MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS of Plaintree Systems Inc.

March 31, 2019 and March 31, 2018

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

PLAINTREE SYSTEMS INC.

For the years ended March 31, 2019 and 2018

Date: July 24, 2019

The following discussion and analysis is the responsibility of management and has been reviewed by the Audit Committee of Plaintree Systems Inc. ("Plaintree" or the "Company") and approved by the Board of Directors of Plaintree. The Board of Directors carries out its responsibilities for the financial statements and management's discussion and analysis principally through the Audit Committee, which is comprised exclusively of independent directors.

The following discussion of the financial condition, changes in financial condition and results of operations of Plaintree is for the years ended March 31, 2019, and 2018. Historical results of operations, percentage relationships and any trends that may be inferred there from are not necessarily indicative of the operating results of any future periods. Unless otherwise stated, all amounts are in Canadian dollars following the requirements of the International Financial Reporting Standards ("IFRS"). The information contained herein is dated as of July 24, 2019 and is current to that date, unless otherwise stated. Management is responsible for ensuring that processes are in place to provide sufficient knowledge to support the representations made in the annual filings. Our Audit Committee and Board of Directors provide an oversight role with respect to all public financial disclosures by the Company, and have reviewed this MD&A and the accompanying financial statements.

W. David Watson II, President and Chief Executive Officer, and Lynn E. Saunders, Chief Financial Officer, in accordance with National Instrument 52-109 ("NI52-109"), have both certified that they have reviewed the annual financial statements and this MD&A ("the annual Filings") and that, based on their knowledge having exercised reasonable diligence, (a) the annual Filings do not contain any untrue statement of a material fact or omit to state a material fact required to be stated or that is necessary to make a statement not misleading in light of the circumstances under which it was made with respect to the period covered by the annual Filings; and (b) the annual financial statements together with the other financial information included in the annual Filings fairly present in all material respects the financial condition, financial performance and cash flows of the Company, as of the dates and for the periods presented in the annual Filings.

Investors should be aware that the inherent limitations on the ability of certifying officers of a venture issuer to design and implement, on a cost effective basis, Disclosure Controls and Procedures and Internal Controls over Financial Reporting as defined in NI 52-109 may result in additional risks to the quality, reliability, transparency and timeliness of interim and annual filings and other reports provided under securities legislation.

Caution Regarding Forward Looking Information

This MD&A of the Company contains certain statements that, to the extent not based on historical events, are forward-looking statements based on certain assumptions and reflect Plaintree's current expectations. Forward-looking statements include, without limitation, statements evaluating market and general economic conditions, and statements regarding growth strategy and future-oriented project revenue, costs and expenditures. Actual results could differ materially from those projected and should not be relied upon as a prediction of future events. A variety of inherent risks, uncertainties and factors, many of which are beyond Plaintree's control, affect the operations, performance and results of Plaintree and its business, and could cause actual results to differ materially from current expectations of estimated or anticipated events or results. Some of these risks, uncertainties and factors include the impact or unanticipated impact of: companies evaluating Plaintree's products delaying purchase decisions; current, pending and proposed legislative or regulatory developments in the *jurisdictions where Plaintree operates; change in tax laws; political conditions and developments; intensifying competition from established competitors and new entrants in the industry; technological change; currency value fluctuation; general economic conditions worldwide, including in China; Plaintree's success in developing and introducing new products and services, expanding existing distribution channels, developing new distribution channels and realizing increased revenue from these channels. This list is not exhaustive of the factors that may affect any of Plaintree's forward-looking statements. Plaintree undertakes no obligation to update any forward-looking statement to reflect events or circumstances after the date on which such statement is made, or to reflect the occurrence of unanticipated events, whether as a result of new information, future events or results otherwise. Readers are cautioned not to put undue reliance on forward-looking statements. Readers should also carefully review the risks concerning the business of the Company and the industries in which it operates generally described in the documents filed from time to time with Canadian securities regulatory authorities.*

Overview

Plaintree Systems Inc. ("Plaintree" or the "Company") was incorporated in Canada under the Canada Business Corporation Act and is publicly traded on the Canadian Securities Exchange ("CSE") under "NPT". The Company operates an Electronics division, consisting of Summit Aerospace USA Inc. ("Summit Aerospace") and a Specialty Structures division, consisting of the Triodetic business and Spotton Corporation. Plaintree is a diversified company with proprietary technologies and manufacturing capabilities in structural design and aerospace. The Triodetic business is a design/build manufacturer of steel, aluminum, and stainless steel specialty structures such as commercial domes, free form structures, barrel vaults, space frames, and industrial dome coverings. Summit Aerospace specializes in the high-end machining of super-alloys for the aircraft and helicopter markets. Spotton's business involves the design and manufacture of high-end custom hydraulic and pneumatic cylinders for the industrial, automation and oil and gas markets.

Until June 2017, the Specialty Structures division included Arnprior Fire Trucks Corp. ("AFTC") and on June 6, 2017, the Company completed the sale of assets and business of AFTC.

Until October 31, 2018, the Specialty Structures division included Madawaska Doors business. On March 31, 2019, the Company completed the sale of assets and the business of Madawaska Doors.

Until March 31, 2019, the Electronics division included the business of Hypernetics, a manufacturer of avionic components for various applications including aircraft antiskid braking, aircraft instrument indicators, solenoids, and permanent magnet alternators. The assets and liabilities associated with this business were held for sale as at March 31, 2019.

The address of the Company's registered office and principal place of business is 10 Didak Drive, Arnprior, Ontario.

Control Activities

The Company's Chief Executive Officer and Chief Financial Officer exercise reasonable diligence around the controls and procedures designed to provide reasonable assurance that financial information disclosed is recorded, processed and disclosed reliably.

Selected Annual Financial Information

The Company's consolidated financial statements are stated in Canadian dollars and are prepared in accordance with International Financial Reporting Standards ("IFRS"). The following table sets forth selected financial information from the Company's annual financial statements:

($000s, except per share amounts)

	March 31, 2019	March 31, 2018
	$	$
Revenue	17,003	14,276
Net earnings (loss) and comprehensive earnings (loss)	3,808	2,548
Net earnings (loss) attributed to common shareholders	2,342	1,082
Basic and diluted earnings (loss) per share	0.18	0.08

($000s, except per share amounts)

	March 31, 2019	March 31, 2018
	$	$
Total assets	16,167	12,184
Total liabilities	12,611	12,751
Long-term liabilities	7,948	7,679
Cash dividends declared per share	nil	nil

Results from Operations
($000s)

	2019	2018	Change from
	$	$	$
Revenue	**17,003**	14,276	2,727
Cost of sales	**13,355**	10,336	3,019
Gross margin	**3,648**	3,940	292
	21%	28%	
Operating expenses			
Research and development	**1,154**	1,143	11
Finance and administration	**1,376**	1,311	65
Sales and marketing	**536**	263	273
Bad debt	**-**	3	(3)
Loss on disposal of assets	**91**	32	59
Interest expense	**417**	324	93
Loss on foreign exchange	**28**	(17)	45
	3,602	3,059	543
Net earnings from continuing operations before non-recurring items	**44**	881	(837)
Financing fees (Note 17)	**164**	-	164
Net (loss) earnings from continuing operations before tax	**(120)**	881	(1,001)
Income tax expense (Note 16)			
Current	**3**	-	3
Deferred	**129**	-	129
	132	**-**	**132**
Net (loss) earnings from continuing operations	**(252)**	881	(1,133)
Gain on operations held for sale (Note 4, 16)	**4,060**	1,666	2,394
Net earnings and comprehensive earnings	**3,808**	2,547	1,261

Operations held for sale

Arnprior Fire Trucks Corp.

In May 2017, the company completed the sale of assets and business of Arnprior Fire Trucks Corp. (AFTC), which constituted the Company's business of the manufacturing of high-end fire and emergency vehicles (the "Fire Truck Business"), to 9584358 Canada Ltd. o/a Eastway Fire and Rescue Vehicles ("Eastway"). The Company and Eastway entered into an asset purchase agreement (the "Purchase Agreement"), dated May 25, 2017 pursuant to which Eastway agreed to acquire the Fire Truck Business from the Company as a going concern. The purchase price paid by Eastway consisted of nominal cash consideration and the obligation for Eastway to complete the outstanding existing fire truck contracts. Eastway leased the Company's premises to carry on the business until February 2018 when it ceased operations.

Madawaska Doors

As of October 2018, the Company deemed the assets of 9366920 Canada Inc (operating as Madawaska Doors) as held for sale. The business closed in the Company's third fiscal quarter. In March 2019, the company completed the sale of the assets and business of Madawaska doors. The Company's inventory, equipment and building were all included in the purchase price of $300,000. Net losses for the year of ($132,806) are included in the earnings (losses) from discontinued operations.

Hypernetics

In the fourth quarter of fiscal 2019, the Company began to actively market for sale its Hypernetics business, which manufactures avionic components for multiple applications. The business is available for sale in its present condition and it is anticipated that a sale will be completed in fiscal 2020. As a result, at March 31, 2019, the assets and associate liabilities have been classified and accounted for as held for sale on the consolidated statements of financial position and the operating results have been reported on the consolidated statements of comprehensive earnings as discontinued operations. The assets of Hypernetics are measured at the lower of their carrying amount less cost to sell.

Summarized financial information for Arnprior Fire Trucks Corp., Madawaska Doors and Hypernetics is shown below:

	March 31, 2019	March 31, 2018
	$	$
Assets held for sale		
Accounts receivable	618,901	469,725
Unbilled revenue	604,844	-
Inventory	562,770	1,034,422
Equipment	157,687	126,687
Assets of component held for sale	1,944,202	1,630,834
Liabilities held for sale		
Accounts payable and accrued	305,593	311,877
Deferred tax asset	2,207,830	-
Net assets held for sale	3,846,439	1,318,957

Revenues	2019	2018
	$	$
Hypernetics	4,701,547	4,131,208
Arnprior Fire Trucks Corp	-	291,903
9366920 Canada Inc dba Madawaska Doors	594,975	598,309
	5,296,522	5,021,420
(Gain) loss on sale of operations held for sale		
Hypernetics	(1,984,677)	(1,547,863)
Arnprior Fire Trucks Corp	-	(542,562)
9366920 Canada Inc dba Madawaska Doors	132,806	424,347
	(1,851,871)	(1,666,078)
Deferred income tax recovery	(2,207,830)	-
Net gain on operations held for sale	(4,059,701)	(1,666,078)

Business segment information

The Company's chief decision maker, the CEO, tracks the Company's operations as two business segments – the design, development, manufacture, marketing and support of electronic product, and the specialty structural products. The Company determines the geographical location of revenue based on the location of its customers. Of the total balance of $4,449,861 in property, plant and equipment, $1,980,782 is located in Canada and $2,469,079 in the United States. All of the Company's intangible assets are primarily located in Canada.

Revenue by division

	2019	2018
	$	$
Electronics	**3,251,348**	2,082,598
Specialty Structures	**13,751,172**	12,193,566
	17,002,520	14,276,164

Revenue by geographical location

	2019	2018
	$	$
Canada	**8,070,057**	6,671,879
United States	**3,555,512**	2,799,577
Spain	**2,882,004**	444,798
Chile	**2,484,381**	3,421,756
Argentina	**-**	938,154
Other	**10,566**	-
	17,002,520	14,276,164

Net (loss) earnings before taxes by division - Continuing operations

	2019	2018
	$	$
Electronics	**(519,408)**	(1,081,332)
Specialty Structures	**399,552**	1,962,768
	(119,856)	881,436

Product revenue concentration (customers with revenue in excess of 10%)

	2019	2018
Number of customers	**4**	1
% of total revenue	**10%, 13%, 16%, 17%**	16%

Assets by division - continuing operations

	2019	2018
Electronics	**5,771,721**	6,053,336
Specialty Structures	**6,243,099**	6,131,186

Revenues

Total product revenue from ongoing operations for fiscal 2019 was $17,002,520 compared to $14,276,164 in fiscal 2018.

Plaintree has two diversified business divisions: Specialty Structures and Electronics.

Plaintree's Electronics Division revenues from ongoing operations increased during fiscal 2019 to $3,251,348 in fiscal 2019 compared to $2,082,598 in fiscal 2018.

Plaintree's Specialty Structures Division revenues from ongoing operations increased to $13,751,172 in fiscal 2019 from $12,193,566 in fiscal 2018.

Gross Margin

Total gross margin decreased in fiscal 2019 to 21% compared to 28% in fiscal 2018. Gross Margin decline in fiscal 2019 was largely due to a significant Triodetic job, with a more profitable portion completed in fiscal 2018 and the less profitable portion completed in fiscal 2019.

Operating Expenses

Research and development expenses

Research and development expenses were $1,154,115 and $1,143,251 in fiscals 2019 and 2018, respectively. Research and development expenditures consist primarily of development engineering and personnel expenses.

Research and development expenses are expected to remain at comparable levels throughout fiscal 2020.

Finance and administration expenses

Finance and administration expenses were $1,376,186 and $1,310,718 in fiscals 2019 and 2018, respectively. Finance and administration expenses consist primarily of costs associated with managing the Company's finances, which included financial staff, legal and audit activities. Expenses increased in fiscal 2018 due to increased legal and consulting fees associated with the Company's financing and banking activities.

Finance and administration expenses are expected to remain at comparable levels throughout fiscal 2020.

Sales and marketing expenses

Sales and marketing expenses were $536,463 and $263,202 in fiscals 2019 and 2018, respectively. These expenses consisted primarily of personnel and related costs associated with Company's sales and marketing departments, which include sales commissions, advertising, travel, trade shows and other promotional activities. Sales and marketing expenses increased in fiscal 2019 due to expansion of the Triodetic sales personnel and marketing activities. This follows dramatic increases in the markets for the Triodetic products.

Expansion of the marketing and sales efforts are expected to continue in fiscal 2020.

Interest expense

Interest expense consists of interest incurred on bank and related party debt. Interest expenses amounted to $417,219 and $323,683 for fiscals 2019 and 2018, respectively. During fiscal 2018, a related party refinanced it's approximately $345,000 mortgage on one of its properties, increasing the mortgage to $900,000. Plaintree guaranteed the loan and granted a security interest over its assets as security for this guarantee. The related party used a portion of the proceeds from the refinancing to loan $554,447 to the Company. The related party loan bore interest at a rate of 14% per annum until March 31, 2019, when it was refinanced by the related party's bank. Interest is payable monthly and the principal is due on maturity. All other related parties with loans to the Company agreed to discontinue interest payments accruing on balances as of April 1, 2016.

Gain on foreign exchange

The Company reported loss (gain) on foreign exchange of $27,541 and $(17,112) for fiscals 2019 and 2018, respectively. The gain/loss on foreign exchange represents the gain/loss, realized or unrealized, of transactions and year end foreign balances that are completed in currencies other than the Company's reporting currency.

Net (loss) earnings, Comprehensive earnings and Net earnings Attributable to Common Shareholders

Net earnings and comprehensive earnings for fiscal 2019 was $3,808,027 and $2,547,514 in fiscal 2018. Net income attributed to common shareholders is calculated by reducing net income by the $1,466,000 cumulative dividends that accrue annually on the Class A preferred shares. The cumulative dividends accrue at 8% per annum on the face value of the $18,325,000 for the Class A preferred shares and as March 31, 2019 the accrued and unpaid dividends on the Class A preferred shares were $15,326,000 (March 31, 2018 - $13,860,000).

Quarterly Results
The following table sets out selected unaudited consolidated financial information for the last eight quarters in fiscals 2019 and 2018:

Quarters ended *(unaudited, in $000s except per share data)*

	Mar-31 2019 Q4 2019	**Dec-31 2018 Q3 2019**	**Sep-30 2018 Q2 2019**	**Jun-30 2018 Q1 2019**	**Mar-31 2018 Q4 2018**	**Dec-31 2017 Q3 2018**	**Sep-30 2017 Q2 2018**	**Jun-30 2017 Q1 2018**
	$	$	$	$	$	$	$	$
Revenue (1)	3,472	3,758	6,378	3,395	5,366	3,460	2,986	2,464
Net earnings (loss) and total comprehensive earnings (loss)	1,877	576	1,234	121	802	817	576	353
Net earnings (loss) attributed to common shareholders	1,511	210	868	(246)	436	451	210	(14)
Basic and diluted earnings (loss) per share	0.12	0.02	0.07	(0.02)	0.03	0.03	0.02	(0.00)

(1) Revenue of discontinued operations has been removed for all periods.

Liquidity and Capital Resources

($000s)

	March 31, 2019	March 31, 2018	Change
	$	$	$
Cash (net cash deficit)	(811)	(315)	(496)
Working Capital	6,659	2,117	4,542

	March 31, 2019	March 31, 2018	Change
	$	$	$
Net cash (used in) provided by:			
Operating activities	752	636	116
Investing activities	(480)	(270)	(210)
Financing activities	(769)	(356)	(413)

Cash

As at March 31, 2019, the Company was in a net cash deficit balance of $810,791, an increase of $496,081 from a cash deficit balance of $314,710 on March 31, 2018.

Working Capital

Working capital represents current assets less current liabilities. As at March 31, 2019, the Company had working capital of $6,658,747 compared to a working capital of $2,117,174 at March 31, 2018. Improvement in working capital is primarily the result of a decrease in deferred revenue and short-term debt and a deferred tax asset associated with the assets held for sale.

Operating activities

Cash provided by operating activities for fiscal 2019 was $752,030 representing an increase of $116,032 from cash provided of $635,998 for the respective period during fiscal 2018. Cash provided by operating activities during fiscal 2019 was primarily the result of profitability.

Investing activities

Cash used in investing activities for fiscal 2019 was $(479,518) representing an increase of $209,413 from cash used in investing activities of $(270,105) in the respective period during fiscal 2018. The increase in cash used during fiscal 2019 was primarily due to the payments to acquire capital.

Financing activities

Cash used in financing activities for fiscal 2019 was $(768,592) representing an increase of $412,555 from cash used of $(356,037) during fiscal 2018. Cash used in financing activities during the fiscal 2019 relates primarily to repayment of long-term debt.

Outlook

The Company has in place a credit facility of up to $3,000,000 through its bank based on acceptable trade receivables and inventory. The total amount available to the Company as at March 31, 2019 was $2,664,697 of which $988,313 was in use and a letter of credit in the amount of US$256,200 ($383,785 CAD) leaving $1,292,599 available. The Company through its bank has in place a credit facility of up to $2,000,000 for the issuance of standby letters of credit and/or letters of guarantee insured by Export Development Corporation ("EDC") Performance Security Guarantee. The Company has in place a credit facility of up to $1,000,000 to assist with financing of new and used equipment. Subsequent to year-end, $488,597 (US$364,000) was used. During fiscal 2019 the Company incurred professional fees of $164,329 related to the modification of its banking relationship and related short-term borrowings. The Company's analysis of forecasted sales and expenses indicate improvement in both sales and cash flow as a result of contracts bid and/or signed, and their expected margins on these projects. As a result, the Company believes that it has sufficient cash resources to meet its obligations, beyond the next 12 months.

Due to related parties

	2019	2018
	$	$
Due to senior officers and directors	**4,083,141**	4,309,565
Dividends payable	**60,000**	60,000
Due to Targa Group Inc., convertible debentures	**247,672**	247,672
Due to Tidal Quality Management Inc.	**824,209**	762,073
Due to Targa Group Inc., line of credit	**449,763**	532,763
Due to Targa Group Inc., demand loan interest	**201,393**	201,393
	5,866,178	6,113,466
Less: current portion	**(50,000)**	(356,000)
	5,816,178	5,757,466

Targa Group Inc. and Tidal Quality Management Inc. are companies under common control.

As at March 31, 2019, a balance of $4,083,141 ($2,847,507 principal and $1,235,634 interest) ($4,273,565 ($3,037,931 principal and $1,235,634 interest) in 2018) remained owing to senior officers of the Company. The senior officers agreed to discontinue interest payments accruing on balances as of April 1, 2016. As at March 31, 2019, a balance of $NIL ($36,000 in 2018) remained owing to a director of the Company for additional consulting services. During the year payments in the amount of $190,423 were repaid to senior officers. The balance of $4,083,139 is classified as long-term as the parties have postponed and subordinated their loans while certain facilities remain outstanding.

On July 14, 2011, the board of directors of the Company declared a cash dividend of $10.91405 per Class A preferred share ($200,000 in the aggregate) payable on July 22, 2011, to the holders of record at the close of business on July 18, 2011. The Class A preferred shares are held by related parties and are entitled to annual cumulative dividends of 8% on the $1,000 redemption amount of the Class A preferred share. An amount of $60,000 ($60,000 in 2018) of the dividend remains outstanding as at March 31, 2019. The balance is classified as long-term as the related party has agreed not to demand payment before August 2020.

As at March 31, 2019, interest in the amount of $247,672 ($247,672 in 2018) on a loan from Targa remains outstanding as of March 31, 2019. The related party has agreed not to demand payment before August 2020 and, accordingly, the amount is classified as long-term.

As at March 31, 2019, a balance of $269,762 ($207,626 in March 31, 2018) remains outstanding on a loan from Tidal, a company controlled by Targa. The party agreed to discontinue interest accruing on unpaid balances as at April 1, 2016. Until then, the interest was at bank prime plus 2%. The related party has agreed not to demand payment before August 2020 and, accordingly, the amount is classified as long-term.

On May 31, 2017, Tidal refinanced it's approximately $345,000 mortgage on one of its properties, increasing the mortgage to $900,000. Plaintree guaranteed the Tidal loan and granted a security interest over its assets as security for this guarantee. Tidal used a portion of the proceeds from the refinancing to loan $554,447 to the Company. Until March 31, 2019 the related party loan incurred interest at a rate of 14% per annum. The balance is classified as long-term as the related party has agreed not to demand payment before August 2020.

The Company has a revolving line of credit of up to $1,000,000 with Targa. Under the loan agreements, all amounts advanced to the Company are payable on demand and bear interest at bank prime plus 2%. The Targa Credit Line is secured by a security interest granted over the assets of the Company. As at March 31, 2019, $207,165 ($290,165 in 2018) remained outstanding on the line of credit with accumulated interest of $242,598 ($242,598 in 2018) for a balance of $449,763 ($532,763 in 2018). Targa has agreed that it will not demand repayment before August 2020 and, accordingly, the amounts are classified as long-term.

Accumulated interest in the amount of $201,393 ($201,393 in 2018), on a prior year demand loan from Targa remains outstanding as of March 31, 2019. The party has agreed not to demand repayment before August 2020 and, accordingly, the amount is classified as long-term

Facilities

The Company leases a 135,500 sq. /ft. building at 10 Didak Drive in Arnprior, Ontario.

The Company through its wholly-owned US subsidiary owns a 16,300 sq. ft. manufacturing facility in Pocono Summit, PA.

New Standards effective April 2019

IFRS 16 – Leases

IFRS 16 Leases ("IFRS 16") The IASB issued a new standard, IFRS 16 on January 13, 2016, which supersedes IAS 17 Leases. The new standard brings most leases on the balance sheet for lessees under a single model and eliminates the distinction between operating and finance leases. Lessor accounting remains largely unchanged. The new standard will come into effect for periods beginning on or after April 1, 2019. The Company is currently evaluating the impact of IFRS 16 on its consolidated financial statements.

Summary of Outstanding Share Data

As at July 24, 2019, the following equity instruments of the Company were issued and outstanding:

Common Shares: 12,925,253

Class A Preferred Shares: * 18,325

* The Class A Preferred shares provide an 8% cumulative dividend based on a value of $1,000 per share, are redeemable at the option of the Company at any time at $1,000 per share plus accrued dividends and they are non-voting.

Convertible Debentures:** $nil principal value

**The Company has issued various tranches of convertible debentures to related parties for total outstanding value at March 31, 2019 of $247,672 in accrued interest only.

Options:*** None

Additional information relating to the Company may be found on SEDAR at www.sedar.com or the Company's website at www.plaintree.com.