table reconciles net loss to Adjusted EBITDA for the three months ended:

	Three months ended							
	December 31, 2020	September 30, 2020	June 30, 2020	March 31, 2020	December 31, 2019	September 30, 2019	June 30, 2019	March 31, 2019
Net loss	(705,904)	(640,690)	(608,245)	(447,255)	(587,793)	(312,441)	(200,588)	(353,236)
Depreciation	391,098	365,426	369,103	313,877	363,391	327,711	387,330	302,629
Share-based compensation	277,394	193,150	169,026	144,252	263,506	226,710	113,810	180,597
Interest income	(86,222)	(145,811)	(172,351)	(201,113)	(276,434)	(282,310)	(274,857)	(275,045)
Adjusted EBITDA (1) (loss) gain	(123,634)	(227,925)	(242,467)	(190,239)	(237,330)	(40,330)	25,695	(145,055)

Notes:

(1) *Refer to "IFRS and Non-IFRS Measures" section in this MD&A*

Adjusted EBITDA

The following table reconciles net loss to Adjusted EBITDA for the twelve months ended December 31, 2020 and 2019.

	Twelve months ended		Change	
	December 31, 2020	December 31, 2019	$	%
Net loss	(2,402,094)	(1,454,058)	(948,036)	65%
Depreciation	1,439,504	1,381,061	58,443	4%
Share-based compensation	783,822	784,623	(801)	0%
Interest income	(605,497)	(1,108,646)	503,149	-45%
Adjusted EBITDA[(1)] loss	(784,265)	(397,020)	(387,245)	98%

Adjusted EBITDA loss for the three months ended December 31, 2020 was $0.1 million compared to $0.2 million in the same period last year, a decrease of $0.1 million. The decrease is due to lower operating expenses partially offset by lower gross profit. Adjusted EBITDA loss for the twelve months ended December 31, 2020 was $0.8 million compared to $0.4 million in the same period last year, an increase of $0.4 million. The increase is due to a higher net loss due to lower gross profit partly offset by lower operating expenses.

Internal control over financial reporting

There were no changes in the Company's internal control over financial reporting during the three months ended December 31, 2020 that have materially affected, or are reasonable likely to materially affect, the Company's internal control over financial reporting.

Additional Information

Additional information relating to EcoSynthetix Inc., including continuous disclosure documents, are available on SEDAR at www.sedar.com.

Common Share Trading Information

The Company's common shares trade on the Toronto Stock Exchange under the symbol "ECO". As at March 2, 2021, the Company had the equivalent of **57,247,040** common shares issued and outstanding. If all outstanding share options were exercised and assuming the settlement of outstanding RSU's and DSU's through common shares, there would be the equivalent of **62,649,998** common shares issued and outstanding on a fully diluted basis.

Outlook

Despite the ongoing challenges of the COVID-19 pandemic and its impact on our markets, significant progress has been made towards achieving sustainable growth and profitability. EcoSynthetix has lowered its cost footprint, invested in leadership and talent, focused its R&D efforts and pursued a growth strategy which leverages its foundation in paper and paperboard packaging and the commercialization of DuraBind within the building materials space and our all-natural ingredients within the personal care space. The progress achieved with its renewable, bio-based materials positions the Company strongly to help global leaders in these markets achieve their increasingly aggressive sustainability and ESG goals.

EcoSynthetix will continue to execute on the following priorities to drive profitable growth

1. **Execute our "multiple shots on goal" commercial strategy –** The majority of the Company's sales will continue to be driven by the paper and paperboard market in 2021. However, with the Company's commercial progress within the wood composites and personal care markets it expects to transition over time to a more diversified approach with contributions growing from DuraBind and its biopolymer for personal care.

2. **Support our paper and paperboard accounts –** The Company's relationships with key customers in the paper & paperboard packaging market continue to provide a strong foundation for its business and EcoSynthetix will continue to pursue growth opportunities in this market, specifically in the more focused specialty paper and packaging categories.

3. **Drive growth in wood composites markets** – The Company continues its efforts in expanding its presence in the building materials space. Consumer and regulatory factors are creating demand for no-added formaldehyde ("NAF") products, and the Company believes it is well-positioned to capitalize on these trends to rapidly grow its share of the $15 billion annual wood composite binder market. Manufacturers are actively pursuing new technologies as alternatives to conventional formaldehyde binders. EcoSynthetix has expanded its relationship with its first key customer, won new lines and expanded the number of SKUs that use DuraBind. DuraBind replaces formaldehyde-based binders, achieving equal or better performance at competitive cost, while offering wood panel producers and their customers a significant reduction in carbon footprint compared to existing binder systems. The key targets within the wood composites market are highly engaged and the Company continues to make progress with its commercialization activities. The conversion of its robust pipeline of industrial trial opportunities into commercial accounts remains its highest priority.

4. **Drive growth in personal care markets –** The Company introduced its third product category in 2019, personal care. It signed an exclusive development, marketing and distribution agreement for its biopolymer with a leading global chemical company in the personal care space in 2019. Consumer demand for green ingredients is driving rapid change in the personal care market today and the Company's biopolymer plays directly into that shift. Its biopolymer is an all-natural film former and the first application in this new market is hair fixatives. Formulations using its biopolymer are designed to replace existing chemistries at a competitive price with the same or better performance and a meaningful reduction in carbon footprint compared to existing petroleum-based chemistries.

5. **Product Development** - The Company's product development efforts focus on applications for its existing EcoSphere and DuraBind biopolymer products in market segments where their value proposition is strong, and on further improvements to both product lines to further enhance value and expand addressable opportunities. The Company is also pursuing new product categories in specific markets where strong commercial interest from recognized leaders exist and where it can help companies make a meaningful step in their carbon footprint goals.

6. **Top line growth with a sustainable bottom line -** The Company expects to continue making investments in areas of the business that allow it to accelerate growth while retaining a disciplined approach toward its cost structure. The Company remains confident in its ability to execute on the opportunities it has identified in the wood composites, paper and paperboard packaging, and personal care markets. The Company has generated positive cash flow from operations in 2019 and 2020, and management believes it can leverage its next steps in growth and continued cost discipline to deliver long-term value to its shareholders.