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

The following management's discussion and analysis ("MD&A") dated March 9, 2015 is intended to assist the readers in 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, 2014. Financial data has been prepared in conformity with International Financial Reporting Standards ("IFRS").

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 for the fiscal year ended December 31, 2013.

# **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 2015. 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 market products successfully to our customers; that we will continue to face no direct competition; 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; and that we do not and will not infringe third party intellectual property rights. Some of our assumptions are based upon internal estimates and analyses 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; 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 inability to expand technology; 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 for the fiscal year ended December 31. 2013. 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.

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 9, 2015 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 use 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 is defined as consolidated net income (loss) before interest, income taxes, depreciation, amortization, accretion, and other non-cash charges 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. Bio-based materials are commonly used as inputs in industrial manufacturing for a wide range of end products. We have commercial bio-based products that have equal or superior performance and significant cost advantages compared to currently available petroleum-based products. Our strategy is to commercialize a broad range of bio-based polymer and monomer products within paper & paperboard, building materials, non-wovens and a wide range of other relevant markets. We have developed processes that leverage "green" technology to produce bio-based materials from natural feedstocks, such as potato, tapioca and dextrose from 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 industries: (i) a biopolymer nanosphere technology that has been fully scaled and validated; and (ii) a bio-based sugar macromer technology that has been validated on a pilot scale and is being developed for the pre-commercialization plant stage. Our two bio-based technology platforms have generated four product families to date, namely EcoSphere® biopolymers, EcoMer® biomonomers, EcoStix® bio-based pressure sensitive adhesives and DuraBind<sup>TM</sup> bioresins. Our lead product, EcoSphere biolatex® binders, has generated substantially all of our revenues from the paper & paperboard market to date. Our DuraBind engineered biopolymers are effective replacements for formaldehydebased binders in the building materials market. To date, this product has been developed for application in insulation and wood composites.

We market our products to customers with a compelling value proposition that includes:

- 1. Improved economics through overall reduction of cost of manufacturing and offering price stability
- 2. Providing equal or superior performance in comparison to synthetic latex and formaldehyde binders
- 3. Reduced carbon footprint by minimizing or eliminating petroleum based products

#### **Factors Affecting the Results of Operation**

#### Commercialization

Our customers typically go through three evaluation stages prior to commercial adoption of our products, including:

- (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 clients. 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 with which the potential customer is evaluating the product.

We are currently operating on a commercial scale in the coated paper and paperboard industry. Our lead product, EcoSphere® biolatex®binders, is used commercially by leading manufacturers within the coated paper and paperboard industry.

#### **Net Sales**

Our sales are primarily derived from the sale of our products to our customers. 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. Sales are recorded when significant risks and rewards of ownership have passed on to the buyer, which generally occurs at the time of shipment or delivery depending on the terms of the agreement.

#### 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, 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 primarily relates to salaries & benefits and other employee related costs which collectively represent greater than 50% of our expenses. In addition to this, selling, general and administrative expenses include: travel expenses, professional fees, occupancy related costs, insurance costs and marketing costs.

#### 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 consist of expenses incurred to develop and test our products. Salaries & benefits related to employees directly involved in research and development activities represent approximately 50% of total research and development expenses. In addition, research and development expenses includes costs related to consultants, facility costs, supplies and other costs directly associated with product development. These costs are partially offset by government grants related to such expenditures, if eligible.

#### **Share-based compensation**

The Company operates an equity settled share-based compensation plan under which the Company receives services from employees advisors, officers, contractors and consultants as consideration for equity instruments which include share options, performance-based share options (PSOs), restricted share units (RSUs) and deferred share units (DSUs) of the Company. Share-based compensation expense is recorded in accordance with the provisions under *IFRS 2*, *Share-based payment*.

## **Depreciation and amortization**

Depreciation and amortization included in operating expenses includes depreciation on property, plant and equipment not utilized in our production process and amortization of intangible assets.

## Foreign exchange loss (gain)

Foreign exchange represents the revaluation of monetary assets and liabilities denominated in foreign currencies. The change in foreign exchange revaluation 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 primarily related to the Canadian dollar.

#### Other Factors Affecting the Results of Operations and Financial Conditions

Our financial condition and results of operations are influenced by a variety of 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 petroleum substitutes for our products
- · Feedstock, other input and production costs

## **Results of operations**

The following is a summary of our results of operations for the three months ended and fiscal year ended December 31, 2014 and 2013:

|   | Three months en   | Chang             | e         |      |
|---|-------------------|-------------------|-----------|------|
|   | December 31, 2014 | December 31, 2013 | \$        | %    |
| Net sales                                     | 4,464,141         | 5,159,069         | (694,928) | -13% |
| Gross profit                                  | 740,502           | 895,594           | (155,092) | -17% |
| Loss from operations                          | (3,528,101)       | (3,723,691)       | 195,590   | -5%  |
| Net loss                                      | (3,450,295)       | (3,636,080)       | 185,785   | -5%  |
| Weighted average number of shares outstanding | 56,580,168        | 55,802,382        | 777,786   | 1%   |
| Basic and diluted loss per share              | (0.06)            | (0.07)            | 0.00      | -6%  |
| Adjusted EBITDA                               | (2,914,246)       | (3,264,621)       | 350,375   | -11% |

|   | Fiscal year end   | Change            | <u>e</u>    |      |
|---|-------------------|-------------------|-------------|------|
|   | December 31, 2014 | December 31, 2013 | \$          | %    |
| Net sales                                     | 18,841,745        | 22,229,846        | (3,388,101) | -15% |
| Gross profit                                  | 3,170,649         | 3,609,075         | (438,426)   | -12% |
| Loss from operations                          | (14,845,670)      | (15,122,318)      | 276,648     | -2%  |
| Net loss                                      | (14,514,589)      | (14,764,804)      | 250,215     | -2%  |
| Weighted average number of shares outstanding | 56,656,036        | 56,113,610        | 542,426     | 1%   |
| Basic and diluted loss per share              | (0.26)            | (0.26)            | 0.01        | -3%  |
| Adjusted EBITDA                               | (12,622,304)      | (12,434,328)      | (187,976)   | 2%   |

Net Sales – Net sales for the three months ended December 31, 2014 were \$4.5 million compared to \$5.2 million in the same period last year, a decrease of \$0.7 million or 13%. The reduction in sales was primarily due to lower volume as a result of the announced closure of the FutureMark Paper mill last quarter.

Net sales for the fiscal year ended were \$18.8 million compared to \$22.2 million, a decrease of \$3.4 million or 15%. The reduction in sales was primarily due to lower volume as a result of the closure of the FutureMark Paper mill last quarter, in addition to the closure of a customer's coated paper production line in EMEA announced in late 2013.

Gross profit – Gross profit for the three months ended was \$0.7 million compared to \$0.9 million in the same period of prior year, a decrease of \$0.2 million or 17%. The decrease in gross profit was primarily due to lower sales volume. Gross profit as a percentage of revenue decreased from 17.4% to 16.6% during the same period. Gross profit adjusted for non-cash items as a percentage of sales decreased from 22.9% to 21.6% in the current quarter primarily due to lower average selling prices partially offset by lower product costs.

Gross profit for the fiscal year ended December 31, 2014 was \$3.2 million compared to \$3.6 million in fiscal 2013, a decrease of \$0.4 million or 12%. The decrease in gross profit was principally due to lower sales volume, a \$0.3 million charge to cost of sales related to shipments to FutureMark paper and lower average selling prices partially offset by lower product costs. Gross profit as a % of sales increased during fiscal 2014 to 16.8% compared to 16.2% in prior year. Gross profit adjusted for non-cash items and the \$0.3 million charge, as a percentage of sales increased from 21.3% to 24.1% during the same period due to lower product costs, partially offset by lower average selling prices.

#### Operating Expenses

The following table sets forth the breakdown of our operating expenses by category during the three months and fiscal year ended December 31, 2014 and 2013:

|                                       | Three months      | Char              | nge       |       |
|---------------------------------------|-------------------|-------------------|-----------|-------|
|                                       | December 31, 2014 | December 31, 2013 | \$        | %     |
| Selling, general and administrative   | 2,389,968         | 2,659,958         | (269,990) | -10%  |
| Research and development <sup>1</sup> | 1,347,865         | 1,765,686         | (417,821) | -24%  |
| Share-based compensation              | 90,000            | (137,754)         | 227,754   | -165% |
| Depreciation and amortization         | 298,626           | 310,585           | (11,959)  | -4%   |
| Foreign exchange (gain)/loss          | 142,144           | 20,810            | 121,334   | 583%  |
| Total operating expenses              | 4,268,603         | 4,619,285         | (350,682) | -8%   |

|                                       | Fiscal year e     | Char              | ige       |      |
|---------------------------------------|-------------------|-------------------|-----------|------|
|                                       | December 31, 2014 | December 31, 2013 | \$        | %    |
| Selling, general and administrative   | 11,353,688        | 11,629,307        | (275,619) | -2%  |
| Research and development <sup>1</sup> | 5,297,023         | 5,467,870         | (170,847) | -3%  |
| Share-based compensation              | 456,000           | 956,225           | (500,225) | -52% |
| Depreciation and amortization         | 686,262           | 604,096           | 82,166    | 14%  |
| Foreign exchange (gain)/loss          | 223,346           | 73,895            | 149,451   | 202% |
| Total operating expenses              | 18,016,319        | 18,731,393        | (715,074) | -4%  |

<sup>&</sup>lt;sup>1</sup> For the purposes of this MD&A, selling, general and administrative expenses and research and development expenses excludes share-based compensation, depreciation and amortization and foreign exchange (gain) loss

Total operating expenses for the three months ended December 31, 2014 were \$4.3 million compared to \$4.6 million in the same period of prior year, a decrease of \$0.4 million or 8%. The decrease was primarily due to lower research and development costs and selling, general, and administrative expenses partly offset by increased share-based compensation expenses and foreign exchange losses.

Total operating expenses for the fiscal year ended December 31, 2014 were \$18.0 million compared to \$18.7 million during fiscal 2013, a decrease of \$0.7 million or 4%. The decrease was due to lower share-based compensation expense, selling, general and administrative expenses and research and development costs, partially offset by foreign exchange losses and increased depreciation and amortization expense.

Selling, general and administrative<sup>1</sup> – Selling, general and administrative expenses were \$2.4 million for the three months ended December 31, 2014 compared to \$2.7 million for the same period last year, a decrease of \$0.3 million or 10%. The decrease was principally due to lower variable incentive costs and the favourable impact of a weaker Canadian dollar relative to the US dollar.

Selling, general and administrative costs for the fiscal year ended December 31, 2014 were \$11.4 million compared to \$11.6 million in the same period last year, a decrease of \$0.3 million or 2%. The decrease was principally due to lower variable incentive costs and the favourable impact of a weaker Canadian dollar relative to the US dollar. These decreases were partly offset by \$0.4 million in bad debt expense, severance costs of \$0.3 million and a \$0.3 million tax charge related to a payroll audit.

Research and development<sup>1</sup>— Research and development costs for the three months ended December 31, 2014 were \$1.3 million compared to \$1.8 million in the same period of prior year, a decrease of \$0.4 million or 24%. Research and development costs for the fiscal year ended December 31, 2014 were \$5.3 million compared to \$5.5 million in fiscal 2013, a decrease of \$0.2 million or 3%. The decrease was primarily the result of the favourable impact of a weaker Canadian dollar relative to the US dollar and lower discretionary expenses.

Share-based compensation – Share-based compensation expense for the three months ended December 31, 2014 was \$0.1 million compared to a recovery of \$0.1 million, an increase of \$0.2 million. The increase was primarily due to a reversal of share-based compensation expense in the prior year of \$0.3 million after determining that the performance hurdles related to the RSUs and PSOs had not been achieved. Share-based compensation expense recorded in the current year primarily relates to the vesting of options that do not have performance hurdles which were issued in previous years.

Share-based compensation expense for the fiscal year ended December 31, 2014 was \$0.5 million compared to \$1.0 million in fiscal 2013, a decrease of \$0.5 million or 52%. The decrease relates to a lower expense related to the vesting of options that have no performance hurdles that were issued in previous years.

Depreciation and amortization – Depreciation and amortization for the three months ended December 31, 2014 remained comparable to the same period in prior year at \$0.3 million. Depreciation and amortization for the fiscal year ended December 31, 2014 was \$0.7 million compared to \$0.6 million in prior year, an increase of \$0.1 million or 14%. The increase principally relates to \$0.1 million of impairment losses related to redundant machinery and equipment recorded in the current period.

Foreign currency exchange (gain)/loss – Foreign exchange losses incurred for the three months ended December 31, 2014 was \$0.1 million compared to nil for the same period in prior year. Foreign exchange losses during the fiscal year ended December 31, 2014 were \$0.2 million compared to \$0.1 million in fiscal 2013, an increase of \$0.1 million. The increase in foreign exchange losses for the three months and fiscal year ended December 31, 2014 were primarily due to translation losses resulting from the revaluation of monetary assets and liabilities denominated in Canadian dollars. The Canadian dollar month end spot rate weakened from \$0.94 at December 31, 2013 to \$0.86 at December 31, 2014.

Loss from operations – Our loss from operations for the three months ended December 31, 2014 was \$3.5 million compared to \$3.7 million in the same period of prior year, a decrease of \$0.2 million or 5%. Our loss from operations for the fiscal year ended December 31, 2014 was \$14.8 million compared to \$15.1 million in fiscal 2013, a decrease of \$0.3 million or 2%. The decrease in loss from operations for the three months and fiscal year ended December 31, 2014 was due to lower operating expenses partly offset by lower gross profit.

Interest income – Interest income for the three months and fiscal year ended December 31, 2014 remained comparable to the same periods in fiscal 2013 as an increase in interest rates were offset by lower cash balances.

*Net Loss* – Our net loss for the three months ended December 31, 2014 was \$3.5 million, or \$0.06 per common share, compared to \$3.6 million, or \$0.07 per common share, in the same period of fiscal 2013, a decrease of \$0.2 million or 5%.

Our net loss for the fiscal year ended December 31, 2014 was \$14.5 million or \$0.26 per common share, compared to \$14.8 million or \$0.26 per common share, a decrease of \$0.3 million or 2%

## **Financial Condition**

|                           | December 31 | December 31 December 31, |              | е    |
|---------------------------|-------------|--------------------------|--------------|------|
|                           | 2014        | 2013                     | \$           | %    |
| Total current assets      | 75,355,310  | 91,207,662               | (15,852,352) | -17% |
| Total assets              | 87,098,065  | 104,106,859              | (17,008,794) | -16% |
| Total current liabilities | 1,571,976   | 3,947,385                | (2,375,409)  | -60% |

Total current assets – Total current assets at December 31, 2014 were \$75.4 million compared to \$91.2 million at December 31, 2013, a decrease of \$15.9 million or 17%. The decrease was principally due to lower cash of \$13.3 million, lower accounts receivable of \$1.4 million and inventory of \$1.0 million. The decrease in cash was primarily due to cash utilized in operations of \$12.3 million, capital asset purchases of \$0.4 million and the repurchase of common shares of \$0.8 million. Accounts receivable decreased primarily due to lower trade receivable balances resulting from lower sales volume. The decrease in inventory of \$1.0 million was primarily due to lower finished goods balances at December 31, 2014 compared to fiscal 2013.

Total assets – Total assets at December 31, 2014 were \$87.1 million compared to \$104.1 million at December 31, 2013, a decrease of \$17.0 million or 16%. The decrease was primarily due to lower current assets of \$15.9 million and lower property, plant and equipment of \$1.1 million due to \$1.5 million of depreciation partly offset by \$0.4 million of capital asset additions.

Total current liabilities – Total current liabilities at December 31, 2014 were \$1.6 million compared to \$3.9 million at December 31, 2013, a decrease of \$2.4 million or 60%. The decrease was primarily due to lower trade payable balances related to raw material receipts, lower variable incentive accrual and decreased commodity taxes payable.

## **Liquidity and Capital Resources**

We currently fund our business operations through cash flow generated from our operations and from existing cash which was provided through the initial public offering (IPO) in 2011. 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 at least the next 12 months.

Below is a summary of our cash flows provided by/ (used in) operating activities, financing activities and investing activities for the three months and fiscal year ended December 31, 2014 and 2013:

|   | Three months      | Change            | <del>)</del> |       |
|---|-------------------|-------------------|--------------|-------|
|   | December 31, 2014 | December 31, 2013 | \$           | %     |
| Cash used in operating activities               | (2,782,785)       | (3,277,731)       | 494,946      | -15%  |
| Cash used in investing activities               | (145,803)         | (161,302)         | 15,499       | -10%  |
| Cash (used in)/provided by financing activities | (68,013)          | 37,216            | (105,229)    | -283% |
| Net decrease in cash                            | (2,996,601)       | (3,401,817)       | 405,216      | -12%  |
| Beginning cash                                  | 70,242,571        | 83,908,774        | (13,666,203) | -16%  |
| Ending cash                                     | 67,245,970        | 80,506,957        | (13,260,987) | -16%  |

|   | Fiscal year e     | Change            | •            |       |
|---|-------------------|-------------------|--------------|-------|
|   | December 31, 2014 | December 31, 2013 | \$           | %     |
| Cash used in operating activities               | (12,260,395)      | (11,272,437)      | (987,958)    | 9%    |
| Cash used in investing activities               | (425,796)         | (1,889,374)       | 1,463,578    | -77%  |
| Cash (used in)/provided by financing activities | (574,796)         | 408,472           | (983,268)    | -241% |
| Net decrease in cash                            | (13,260,987)      | (12,753,339)      | (507,648)    | 4%    |
| Beginning cash                                  | 80,506,957        | 93,260,296        | (12,753,339) | -14%  |
| Ending cash                                     | 67,245,970        | 80,506,957        | (13,260,987) | -16%  |

Cash used in operating activities – Cash used in operating activities for the three months ended December 31, 2014 were \$2.8 million compared to \$3.3 million during the same period in fiscal 2013, a decrease of \$0.5 million or 15%. The decrease is due to lower net losses adjusted for non-cash items and lower investments in working capital compared to prior year. Net loss adjusted for non-cash items decreased \$0.3 million compared to prior year. Working capital at December 31, 2014 decreased \$0.1 million compared to September 30, 2014 as lower inventory, accounts receivable and government grant receivable were partly offset by trade payables and accrued liabilities. Working capital at December 31, 2014 increased \$0.1 million as lower trade payables and accrued liabilities were partly offset by lower inventory and accounts receivable balances compared to September 30, 2013. Cash used in operating activities during the fiscal year ended December 31, 2014 were \$12.3 million compared to \$11.3 million in fiscal 2013, an increase of \$1.0 million or 9%. The increase is primarily due to a higher investment in working capital compared to prior year. For the fiscal year ended December 31, 2014, lower trade payables and accrued liabilities were offset by lower accounts receivable, inventories and government grant receivable balances. For the fiscal year ended December 31, 2013, \$0.8 million of cash flow was generated primarily through lower accounts receivable and inventory.

Cash used in investing activities – Cash used in investing activities for the three months and fiscal year ended December 31, 2014 were \$0.1 million and \$0.4 million, respectively, compared to \$0.2 million and \$1.9 million for the same periods in prior year, respectively. Capital asset purchases in fiscal 2014 primarily related to our R&D equipment at our Centre of Innovation (COI) and enhancements related to efficiency at our production facilities. Capital asset purchases in fiscal 2013 primarily related to production capacity expansion.

Cash provided by/(used in) financing activities – Cash used in financing activities during the three months ended December 31, 2014 were \$0.1 million compared to nil during the same period of last year. The Company repurchased \$0.1 million of common shares related to the normal course issuers bid ("NCIB") in the current quarter.

Cash used in financing activities for the fiscal year ended December 31, 2014 were \$0.6 million compared to cash generated by financing activities of \$0.4 million, a change of \$1.0 million. During fiscal 2014, the Company repurchased \$0.8 million of common shares related to the NCIB which was partly offset by cash inflows generated from the exercise of common share options and warrants. During fiscal 2013, the cash flows generated by financing activities primarily related to the exercise of common share options and warrants.

## **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, warrants 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 so that we can 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.

## **Contractual Obligations**

Our contractual obligations include operating leases for premises and purchase obligations. The following table summarizes our cash commitments as December 31, 2014:

| Less than one year | \$6,  | 466,084 |
|--------------------|-------|---------|
| One – two years    |       |         |
| Two – three years  | + - , | ,       |
| Three – four years | Ψ.    | ,       |
| Thereafter         |       | ,       |
| Thoroator          | Ψ     | 001,040 |

During the normal course of operations, 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. As at

December 31, 2014, the Company was committed to purchases of feedstock in the approximate amount of \$10.7 million.

#### **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, 2014. 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.

We believe that past operating results and period-to-period comparisons should not be relied upon as an indication of our future performance. See "Risk Factors" outlined elsewhere in this document. Key factors that account for the fluctuations in quarterly results include the growth in the Company's revenue and the pace at which the Company's operating costs are expanding.

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

|   |              |               |             | Three mont  | hs ended (unau | dited)        |             |             |
|---|--------------|---------------|-------------|-------------|----------------|---------------|-------------|-------------|
|   | December 31, | September 30, | June 30,    | March 31,   | December 31,   | September 30, | June 30,    | March 31,   |
|   | 2014         | 2014          | 2014        | 2014        | 2013           | 2013          | 2013        | 2013        |
| Net sales                                     | 4,464,141    | 4,840,892     | 4,542,648   | 4,994,064   | 5,159,069      | 5,416,621     | 5,533,678   | 6,120,478   |
| Gross profit                                  | 740,502      | 494,479       | 952,679     | 982,989     | 895,594        | 836,873       | 820,482     | 1,056,126   |
| Loss from operations                          | (3,528,101)  | (4,084,208)   | (3,828,006) | (3,405,355) | (3,723,691)    | (4,051,221)   | (3,728,548) | (3,618,858) |
| Net loss                                      | (3,450,295)  | (4,000,178)   | (3,741,862) | (3,322,254) | (3,636,080)    | (3,960,546)   | (3,634,692) | (3,533,486) |
| Weighted average number of shares outstanding | 56,580,168   | 56,628,449    | 56,655,530  | 56,731,241  | 55,802,382     | 55,764,273    | 55,709,678  | 55,689,778  |
| Basic and diluted loss per share              | (0.06)       | (0.07)        | (0.07)      | (0.06)      | (0.07)         | (0.07)        | (0.07)      | (0.06)      |
| Adjusted EBITDA (1)                           | (2,914,246)  | (3,593,261)   | (3,274,361) | (2,840,436) | (3,264,621)    | (3,186,884)   | (3,076,975) | (2,905,848) |

|                                | Three months ended (unaudited) |               |             |             |              |               |             |             |
|--------------------------------|--------------------------------|---------------|-------------|-------------|--------------|---------------|-------------|-------------|
|                                | December 31,                   | September 30, | June 30,    | March 31,   | December 31, | September 30, | June 30,    | March 31,   |
|                                | 2014                           | 2014          | 2014        | 2014        | 2013         | 2013          | 2013        | 2013        |
| Net loss                       | (3,450,295)                    | (4,000,178)   | (3,741,862) | (3,322,254) | (3,636,080)  | (3,960,546)   | (3,634,692) | (3,533,486) |
| Depreciation and amortization  | 523,855                        | 379,947       | 433,645     | 429,919     | 596,824      | 387,337       | 365,697     | 381,907     |
| Share-based compensation       | 90,000                         | 111,000       | 120,000     | 135,000     | (137,754)    | 477,000       | 285,876     | 331,103     |
| Interest income                | (77,806)                       | (84,030)      | (86,144)    | (83,101)    | (87,611)     | (90,675)      | (93,856)    | (85,372)    |
| Adjusted EBITDA <sup>(1)</sup> | (2,914,246)                    | (3,593,261)   | (3,274,361) | (2,840,436) | (3,264,621)  | (3,186,884)   | (3,076,975) | (2,905,848) |

#### Notes:

Adjusted EBITDA is not a measure recognized under IFRS and does not have a standardized meaning prescribed by IFRS. See "IFRS and Non-IFRS Measures." The Company presents Adjusted EBITDA because the Company believes it facilitates investors' use of operating performance comparisons from period to period and company to company by backing out potential differences caused by variations in capital structures (affecting relative interest expense), the book amortization of intangibles (affecting relative amortization expense) and the age and book value of property and equipment (affecting relative depreciation expense). The Company also presents Adjusted EBITDA because it believes it is frequently used by securities analysts, investors and other interested parties as a measure of financial performance. 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 net interest expense, income taxes, depreciation, amortization, other non-cash expenses and charges deducted in determining consolidated net income (loss).

## **Adjusted EBITDA**

Adjusted EBITDA for the three months ended December 31, 2014 was a loss of \$2.9 million compared to a loss of \$3.3 million for the same period last year, a decrease of \$0.4 million or 11%. The decrease was due to lower operating expenses partly offset by lower gross profit.

Adjusted EBITDA for the fiscal year ended December 31, 2014 was a loss of \$12.6 million compared to \$12.4 million during the fiscal year ended December 31, 2013, an increase of \$0.2 million or 2%. The increase was due to lower gross profit partly offset by lower operating expenses.

## **Critical Accounting Policies and Estimates**

The preparation of the financial statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses and the disclosure of contingent assets and liabilities. These estimates and assumptions are affected by management's application of accounting policies and historical experience, and are believed by management to be reasonable under the circumstances. Such estimates and assumptions are evaluated on an ongoing basis and form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results could differ significantly from these estimates.

Management believes the following critical accounting policies reflect the more significant estimates and assumptions used in the preparation of our financial statements. We believe that there have been no significant changes in our critical accounting estimates for the time periods presented in our interim financial statements.

## Inventory

Inventory valuation assessments are performed periodically or when indicators of impairment are present. These assessments may involve significant uncertainty and are subject to change in that they could require the use of forward looking assumptions such as estimating the amount and timing of revenues as well as projecting the likelihood of an item becoming obsolete or unusable in the future. Recognition of inventory valuation provisions may have a material impact on our net income and the value of our inventory.

## Impairment of long-lived assets

Long-lived assets (including property, plant and equipment and intangible assets with definite lives) are reviewed for impairment at each reporting date to determine whether there is an indication that an asset may be impaired. If any indication exists we estimate the asset's recoverable amount. An asset's recoverable amount is the higher of an asset's or cash-generating units (CGU) fair value less costs to sell and its value in use and is determined for individual assets unless the asset does not generate cash inflows that are largely independent of those from other assets or group of assets. Where the carrying amount of an asset or CGU exceeds its recoverable amount, the asset is considered impaired and it is written down to its recoverable amount. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. Asset impairment assessments involves significant uncertainty and are susceptible to change. They require the use of forward looking assumptions such as sales, costs, foreign exchange rates and market growth rates. Recognition of impairment may have a material impact on our net income (loss) and the value of our long-lived assets. Whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable, a long-lived asset or asset group is required to be tested for possible impairment.

# Share-based compensation

The Company operates equity-settled share-based compensation plans under which the Company receives services from employees, directors, advisers, officers, contractors and consultants as consideration for equity instruments (share options, preferred stock options (PSOs), restricted share unit plan (RSUs), and deferred share units (DSUs) of the Company.

Each tranche of a share option award is considered a separate award with its own vesting period and recorded at fair value on the date of grant. The fair value of each tranche is measured at the date of grant using the Black-Scholes option pricing model. Compensation expense is recognized over the tranche's vesting period, based on the number of awards expected to vest, by increasing contributed surplus. The number of awards expected to vest is reviewed periodically, with any impact being recognized in the consolidated statement of operations. Any contribution paid by an employee or director on the exercise of share options is credited to common shares with any previously recognized compensation expense.

A PSO provides a right, but not an obligation, to purchase common shares of the Company at a stated price for a given period of time. PSOs vest at a rate of 33.33% per year following the grant date subject to the achievement of performance hurdles and can only be settled in common shares issued from treasury. In the event that performance exceeds targeted performance hurdles, vesting can accelerate for PSOs granted; however, in no

event can the cumulative vesting exceed 100%. All PSOs expire at the end of 10 years. The fair value of a PSO is recorded over the expected vesting period, subject to management's estimate of the achievement of the performance hurdles. The fair values of the PSOs are recognized as compensation expense over the vesting period with a corresponding increase to contributed surplus. Fair value is determined based on the average closing price of common shares on the Toronto Stock Exchange (TSX) five trading days immediately prior to the date as of which market value is determined. The Company has estimated the length of the expected vesting period at grant date based on the most likely outcome of the performance conditions. The Company will revise its estimate of the length of the vesting period, if necessary, if subsequent information indicates that the length of the vesting period differs from previous estimates and any change to compensation cost will be recognized in the period in which the revised estimate is made. Forfeitures are estimated at the grant date and are revised to reflect a change in expected or actual forfeitures.

The restricted share unit plan (RSU Plan) provides that restricted share unit awards (the RSUAs) may be granted by a committee that administers the RSU Plan to full-time employees, officers and eligible contractors of the Company or an affiliate in a calendar year as a bonus for services rendered to the Company as determined at the sole discretion of the Board. The number of restricted share units awarded will be credited to the participants' accounts effective on the grant date of the RSUs. Each RSUA entitles the holder to receive common shares issued from treasury of the Company. RSUs fully vest at the end of a three-year period subject to continued employment with the Company and the achievement of performance hurdles. The Company has estimated the probability of achieving the performance hurdles and will revise its estimate if subsequent information indicates that the expected outcome related to the achievement of the performance hurdles differs from previous estimates. Accordingly, any change to compensation cost will be recognized in the period in which the revised estimate is made. Forfeitures are estimated at the grant date and are revised to reflect a change in expected or actual forfeitures.

The deferred share unit plan (DSU Plan) provides for awards of DSUs to non-employee directors of the Company. Under the DSU Plan, non-executive directors may receive a grant of DSUs in satisfaction of their annual retainer. Each DSU is equivalent to one common share and vest on a quarterly basis. DSUs must be retained until the director leaves the Board, at which time the DSUs will be settled through common shares. In the event dividends are declared and paid, additional DSUs would be credited to reflect dividends paid on common shares. The number of DSUs to be awarded are determined based on the average closing price of the common shares on the TSX on five trading days immediately prior to the date as of which market value is determined. Compensation cost for DSUs granted under the DSU Plan is recorded as an expense with a corresponding increase in contributed surplus.

#### Valuation of Future Income Tax Assets

Significant management judgment is required in determining the valuation allowance recorded against our net income tax assets. We record a valuation allowance to reduce our future income tax assets recorded on our consolidated balance sheet to the amount of future income tax benefit that is more likely than not to be realized. We have recorded a full valuation allowance to reflect the uncertainties associated with the realization of our future income tax assets based on management's best estimates as to the certainty of realization.

#### Internal control over financial reporting

Management is responsible for establishing and maintaining a system of disclosure controls and procedures to provide reasonable assurance that all material information relating to the Company and its subsidiaries is gathered and reported to senior management on a timely basis so that appropriate decisions can be made regarding public disclosures. Management is also responsible for establishing and maintaining adequate internal controls over financial reporting to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial reports for external purposes in accordance with IFRS.

On January 1, 2014, the Company adopted the Committee of Sponsoring Organizations new internal control framework ("COSO 2013"), which did not have a material impact on the Company's internal controls over financial reporting and disclosure controls and procedures.

As required by National Instrument 52-109 (Certification of Disclosure in Issuer's Annual and Interim Filings), the Chief Executive Officer and the Chief Financial Officer have caused to be evaluated under their supervision the

effectiveness of such internal controls over financial reporting based on the criteria set out in the Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on the evaluation, they have concluded that the design and operation of the Company's internal controls over financial reporting were effective as at December 31, 2014.

In designing such controls, it should be noted that due to inherent limitations, any controls, no matter how well designed and operated can provide reasonable assurance of achieving the desired control objectives and may not prevent or detect misstatements. Additionally management is necessarily required to use judgment in evaluating controls and procedures.

#### **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 for the fiscal year ended December 31, 2013. The Company is not aware of any significant changes to the Company's risk factors from those disclosed at that time.

#### **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 9, 2015, the Company had the equivalent of 56,477,460 common shares issued and outstanding assuming conversion of all rights pursuant to the put/call agreement. In addition, 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 60,135,635 common shares issued and outstanding on a fully diluted basis as at March 9, 2015.

#### **Subsequent Events**

- I. On January 13, 2015, the Company announced a workforce reduction and recognized approximately \$0.4 million in associated severance costs as part of selling, general and administration expenses subsequent to December 31, 2014. The Company expects to realize approximately \$2 million in savings on an annualized basis as a result of this change.
- II. On February 18, 2015, the Company announced that John van Leeuwen, Co-Founder and Chief Executive Officer (CEO), is taking a leave of absence due to personal reasons. The Board of Directors has appointed Jeff MacDonald, Chief Operating Officer (COO), to serve as interim CEO.

#### **Outlook**

In 2015, we will focus on three key areas of the business in order to return to a growth trajectory:

## 1. Defined product pipeline

Over the next 12 months, we expect to commercialize new products in the paper and wood composites spaces. To achieve this, we are allocating capital and prioritizing resources on projects that can demonstrate both technical feasibility and commercial value in the short- and long-term.

Today, key wood composite accounts are running advanced-stage industrial-scale trials, a strong indication that we remain on track for commercial success in the near-term.

We will also continue to invest in a smaller number of longer-term development opportunities, including those in conjunction with our university partners.

#### 2. Diversified business verticals

We will continue to focus on expanding our foundation in paper and commercializing products in new markets,

including building materials.

We have prioritized two specific opportunities that could drive sales over the next 12 months, namely the commercialization of: (1) bio-based paper solutions with improved performance for latex coatings and beyond; and (2) formaldehyde-free solutions to meet regulatory reform in the building products space.

#### 3. Disciplined organizational growth

Achieving greater organizational efficiency remains a top priority in 2015 and beyond. This means redeploying human and financial resources and in some cases even scaling back infrastructure.

We recently reduced our workforce by 15 positions across the business. These changes will allow us to focus on high-priority projects that can create meaningful revenue over the next year and into the future.

Going forward, prudent resource allocation will be closely tied to our innovation engine and sales cycle; this approach will ensure that we remain product and bottom-line driven.

Our renewed focus on diversification, product innovation and disciplined organizational growth provides us with a strong foundation to return to our growth trajectory.

We remain highly confident of our opportunities ahead.