CARL DATA SOLUTIONS INC.

MANAGEMENT'S DISCUSSION & ANALYSIS
FOR THE YEAR ENDED JUNE 30, 2017

General

This Management's Discussion and Analysis ("**MD&A**") of CARL Data Solutions Inc. ("**CARL**," or the "**Company**") is dated October 20, 2017 and provides a review of the Company's financial results, from the viewpoint of management, for the year ended June 30, 2017.

The following information should be read in conjunction with the Company's audited consolidated financial statements with accompanying notes and related MD&A for the fiscal year ended June 30, 2017 ("**F2017**"), which are the responsibility of management and were prepared in accordance with International Financial Reporting Standards ("**IFRS**").

All dollar figures are expressed in Canadian dollars unless otherwise stated. These documents and additional information on the Company are available on the SEDAR website at www.sedar.com.

Cautionary Statement Regarding Forward-Looking Statements

Certain statements contained in this document constitute "forward-looking statements". When used in this document, the words "may", "would", "could", "will", "intend", "plan", "propose", "anticipate" and "believe", are intended to identify forward-looking statements. Such statements reflect the Company's "forecast", "estimate", "expectation" and similar expressions as they relate to the Company's current views with respect to future events and are subject to certain risks, uncertainties and assumptions.

The forward-looking statements contained in this MD&A are made as of the date hereof and represent the Company's views as of the date of this document. While the Company believes that the expectations reflected in the forward-looking statements and information contained herein are reasonable, no assurance can be given that these expectations, or the assumptions underlying these expectations, will prove to be correct. The Company acknowledges that subsequent events and developments may cause the views expressed herein to change, however, the Company has no intention and undertakes no obligation to update, revise or correct such forward-looking information, whether as a result of new information, future events or otherwise, except as required by applicable securities law. Therefore, there can be no assurance that forward-looking information contained herein will prove to be accurate as actual results and future events could differ materially from those expected or estimated in such statements. Accordingly, readers should not place undue reliance on forward-looking information.

Description of Business

CARL Data Solutions Inc. (formerly Carl Capital Corp.) was incorporated under the Business Corporations Act (British Columbia) on January 17, 2014. CARL together with its wholly owned subsidiaries, Extend to Social Media Inc. ("**ETS**") and FlowWorks Inc. ("**FlowWorks**"), "**CARL**" or the "**Company**". CARL is a developer of Big-Data-as-a-Service ("**BDaaS**")-based solutions, providing next generation data collection, storage and analytic solutions for data-centric companies.

CARL is a public company that is listed on the Canadian Securities Exchange ("CSE") (under the symbol: CRL), the Frankfurt Stock Exchange (under the symbol: 7C5) and the OTC Pink (under the symbol: CDTAF). The head office and principal address of the Company is located at Suite 488 – 1090 West Georgia Street, Vancouver, British Columbia, V6E 3V7.

ETS was incorporated in the province of British Columbia on January 30, 2013, and its principal business is the collection of marketing data in the social network marketing industry. ETS is developing a software technology that enables companies to reward existing customers for promoting or referring products and services to their social and business networks. CARL acquired all of the outstanding share capital of ETS on May 30, 2014.

FlowWorks, incorporated in Washington State, USA on May 5, 2010, is a company that specializes in providing clients with a suite of web-based water management software applications to analyze data through a variety of collection, analysis, and reporting tools. CARL acquired all of the outstanding share capital of FlowWorks on October 13, 2015.

CARL is improving the scalability and functionality of the acquired companies and building a universal platform for other data-centric applications to dramatically improve overall efficiency and end product offering for its customers. CARL is creating a virtually unlimited data storage environment from which informative visual representations of data can be created. The goal of the Company is to deliver a comprehensive data management solution for datasets of any size, type and complexity. CARL's Enterprise Application Platform has been designed to have the unique capacity to collect and store enormous data sets, and organize and display this information in an intuitive cloud based user interface. CARL offers storage for both structured and unstructured data sets from almost any data source (e.g. CRM, Accounting, Marketing, POS, Log Files, Web Services etc.).

Going Concern

This MD&A and the audited consolidated financial statements have been prepared on the basis that the Company will remain a going concern which contemplates the realization of assets and the satisfaction of liabilities in the normal course of business for the Company's next fiscal year. The Company's ability to continue as a going concern is dependent upon its ability to generate future profitable operations and/or to obtain the necessary financing to meet its obligations and repay its liabilities arising from normal business operations when they come due.

The Company has not achieved profitable operations to date. During the year ended June 30, 2017, the Company incurred a net loss of $4,616,764, and as at June 30, 2017, the Company had a deficit of $8,981,089. The Company had negative working capital of $801,163 as at June 30, 2017, and the Company expects to incur further operating losses for the foreseeable future in the development of its business and expects that it will require additional financing. The Company's ability to continue as a going concern is dependent upon its ability to find, acquire and develop various businesses with growth potential, and its ability to obtain the necessary financing to carry out this strategy and to meet its corporate overhead needs and discharge its liabilities as they come due. Although the Company has been successful in the past in obtaining financing, there is no assurance that it will be able to obtain adequate financing in the future or that such financing will be on terms advantageous to the Company. Therefore, this indicates a material uncertainty that may cast significant doubt about the Company's ability to continue as a going concern.

As a result of the above, realization values may be substantially different from the carrying values shown and the audited consolidated financial statements do not give effect to adjustments that would be necessary to the carrying values and classification of assets and liabilities should the Company be unable to continue as a going concern.

Selected Financial Information

The following sets out selected consolidated financial information of the Company for the period indicated, which has been derived from the Company's audited consolidated financial statements. Users of this information should read the following in conjunction with those statements and the previously filed annual statements.

(Expressed in Canadian Dollars)	**For the year end June 30, 2017**	For the year end June 30, 2016	For the year end June 30, 2015
Total Revenues	**$ 1,190,399**	$ 808,261	$ 26,250
Total Expense	**$ 5,807,163**	$ 4,738,781	$ 590,976
Net Loss	**$ (4,616,764)**	$ (3,790,289)	$ (512,726)
Basic and Diluted Loss per Share	**$ (0.12)**	$ (0.14)	$ (0.03)

Overall Performance

Acquisition of FlowWorks Inc.

On October 13, 2015, CARL completed its 100% acquisition of FlowWorks Inc. ("FlowWorks"), by issuing 7,629,397 common shares of the Company to two shareholders of FlowWorks. One shareholder of FlowWorks, holding approximately 11% of FlowWorks, has dissented to the transaction. The Company agreed to assume any obligation in connection with payment of fair value for such dissenting shares and all expenses in connection with the dissenter's rights.

FlowWorks is the owner of a Software-as-a-Service web-based online application that provides its clients with advanced tools to analyze environmental data. The application is a powerful platform of data collection, monitoring, analysis and reporting tools. The application is currently focused on water management. The business model of FlowWorks is consistent with the business model and strategy of CARL. FlowWorks demonstrates traits which align with CARL's values and direction. Further, the software application developed by FlowWorks has potential for additional applications.

The purchase price allocation for FlowWorks is detailed in note 5 of the accompanying audited consolidated financial statements for the year ended June 30, 2017.

Convertible Debenture Financing

During the year ended June 30, 2016, the Company completed a senior secured collateralized convertible note ("Note") financing of up to $2,000,000 to be received in tranches. All tranches of the Note bear interest of 10% (12% if in default) per annum, calculated and payable monthly, in advance. Each tranche matures within two years of issuance.

On June 30, 2016, the Company issued an initial tranche of $500,000 incurring total transaction costs of $432,075. The principal, at the option of the holder, will be convertible into common shares of the Company at a conversion price of $0.45 per common share, subject to adjustment as per the agreement.

If at any time following four months after the issue date of any Note, the closing price of the Company is $0.75 per share for 30 consecutive trading days with a daily weighted-average trading volume of more than 400,000 shares, the Company may force the conversion of one-half of the aggregate principal.

From and after the one-year anniversary of any Note, the Company, at its option, may prepay, without notice or penalty, the principal amount of all the outstanding Notes in full or in part together with any accrued and unpaid interest.

Each tranche of the Note contains both an equity component, being the holder's conversion right, and a liability component which are presented separately on the consolidated statement of financial position. The Company allocated the transaction costs to the debt and equity components based on the relative fair values of the Note and the equity conversion option. Interest and transaction costs are recognized by accreting the liability component to its face value over the term of the Note.

The Company paid a non-refundable commitment fee, included in total transaction costs, of $50,000 and 375,000 shares. Total commitment fees of $237,500, applicable to the full facility, were initially incurred and deferred. These fees are recognized as part of the initial carrying values of the each tranche of debt issued based on the relative percentage of each tranche face value to the total facility value of $2,000,000. At June 30, 2017 $131,813 (2016 – $178,125) is recorded in prepaid expenses. The Company shall issue 800,000 bonus shares on the closing date and on the date of conversion. 400,000 of these bonus shares were issued on the closing date and included in total transaction costs.

In the event the Company does not issue Notes in accordance with the terms of the agreement, the Company is subject to a break fee of $100,000. At any time after issuance, the holder has the right to convert the principal amount of the Note at the above conversion price.

During the year ended June 30, 2017, the Company entered into an amendment allowing the conversion at the price of $0.34 per share and of the initial $500,000 tranche, $405,000 was converted through the issuance of 1,191,176 common shares. The Company recognized $458,012 to the statement of loss and comprehensive loss as a result of the conversion. In connection with the conversion, the Company was required to issue 400,000 common shares to the holder with a fair value of $156,000 to settle amounts payable of $136,000. The 400,000 common shares issued represent the balance of the bonus shares not issued during fiscal 2016.

During the year ended June 30, 2017 total finance expenses of $759,349 were charged to profit or loss (2016 - $109,456). The finance fees are comprised of bonus shares $136,000; administration fees $88,750; finance fees $31,742 and guarantee fees of $502,857. The fees for 2016 comprise primarily of due diligence fees.

During the year ended June 30, 2017, the Company initiated issuances of the Company's convertible notes and received $390,000 in proceeds, of which $87,189 was recognized to equity upon receipt. During fiscal 2017 issuances of Notes with face values and issuance dates were completed as follows: September 1, 2016 - $160,000; September 30, 2016 - $150,000 and April 30, 2017 - $80,000.

Issuance of Share Capital

Subsequent to the year ended June 30, 2017, the Company issued common shares as follows:

- On July 4, 2017, the Company issued 888,888 common shares of which, 444,444 were issued to escrow with a portion to be released every three months until April 1, 2020.

- On September 5, 2017, the Company completed the first tranche of a non-brokered private placement by issuing 2,055,000 common share units (each, a "Unit") at a price of $0.26 per unit for gross proceeds of $534,300. Each Unit was comprised of one common share and one common share purchase warrant, each warrant being exercisable at a price of $0.40 per share for a period of two years from issuance and are subject to accelerated expiration in the event that shares trade at a price greater than $0.75 per share for ten consecutive trading days.

  In connection with the offering, the Company paid a cash commission of $42,744 and issued 164,400 non-transferrable unit finder's warrants. Each finder's warrant entitles the holder to purchase one finder's unit at a price of $0.33 per finder's unit for a two-year period from the closing date. Each finder's unit contains one common share and one common share purchase warrant, exercisable at $0.40 for a period of two years from the closing date.

- On September 5, 2017, the Company settled loans in the aggregate amount of $679,046 by issuing 2,611,714 Units at a deemed price of $0.26 per Unit.

- On September 5, 2017, the Company settled an aggregate amount of $291,022 in future royalty payments due to convertible debenture noteholders by issuing a total of 1,119,316 Units at a deemed price of $0.26.

During the years ended June 30, 2016 and 2017, the Company issued common shares as follows:

- On May 2, 2017, the Company issued 16,000 common shares through the exercise of warrants for gross proceeds of $5,600.

- On March 17, 2017, the Company issued 998,636 common shares through the exercise of stock options for gross proceeds of $109,850.

- On October 24, and November 23, 2016, the Company issued 727,611 common shares to settle debts of $247,388.

- On November 23, 2016 the Company issued 1,191,176 common shares for the conversion of $405,000 in convertible debentures and a further 400,000 common shares as bonuses related to the conversion.

- On October 24, 2016, the Company completed a non-brokered private placement whereby the Company issued 2,500,000 units at a price of $0.36 per unit for gross proceeds of $900,000. Each unit comprised of one common share and one-half of one transferable share purchase warrant. Each warrant entitles the holder thereof to acquire one additional share at a price of $0.60 for two years. No amount was allocated to the warrants portion of the units, on a residual value basis, as the share price on issuance was in excess of the unit price. In connection with the offering, the Company issued 200,000 finder units under the same terms as above. The Company recognized a non-cash issue cost of $13,305 with a corresponding increase in reserves. This expense was calculated using the Black-Scholes option valuation model with the following assumptions: Risk-free rate, 0.49%; Dividend yield, 0%; Expected volatility, 70%; and Expected life, 2 years.

- On October 12, 2016, the Company issued 25,000 bonus common shares to a consultant for recruitment services.

- On September 28, 2016, the Company issued 750,000 common shares at a price of $0.40 per share to settle $300,000 of an amount owed to an arm's length party. The Company recorded a decrease in reserves of $22,500 based on the difference between the market value of the shares on the settlement date and the value of the amount settled.

- On September 16, 2016, the Company issued 750,000 common shares at a price of $0.40 per share to settle $300,000 of an amount owed to a non-arm's length party. The Company recorded a decrease in reserves of $15,000 based on the difference between the market value of the shares on the settlement date and the value of the amount settled.

- On August 23 and September 26, 2016, the Company issued a total of 406,600 common shares through the exercise of share purchase warrants for gross proceeds of $65,910.

- On July 20, 2016, the Company issued 949,664 common shares including 881,887 common shares at a price of $0.48 per share and 67,777 common shares at a price of $0.45 per share to settle $453,807 of debt and amounts owed various arm's length and non-arm's length parties. The Company recorded a decrease in reserves of $40,019 based on the difference between the market value of the shares on the settlement date and the value of the debt/amount settled

- On June 29, 2016, the Company issued 400,000 bonus common shares at a price of $0.59 to the purchasers of the $500,000 convertible note financing.

- On May 31 and June 10, 2016, the Company issued a total of 210,080 common shares through the exercise of share purchase warrants for gross proceeds of $54,076.

- On April 22, 2016, the Company issued 375,000 common shares at a price of $0.50 per share as partial settlement of a commitment fee for a convertible note financing.

- On January 21, 2016, the Company issued 1,109,334 units, at a price of $0.30 per unit, to settle short term loans and accrued interest of $332,800. Each unit consisted of one common share and one-half share purchase warrant. Each full warrant is exercisable at $0.45 for a period of 24 months from the date of closing. The warrants are subject to an acceleration provision such that the Company has the right to accelerate the expiry of the warrants to a 30-day period if the Company's common shares trade at a price greater than $0.75 for a period of ten consecutive trading days.

- On December 29, 2015, the Company issued 224,000 units pursuant to the first tranche of a non-brokered private placement at a price of $0.30 per unit for gross proceeds of $67,200. Each unit consisted of one common share and one-half share purchase warrant. Each warrant is exercisable at a price of $0.45 for a period of two years. The warrants are subject to an acceleration provision such that the Company has the right to accelerate the expiry of the warrants to a 30-day period if the Company's common shares trade at a price greater than $0.75 for a period of ten consecutive trading days.

- In connection with the tranche, the Company issued finders' warrants to purchase 6,720 common shares. The finder warrants are exercisable at a price of $0.30 per common share until December 31, 2016. The Company recognized a non-cash issue cost of $1,036 with a corresponding increase in reserves and paid cash finder's fees of $2,016. This expense was calculated using the Black-Scholes option valuation model with the following assumptions: Risk-free rate, 0.48%; Dividend yield, 0%; Expected volatility, 70%; and Expected life, 1 year.

- On December 23, 2015, the Company issued 250,000 common shares at a price of $0.30 per share as a financing fee for the commencement of due diligence to undertake a private placement financing.

- On July 7, 2015, the Company completed a non-brokered private placement and issued 440,000 common shares at a price of $0.25 per common share for gross proceeds of $110,000. No finder's fees were associated with the placement.

Short-Term Loans

During the year ended June 30, 2017, the Company was advanced $377,900 in short term loans from unrelated parties. The loans were unsecured, non-interest bearing, and repayable upon demand. The full balance of the loans remain outstanding as at June 30, 2017.

During the year ended June 30, 2016, the Company entered into the following short term loan agreements:

- A director of the Company loaned the Company $60,000, unsecured, with a maturity date of May 31, 2016, an interest rate of 15% and a number of shares equal to 15% of the face value of the loan converted at $0.30 per share. The loan was settled, including accrued interest, for private placement units in the year ended June 30, 2016.

- An unrelated party loaned the Company $60,000 and a related party loaned the Company $23,000 for an aggregate of $83,000, unsecured, with a maturity date of May 31, 2016, an interest rate of 15% and a number of shares equal to 15% of the face value of the loan converted at $0.30 per share. Of the loan, $23,000 and accrued interest were settled with private placement units in the year ended June 30, 2016. The balance of the loan, being the unrelated party amount loaned, remains outstanding as at June 30, 2017.

- An unrelated party loaned the Company $100,000 and a related party loaned the Company $300,000 for an aggregate of $400,000, unsecured, with a maturity date of February 22, 2016 for $100,000 and May 31, 2016 for $300,000, and a flat fee, on repayment of the loan, of 30% of the principal of the loan, payable in cash or shares converted at $0.30 per share at the option of the Company. The Company settled principal and accrued interest of $248,191 with private placement units in the year ended June 30, 2016. The balance of the loan remains outstanding as at June 30, 2017.

Subsequent to June 30, 2017, the Company settled loans in the aggregate amount of $679,046 by issuing 2,611,714 Units at a deemed price of $0.26 per Unit.

Granting of Stock options

On January 22, 2015, the Company adopted an incentive stock option plan. Under the terms of this plan, the total number of share purchase options to be granted and outstanding may not exceed 10% of the total issued and outstanding common shares of the Company at the date of grant. Options may be granted with an exercise price equal to the market price of the common shares less any permitted discount on the grant date, vest according to privileges set at the time the options, have a minimum price of $0.10 and are granted and expire no later than five years from the date of grant.

Pursuant to the Company's Option Plan, the Company granted 615,247 stock options each exercisable into one Share of the Company at a price of $0.45 per share exercisable until August 24, 2021 and 684,939 stock options each exercisable into one Share of the Company at a price of $0.36 per share exercisable until March 20, 2022 to various employees, consultants, directors, and officers.

Summary of Quarterly Results

Several selected statistics for the quarters spanning the two most recently preceding fiscal years is summarized as follows, reported in Canadian dollars:

	F2016-Q1 Sep 30 2015	F2016-Q2 Dec 31 2015	F2016-Q3 Mar 31 2016	**F2016-Q4 June 30 2016**	F2017-Q1 Sep 30 2016	F2017-Q2 Dec 31 2016	F2017-Q3 Mar 31 2017	**F2017-Q4 June 30 2017**
Revenue	$ 21,250	$ 263,952	$ 227,706	**$ 295,353**	$ 286,029	$ 285,603	$ 239,397	**$ 379,370**
Expenses	$ 276,376	$ 830,205	$ 978,775	**$ 2,653,425**	$ 1,368,215	$ 1,696,275	$ 1,100,086	**$ 1,642,587**
Net Loss	$ (255,126)	$ (635,927)	$ (751,069)	**$(2,148,167)**	$(1,082,182)	$(1,410,672)	$ (830,689)	**$(1,293,221)**
Loss per Share[1]								
Basic	**$ 0.01**	**$ 0.05**	**$ 0.04**	**$ 0.07**	**$ 0.03**	**$ 0.03**	**$ 0.02**	**$ 0.03**
Diluted	**$ 0.01**	**$ 0.05**	**$ 0.04**	**$ 0.07**	**$ 0.03**	**$ 0.03**	**$ 0.02**	**$ 0.03**
Assets	$ 623,220	$ 4,488,674	$ 3,955,986	**$ 1,799,508**	$ 2,196,695	$ 2,288,204	$ 1,738,034	**$ 1,423,721**
Liabilities	$ 75,214	$ 1,878,863	$ 1,775,631	**$ 1,233,789**	$ 1,438,013	$ 1,176,756	$ 1,317,128	**$ 1,645,625**
Shareholders' Equity (deficiency)	$ 548,006	$ 2,609,811	$ 2,180,355	**$ 565,719**	$ 757,682	$ 1,111,448	$ 420,906	**$ (221,904)**

[1] The aggregate of quarterly per share amounts may not equal the annual per share amounts as per the audited financial statements due to rounding in the quarterly calculations.

The decrease in expenses in Q4 2017 as compared to Q4 2016 mainly was primarily due to a significant impairment recognized in the prior year relating to the goodwill on acquisition of FlowWorks.

Discussion of Year End Operations

Overall operating loss in the year ended June 30, 2017, was $4,616,764 of which $667,677 was consulting fees and $1,295,328 was salaries and wages. In addition there were other expenses of$1,340,988 comprising financing costs of $789,349; loss on version of convertible notes of $458,012 and loss on settlements of debt of $123,627. The previous year end had a loss of $3,790,289 of which $579,330 was consulting fees, $655,338 was salaries and wages, and other expenses of $2,005,568 was related to impairment on the acquisition of FlowWorks. The increase in operating expenditures is primarily related to growth and development of the Company's business and services. This included significant increases in both salaries and wages and consulting fees as the Company hired new employees in Canada and contracted developers in Gdansk, Poland to achieve development and engineering objectives.

Revenue

During the year ended June 30, 2017, the Company continued to promote and grow its services through FlowWorks and noted an overall increase is revenue as a result. In the year ended June 30, 2017, the Company reported $50,585 (2016 - $93,250) in revenue pertaining to the terms of a data services contract executed with a company on February 1, 2015. As the Company continues to shift its focus towards FlowWorks, it expects continued reduction in revenue from the data services contract.

The balance of revenues of $1,139,814 (2016 - $715,011) relates to the revenue generated by FlowWorks. FlowWorks generates revenue from service fees from its web-based application used for data analysis.

Operating Expenses

Overall, the Company's operating expenses have increased over the prior period as the Company has grown considerably from the prior period. The Company's primary focus during the year ended June 30, 2017 was on the development of its Big-Data-as-a-Service based solutions and has consequently incurred significantly larger fees related to personnel. The Company also saw an increase in financing fees as a result of debt obtained to support the Company's growth and development.

Consulting and professional fees

Consulting and professional fees for the year ended June 30, 2017 were $667,677 (2016 - $579,330) and $367,400 (2016 - $225,436), respectively. Consulting fees have increased as the Company has engaged a larger number of consultants to support its growing business model. The increase in professional fees were largely related to the Company's defense of a lawsuit from a dissenting shareholder of FlowWorks which was settled during the year ended June 30, 2017.

Occupancy costs and office and miscellaneous expenses

Occupancy costs and office and miscellaneous expenses for the year ended June 30, 2017 were $96,024 (2016 - $64,717) and $173,473 (2016 - $94,648), respectively. To promote growth and development, the Company has increased the scope of its workforce and operations and has therefore required additional office space and administrative costs. The Company also incurred additional office and administrative costs related to FlowWorks Inc. as the Company was fully consolidated for the entire year, as opposed to the comparable year, where it was acquired in mid-October 2016.

Filing and transfer agent fees and Investor Relations

The Company incurs filing and transfer agent fees pertaining to ongoing public company related regulatory and compliance expenses. The Company saw a significant growth in Investor Relations activities to $412,554 (2016 - $198,577) for the year ended June 30, 2017. The Company initiated investor relations campaigns to ensure that the Company maintains access to public markets for fund raising and so that current shareholders can benefit from an active market for their shares.

Marketing costs and Travel expenses

In the promotion of the FlowWorks business and the development of software, the Company has undertaken efforts to promote the Company on various web based and other electronic means. As a result of additional marketing efforts, marketing costs increased to $51,461 (2016 - $45,785) for the year. Travel has also been necessary in developing new contacts and attending various conferences and tradeshows to promote and market its FlowWorks platform and increased to $96,397 (2016 - $71,652) for the year ended June 30, 2017.

Salaries & wages

Salaries and wages expense of $1,295,328 (2016 - $655,338) relates predominantly to hired staff working on software development and data integration, and sales and administrative staff and has seen a considerable growth during the year ended June 30, 2017 as the Company focuses on its development and support team.

Financing

Financing expenses are related primarily to interest, royalties, and fees incurred on the convertible notes and were $759,349 (2016 - $109,456) for the year ended June 30, 2017. The Company also recognized a loss of $458,012 ($2016 - $nil) on the conversion of a portion of the note, as a result of transaction costs included in the note balance.

Specific items

Amortization expense of $267,539 (2016 - $185,024) relates to the amortization of FlowWorks' software estimated to have a three-year life and its customer list estimated to have a five-year life. Bad debt expense of $23,143 (2016 - $109,480) relates to specific identified accounts deemed to be unrecoverable in FlowWorks and Revenue Automation. The foreign exchange gain of $37,290 (2016: loss of $1,278) relates to the impact of the change in the Canadian / US dollar exchange rate on transactions in FlowWorks. Share-based payments of $242,774 (2016 - $133,574) increased as a result of option grants to new employees, directors, and consultants.

Operating Activities and Plans

Infrastructure Development

Following the successful acquisition of FlowWorks, three large infrastructure development projects were required to integrate Carl's existing ETS technology with the FlowWorks application:

1. Move the application onto Carl's cloud based platform and off the servers of KWL engineering ("Lift and Shift");
2. Separate the front end user interface of the application from the backend data management then re-attach a re-designed user interface using a library of web services ("UI Replacement"); and
3. Switch the backend data management system that FlowWorks uses to the ETS NoSQL cloud based storage and analytics platform ("Cloud Resolve").

Each of these important steps will are scheduled to be accomplished by the end of Calendar year 2017.

Lift and Shift

The benefits of moving FlowWorks onto Carl's cloud based system included; ease of administration, scalability, reduced reliance on external IT resources and ultimately the first stage of integration with Carl's new and powerful BDaaS platform. This phase of the project was completed in Spring 2017. This was a very complex task that involved ensuring each of FlowWorks existing customers made updates to their hardware and software setups. Though there were some unavoidable delays, the work was a success that resulted in a considerable performance gain for users and no significant loss of customers due to the inconvenience associated with the project.

UI Replacement

This project was completed in the summer of 2017. It allows for rapid development of new features and quick changes to User interfaces. The project also allows very large customers who do not require an application to support the data produced by Carl/FlowWorks to access all information through a series of web services. This is particularly important to the new B-B verticals that Carl is pursuing as it provides extensive flexibility in delivering our Analytics and data monitoring services.

Cloud Resolve

Although started in Fiscal 2016, this project is scheduled for completion in fall 2017. Cloud resolve completely integrates the ETS NoSQL storage and analytics platform with Flowworks. The benefits are enormous as this will allow Carl developers to build machine learning features right into the applications that are delivered to client – or – simply receive and transform massive amounts of data through web services with any customer. This Big Data as a Service capability is fundamental to Carl's growth as a company. The technology behind our "cloud resolve" project is cutting edge. There are very few companies who have the skill and capability to provide this service in any sector. As the last major non-revenue producing infrastructure project, completion will allow many of Carl's developers to move to revenue producing customization projects similar to what was released to the City of Los Angeles in Spring 2017.

New Products

FlowWorks Application

Parallel to the large infrastructure projects that Carl has undertaken, the company has also introduced advanced features to attract new customers. Topping this list is the new Inflow and Infiltration feature now available to all customers. This feature allows cities and their engineers to look at the overall performance of their infrastructure to check for limitations and degradation that come with age. As North America's cities become older, this is a very high priority for city engineers when allocating resources, upgrades and repairs. Other new features specific to the Flowworks Application are:

- Enhanced multisite reporting capabilities
- Unassisted client site setup
- Advanced data export capabilities
- The completion of a comprehensive knowledge base for users
- Many user experience updates that allow non-technical people to access the FlowWorks application

Flood Risk Assessment

In keeping with Carl's goal to market its services across new vertical, A Flood Risk Assessment and Risk assessment tool was built for Teck Resources and run in parallel with Teck's traditional risk assessment reporting system during the Spring 2017. This product was built using Carl's BDaaS infrastructure and served up to Teck as an "Application within and Application". The tool allows analysts to look as much as seven days into the future to see if environmental conditions will impact their tailings pond dams. The pilot was a success. Carl now has a customer in the mining sector and is expected to roll out the product in a second version format to five Teck Resource sites in British Columbia. The revenue and expertise gained from this collaboration with Teck is significant and leads the way into other profitable verticals.

EU Grant

One of the biggest problems that data analysts face is "noise" or "anomalies" within the datasets that they use to create their models. Using the ETS NoSQL data collection and storage platform, Carl has been developing an anomaly detection application for its customers. As reducing noise in datasets can eliminate as much as 90% of the work involved in producing accurate reports and models, an automated anomaly detection tool can dramatically increase overall operational efficiency by significantly reducing labour costs. The tool should also eliminate human error and provide near real time accurate data for reporting, alarming and analysis. Subsequent to the year ended June 30, 2017, the Company was accepted for an EU Development Grant which will provide funding for the project based on its overall importance to the field of data science and the high probability that it can be quickly monetized once complete. Carl's consulting team in Gdansk, Poland is working to deliver several versions of the product over the next twelve months. Carl expects it will receive approximately 75% of the cost of running the Gdansk office during the development and implementation of the project.

Anomaly detection is common to all areas of data analysis. This feature will accelerate Carl's growth into new verticals. In particular – Oil & Gas and Utilities.

Acquisition Strategy

Fundamental to Carl's growth has been to acquire new technology that is complimentary and can assist in developing new revenue streams. During the years ended June 30, 2016 and 2017, Carl has focused on technology that would allow the company better access to and more control over the data the feeds our applications. As a result, we have been working on acquiring in whole or in part the assets and Intellectual Property of AB Embedded Systems. This integration of a hardware company that can produce superior data collection devices at a much lower cost than any competitor will be a big competitive advantage for Carl. We expect to have our prototypes in the field by November 2017 with the first Pilot project to be implemented in early 2018.

Another target vertical that is added with this acquisition is solid waste management. By installing Carl's devices on collection bins, where real time data is collected and then fed into our applications, waste management companies can save time, money and provide their customers with a superior service to their competitors. In addition to the hundreds of companies throughout North America, Carl is working with the Harmon Group, A subsidiary of Samsung, to produce a solution in waste management for Bhopal, India. Carl's solution has passed the technical review of the request for proposal process and we are waiting for financial approval.

Other acquisitions are being evaluated based on their ability to provide additional revenue streams and new target verticals for the company.

ETS Software in Development

A total of $83,428 has been expended on third party software programmers in the development of the customer referral software that ETS has created. The remaining $204,172 is a fair market valuation adjustment upon the acquisition of ETS by CARL. The following table shows the composition of the value of the software in development:

	ETS Software in Development	Fair Value on adjustment of acquisition of ETS	Total
Balance – June 30, 2015	33,139	204,172	237,311
Expenditure on software development	50,289	-	50,289
Balance – June 30, 2016 and 2017	$ 83,428	$ 204,172	$ 287,600

FlowWorks Acquired Software Application

The software application relates to the web-based application acquired with FlowWorks. The application is in use and being amortized over a period of three years.

	Cost	Amortization	Cumulative Translation Adjustment	Total
Balance – June 30, 2015	$ -	$ -	$ -	$ -
Acquired software application	387,634	-	-	387,634
Amortization	-	(91,641)	-	(91,641)
Foreign currency translation	-	-	(1,934)	(1,934)
Balance – June 30, 2016	$ 387,634	$ (91,641)	$ (1,934)	$ 294,059
Amortization	-	(132,427)	-	(132,427)
Foreign currency translation	-	-	12,407	12,407
Balance – June 30, 2017	$ 387,634	$ (224,068)	$ 10,473	$ 174,039

Sources and Uses of Cash

Liquidity and Capital Resources

During the year ended June 30, 2017 the Company's operating activities required $1,870,581 (2016 - $1,478,664) in cash. The growth over the comparable year is a result of continued growth and development.

The Company's cash as at June 30, 2017 was $40,606 (2016 $136,010) and the Company's working capital deficit was $801,163 (2016 - $555,939).

Financing Activities

During the year ended June 30, 2017, the Company received $900,000 in cash from shares issued pursuant to private placements. $109,850 and $71,510 was generated from the exercise of stock options and warrants respectively. $377,900 was generated from short term loans and $71,100 was repaid. In addition, the Company received $390,000 from the issuance of convertible debentures.

In the comparative period, the Company received $177,200 in cash from shares issued pursuant to private placements and corresponding share issue costs of $2,016. $22,000 was generated from the exercise of stock options. $665,600 was generated from short term loans, net of repayment. In addition, the Company received a net of $388,300 from the issuance of convertible debentures, net of transaction costs.

Investing Activities

The Company did not expend cash on investing activities during the year ended June 30, 2017.

During the prior year, the Company spent $50,289 on software development and acquired cash balances of $124,055 upon the acquisition of FlowWorks by the issuance of common shares. During the year ended June 30, 2016, the Company made a $198,014 payment to a dissident shareholder of FlowWorks.

Capital Structure

As at the date of this MD&A, the Company has 46,127,416 common shares, 7,997,097 warrants, and 3,065,150 stock options outstanding. The Company also holds $485,000 in face value of a convertible note, which is convertible at $0.34 per share.

Financial Instruments and Risk Management

The Company's objective is to have sufficient working capital to maintain financial flexibility and to sustain the future development of ETS and FlowWorks. In order to maintain financial flexibility, the Company may from time to time issue shares and adjust its capital spending to manage current and projected cash requirements. To assess its financial strength, the Company continually monitors its cash balances and working capital. In the management of capital, the Company includes the components of shareholder's equity.

The Company is not subject to external restrictions as of the date of this MD&A.

There were no changes to the Company's approach to capital management during the year ended June 30, 2017.

The Company's financial instruments consist of cash, accounts receivable, accounts payable and accrued liabilities, short term loans and convertible notes. The fair values of these financial instruments approximate their carrying values due to the short-term nature and/or terms of the instruments or their cash value.

The Company may be exposed to a variety of financial risks by virtue of its activities including currency, credit, interest rate, and liquidity.

Market risk

Market risk is the risk that changes in market prices, such as foreign exchange rates, interest rates and equity prices will affect the fair value or future cash flows of a financial instrument. The objective of market risk management is to manage and control market risk exposures within acceptable parameters, while optimizing the return. At June 30, 2017 and 2016 the Company was not subject to significant market risk, except as noted below.

Foreign exchange risk

As at June 30, 2017 the Company had cash balances of $11,720 (Canadian dollar equivalent) (2016 - $28,851), accounts receivable of $210,174 (Canadian dollar equivalent) (2016 - $201,956), and accounts payable and accrued liabilities of $199,166 (Canadian dollar equivalent) (2016 - $48,970) denominated in US dollars. The Company's subsidiary, FlowWorks, operates in the United States which, from the perspective of the Company, creates currency risk associated with those operations. FlowWorks has revenue of $1,139,814 (2016 - $715,011) (Canadian dollar equivalent). A 10% change in the foreign exchange rate would result in a $68,000 (Canadian dollar equivalent) change on the statement of loss and comprehensive loss.

Credit risk

Credit risk arises from the non-performance by counterparties of contractual financial obligations. The Company's maximum exposure to credit risk at the reporting date is the carrying value of cash and accounts receivables. The Company holds cash at a major Canadian chartered bank in a chequing account, a Washington State, USA bank, and a regional brokerage firm.

Of the $210,174 in accounts receivable, $13,620 has been outstanding for greater than 90 days; however, was collected subsequent to year-end. The Company's credit risk for accounts receivable is concentrated, as 41% of its accounts receivable owing is from three customers (2016 – 50% from 2 customers), with more than 10% owing from each individual customer.

Interest rate risk

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. The Company's interest rate risk mainly arises from changes in the interest rates on cash. Cash generates interest based on market interest rates. At June 30, 2017 and 2016, the Company was subject to interest rate risk with respect to its loans payable, some of which bear interest at a fixed rate and others are non-interest bearing, and convertible note, which bear interest at a fixed rate.

Liquidity risk

Liquidity risk is the risk that an entity will encounter difficulty in meeting obligations associated with financial liabilities that are settled by delivering cash or another financial asset. The Company manages liquidity risk by maintaining adequate cash balances. If necessary, the Company may raise funds through the issuance of debt, equity or sale of non-core assets. The Company ensures that there is sufficient capital to meet its obligations by continuously monitoring and reviewing actual and forecasted cash flows, and matching the maturity profile of financial assets to development, capital and operating needs. The Company's accounts payable are due within 30 to 60 days. The maturities of loans payable and convertible note are disclosed in notes 9 and 10 of the consolidated financial statements, respectively. The Company has a working capital deficiency at June 30, 2017 and will need to raise further financing to meet its financial obligations.

Off-Balance Sheet Arrangements

The Company has no off-balance sheet arrangements.

Related Party Transactions

The Company has entered into an executive consulting agreement with a company controlled by the President, CEO and director of the Company. Under the terms of the agreement, the Company will pay the company a total of $10,833 per month.

The Company has entered into an executive consulting agreement with a company controlled by the former CFO of the Company. Under the terms of the agreement, the Company paid the company a total of $5,000 per month. Subsequent to the year ended June 30, 2017, this contract expired.

During the year ended June 30, 2017, the Company paid or accrued, to key management personnel and their related companies, total compensation of $296,953 (2016 - $242,740) comprised of $245,701 (2016 - $218,500) in consulting fees and $51,252 (2016 - $24,240) in share-based payments. Key management personnel includes current and former CEOs and CFOs of the Company.

During the year, guarantee fees of $217,142 (2016 - $nil) were earned by officers and directors of the Company for guaranteeing the convertible note liabilities of the Company.

Included in accounts payable and accrued liabilities is $164,901 (June 30, 2016 - $87,986) due to officers and directors of the Company. Additionally, the Company has entered into loan agreements with a related party as detailed in note 9 of the consolidated financial statements.

On June 9, 2014, ETS signed a referral services agreement with RA Revenue Automation Inc. ("RA") whereby RA agreed to use ETS as its exclusive referral marketing application and include the concept in all relevant business development pitches to customers. A company controlled by the Company's CEO owns 10% of RA. Revenue of $48,300 (2016 - $93,250) and $6,053 (2016 - $44,740) in bad debts recorded on the statement of comprehensive loss is from RA. As at June 30, 2017, $8,453 was owed from RA (2016 - $nil).

Kerr Wood Leidal Associates Ltd. ("KWL")

KWL, a consulting engineering company, founded and created FlowWorks and is a significant shareholder of the Company. During the year ended June 30, 2017, the Company earned sales revenue from KWL of $117,300 (2016 - $78,075) and incurred expenses from KWL of $75,908 (2016 - $84,221). Included in accounts receivable as at June 30, 2017 is a balance owing from KWL of $1,449 (2016 - $100,525). The Company owed accounts payable of $18,657 (2016 - $159,462) to KWL as at June 30, 2017.

During the year ended June 30, 2017, the Company paid $nil (2016 - $433,552) to KWL, on behalf of FlowWorks, to pay down balances owing.

Critical Accounting Estimates

The Company's financial statements are impacted by the accounting policies used and the estimates and assumptions made by management during their preparation. The Company's accounting policies are consistent with those used to prepare the audited consolidated financial statements for the year ended June 30, 2017. The accounting estimates considered to be significant to the Company include the review of the carrying values of software development assets, acquisition date fair values of identifiable assets and liabilities of FlowWorks and equity-settled transactions.

Management reviews the carrying values of its software development assets on a quarterly basis to determine whether any impairment should be recognized.

Future Changes in Accounting Policies

At the date of authorization of these audited consolidated financial statements, the IASB and IFRIC have issued the following new and revised standards, amendments and interpretations which are not yet effective during the year ended June 30, 2017:

IFRS 9 Financial Instruments (revised)

IFRS 9, Financial Instruments is part of the IASB's wider project to replace IAS 39 Financial Instruments: Recognition and Measurement. IFRS 9 retains but simplifies the mixed measurement model and establishes two primary measurement categories for financial assets: amortized cost and fair value. The basis of classification depends on the entity's business model and the contractual cash flow characteristics of the financial asset. The standard is effective for annual years beginning on or after January 1, 2018. The Company is currently evaluating the impact of adopting these amendments on its financial statements.

IFRS 15 Revenue from Contracts with Customers

IFRS 15 is a new standard to establish principles for reporting the nature, amount, timing, and uncertainty of revenue and cash flows arising from an entity's contracts with customers. It provides a single model in order to depict the transfer of promised goods or services to customers. IFRS 15 supersedes IAS 11, Construction Contracts, IAS 18, Revenue, IFRIC 13, Customer Loyalty Programs, IFRIC 15, Agreements for the Construction of Real Estate, IFRIC 18, Transfers of Assets from Customers, and SIC-31, Revenue – Barter Transactions involving Advertising Service. IFRS 15 is effective for annual years beginning on or after January 1, 2018. The Company is currently evaluating the impact of adopting these amendments on its financial statements.

IFRS 16 Leases

IFRS 16 is a new standard that sets out the principles for recognition, measurement, presentation and disclosure of leases, including guidance for both parties to a contract, the lessee and the lessor. The new standard eliminates the classification of leases as either operating or finance leases, as is required by IAS 17 Leases, and instead introduces a single lessee accounting model. IFRS 16 is effective for annual periods beginning on or after January 1, 2019. The Company is currently evaluating the impact of adopting the standard on its financial statements.

Risk Factors

The following are major risk factors management has identified which relate to the Company's business activities. Such risk factors could materially affect the Company's future financial results and could cause events to differ materially from those described in forward-looking statements relating to the Company. Though the following are major risk factors identified by management, they do not comprise a definitive list of all risk factors related to the Company's business and operations. Other specific risk factors are discussed elsewhere in this MD&A.

Stage of Development

The Company's ETS software is in the early prototype stage and the Company does not have an operating history. The process of developing new technology and new markets involves a high degree of risk and the technology could contain defects that lead to costs, damage to reputation or litigation. The amounts attributed to the Company's holdings in its software in development as reflected in its financial statements represent development expenses and fair value adjustments and should not be taken to represent realizable value. There is no assurance that the Company's software development activities will result in commercially profitable operations.

Capitalization and Commercial Viability

The Company will require additional funds to continue operations. The Company has limited financial resources, and there is no assurance that additional funding will be available to the Company to carry out the completion of all proposed activities. There can be no assurance that the Company will be able to obtain adequate financing in the future or that the terms of such financing will be favourable. Failure to obtain such additional financing could result in the curtailment of operations, liquidation of assets, seeking of additional capital on less favourable terms and/or other remedial measures.

History of Operating Losses

The Company has an accumulated deficit since its incorporation through June 30, 2017 of $8,981,089. The deficit may increase in the near term, as the Company continues its product development and establishes sales channels for its new products.

General Economic Conditions

The Company currently operates in Canada and the United States and, like all global businesses, it has been subject to the impact of the current global credit and financial crisis on consumers in its areas of operations and the discretionary spending available to them. General economic conditions have resulted in reduced consumer and government spending and have impacted the Company's profitability. Should these conditions continue to prevail, there will be further pressure on the Company's profitability.

Key Employees

The success of the Company, like all marketing and software companies, is largely dependent on the performance of its key employees and directors. The failure to retain key employees and directors and to attract and retain additional key employees with necessary skills could have a material adverse impact upon the Company's growth and profitability. Competition for highly skilled management, technical and other employees is intense. There can be no assurance that the Company will be successful in attracting and retaining such personnel and the departure of any of the members of the Company's executive team or key directors could have a material adverse effect on the Company's business, results of operations and financial condition.

New Market Risk

The Company is operating in a large market, but is providing a previously unavailable service. The Company faces uncertainty as to the degree of new and continuing market acceptance of its products. The performance of the Company also depends on the performance on agencies that the Company partners with along with their end customers.

Customer Risks

The Company is dependent on proper pricing of products, reporting of successful results of referral campaigns and timely collection of customer accounts. The Company is also dependent on its ability to ensure that customers operate within the terms of its service agreements.

Intellectual Property Risks

The Company has taken steps to protect its proprietary technology. The Company relies on a combination of trademark, trade secrets, laws and other intellectual property protection methods to protect its proprietary technology. These steps may not completely protect the Company's proprietary technology, nor give it a competitive edge. Others may independently develop substantially equivalent technology or gain access to our trade secrets. If the Company is unable to protect its intellectual property, the business over time could be materially affected. The Company will pursue all avenues available to it, if necessary, to enforce its patents, and to protect its trademarks and other intellectual property rights owned by the Company.

Reliance on Information Systems and Technology

The Company's business relies upon information technology systems to service customers at the point of sale. Its information technology systems may be vulnerable to unauthorized access, computer viruses, system failures, other malicious acts or acts of nature. Should a significant disruption to its information technology to occur, the Company's earnings could be adversely affected through loss of revenue and the costs to rectify the disruption. The Company is in an industry with many competitors that lay claim to intellectual property. The Company may receive notice from a third party asserting the Company has infringed on their intellectual property rights. As a result of such claims the Company's earnings could be adversely affected by costly litigation, product injunctions or consumption of management attention. The Company may also be required to expend significant capital and resources to protect against the threat of security, encryption and authentication technology breaches or to alleviate problems caused by such breaches.

Reliance on Third Party Licenses

The Company relies on certain software that it licenses from third parties, including a software program that is integrated with internally developed software and used in the Company's products to perform key functions. There can be no assurance that these third-party licenses will continue to be available to the Company on commercially reasonable terms. The loss of, or inability to maintain, any of these licenses, could result in delays or reductions in product and service deployment until equivalent software can be developed, identified, licensed and integrated, which could materially adversely affect the Company's business, results of operations and financial condition.

Risk Associated with International Operations

Management of the Company believes that its continued growth and profitability will require expansion of its sales further in the United States and into other foreign markets. This expansion will require significant management attention and financial resources and could adversely affect the Company's operating margins. In order to increase international sales in subsequent periods, the Company may establish additional foreign operations, incur substantial infrastructure costs, hire additional personnel and recruit international resellers. To the extent that the Company is unable to expand international sales in a timely and cost-effective manner, the Company's business, results of operations and financial condition could be materially adversely affected. In addition, even with the possible recruitment of additional personnel and international partners, there can be no assurance that the Company will be successful in maintaining or increasing international market demand for the Company's applications and services. The risk associated with currency fluctuations are comprised mainly of the Company's United States denominated sales, component purchases and other expenses. In the future, it is expected that a portion of revenues may be realized in other foreign currencies as a result of international sales. Fluctuations in the exchange rate between the Canadian dollar and other currencies, particularly the United States dollar, may have a material adverse effect on the Company's results of operations, financial condition and any business prospects. The Company may use hedges to mitigate the risk of foreign currency exposure.

Goodwill

Goodwill is the excess of the cost of an acquired enterprise over the net amount assigned to individual assets acquired and liabilities assumed in a business combination. Goodwill is not amortized and is tested for impairment annually by comparing the fair value of the operating cash flows to the carrying value of the reporting unit.

Expansion

The success of the Company's continued expansion will depend upon many factors, including the ability of the Company to maintain acceptable attrition rates and control of operating costs. There can be no assurance that the Company will be able to grow or achieve its continued expansion. Such risks, if they materialize, could have a material adverse effect on the Company's business, financial condition, liquidity and results of operations.

Available Workforce

The Company's continued success will depend on the performance and continued service of the Company's employees. The Company relies on the ability to attract new software engineers and developers, research and development staff, production personnel and key sales and marketing employees. The Company will continue to develop our employees and search for key new hires, however there is no assurance that the Company will be able to retain existing personnel or attract, hire and retain additional qualified personnel.