CARL DATA SOLUTIONS INC.

MANAGEMENT'S DISCUSSION & ANALYSIS
FOR THE YEARS ENDED JUNE 30, 2020 AND 2019

General

This Management's Discussion and Analysis ("**MD&A**") of CARL Data Solutions Inc. ("**CARL**," or the "**Company**") is dated October 28, 2020 and provides a review of the Company's financial results, from the viewpoint of management, for the year ended June 30, 2020 ("F2020") compared to the year ended June 30, 2019 ("F2019").

The following information should be read in conjunction with the Company's audited consolidated financial statements with accompanying notes as at and for the year ended June 30, 2020, which 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 statements, 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 statements 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 statements.

Description of Business

CARL Data Solutions Inc. ("**CARL**" or the "**Company**") was incorporated under the Business Corporations Act (British Columbia) on January 17, 2014. CARL is a developer of Big-Data-as-a-Service ("**BDaaS**")-based solutions, providing the 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. The Company's consolidated financial statements include the financial statements of the following subsidiaries:

Company	Place of Incorporation	Effective Interest
Extend to Social Media Inc. ("**ETS**")	British Columbia	100%
FlowWorks Inc. ("**FlowWorks**")	Washington, USA	100%
Carl Data Solutions PL ("**Carl PL**")	Poland	100%
i4C Innovation Inc. ("**i4C**")	British Columbia	100%
Astra Smart Systems Inc. ("**Astra**")	British Columbia	100%

CARL has spent the past year identifying, closing and integrating the Astra subsidiary into the core business which has been mainly the operations of FlowWorks. The strategy has been to build the internal development team to create the software platforms and build a world class technology team to create the infrastructure as a service layer including data center assets. This team has been sourced across three continents to attract the best talent available. CARL now has all the elements in place to successfully take on the Industrial Internet of things ("**IIoT"**) space as required for smart cities.

The combined capabilities of the teams allow the Company to respond to the demands and visions of individual utilities within a smart city environment delivering smart water and waste solutions that not only harness the world of IIoT sensors and on site data loggers that are connected to the cloud, but also artificial intelligence algorithms and global predictive data to overlay future demands and imponderables such as weather fluctuations and product of service utilization.

This unique platform has now been adopted by numerous cities across the US and Canada and is performing well, collecting enormous data sets from CARL's own IIoT sensors and a myriad of third-party end point devices. Embedded within the platform is an anomaly detector that sifts out the erroneous or irrelevant data points that can easily create false negatives and mislead decision making. The clean and relevant data is then analysed, overlaying predictive artificial intelligence then presenting the new, real time data in an easy to interpret dashboard for rapid and collaborative decision making.

The addressable markets of water and waste are significant but with its new technology agnostic data gathering, analytics and artificial intelligence engine, the Company is in a good position for strong growth in the smart city and building sector.

Going Concern

The Company's consolidated financial statements have been prepared on a going concern basis, which assumes that the Company will be able to meet its obligations and continue its operations for its next fiscal year. Realization values may be substantially different from carrying values as recorded in these audited consolidated financial statements. The Company's 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. At June 30, 2020, the Company had not achieved profitable operations, had accumulated a deficit of $20,416,370 since inception and expects to incur further operating losses in the development of its business. The Company's ability to continue as a going concern is dependent upon the ability to develop its business units, develop marketable software, potentially find, acquire and develop various other business segments with growth potential, 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. These events and conditions indicate a material uncertainty that may cast significant doubt about the Company's ability to continue as a going concern.

In March 2020, the World Health Organization declared coronavirus COVID-19 a global pandemic. This contagious disease outbreak, which has continued to spread, and any related adverse public health developments, has adversely affected workforces, economies, and financial markets globally, potentially leading to an economic downturn. Currently, it is not possible for the Company to predict the duration or magnitude of the adverse results of the outbreak and its effects on the Company's business or ability to raise funds.

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.

		June 30, 2020		**June 30, 2019**		**June 30, 2018**
Total Revenue	$	2,533,947	$	1,650,426	$	1,258,912
Total Expenses		5,214,485		4,979,759		6,033,581
Net Loss		(3,358,163)		(3,368,600)		(4,708,518)
Basic and Diluted Loss per Share		(0.04)		(0.04)		(0.08)
Total assets		2,857,168		3,122,044		4,385,604
Non-current financial liabilities		1,168,450		225,000		10,000

Recent Events & Overall Performance

Completed Private Placements and share issuances

During and subsequent to the year ended June 30, 2020, the Company had the following share transactions:

(i) On July 11, 2019, the Company repurchased and returned to treasury 36,888 common shares at a price of US$0.225 per share pursuant to a settlement agreement entered with the former dissenting shareholder.

(ii) On July 30, 2019, the Company issued 1,000,000 common shares to settle accounts payable and accrued liabilities of $100,000.

(iii) On August 14, 2019, the Company closed a private placement by issuing 4,000,000 common shares units (each, a "Unit") at a price of $0.20 per Unit for gross proceeds of $800,000. Each Unit consisted of one common share and one half of one common share purchase warrant with each whole warrant entitling its holder to purchase one additional common share for a period of two years at a price of $0.50 per common share. In connection with the offering, the Company paid a finder's fee of $64,000.

(iv) On October 17, 2019, the Company repurchased and returned to treasury 36,888 common shares at a price of $0.225 per share pursuant to a settlement agreement with the former dissenting shareholder.

(v) On October 29, 2019, the Company completed the acquisition of 100% of the outstanding shares of i4C, a technology integration and collaboration company that holds the lease for the data center and sensor manufacturing facility for IIOT devices that Astra occupies. In consideration, the Company issued 500,000 common shares to the sole shareholder of i4C and issued 210,000 common shares to an individual in settlement of a debt of $10,000 owing by Astra and $32,000 owing by i4C.

(vi) On December 27, 2019, the Company issued 660 common shares at a price of $0.40 per common share for a total of $264 on the exercise of warrants by an arm's length party.

(vii) In January 2020, a total of 413,637 options with exercise prices between $0.11 and $0.14 were exercised for gross proceeds of $47,000. On exercise, the Company reclassified a total of $26,567 from reserves to share capital.

(viii) On April 7, 2020, the Company issued an aggregate of 3,863,931 common shares as follows:

(a) 1,249,415 common shares to settle accounts payable and accrued liabilities in the amount of $249,886;

(b) 2,300,000 common shares to settle a convertible note with maturity of December 27, 2019 with a value of $345,000;

(c) 64,516 common shares that had been recognized to a commitment to issue shares as at June 30, 2019 related to a financing fee on a loan agreement dated September 26, 2018; and

(d) 250,000 common shares to close a private placement at a price of $0.20 per common share for gross proceeds of $50,000.

(ix) On May 27, 2020, the Company issued 300,000 common shares with a value of $0.15 per common share for a total value of $45,000 to settle accounts payable and accrued liabilities of $60,000.

(x) On August 5, 2020, settled a portion of convertible debt originally issued on July 28, 2019, with a value of $19,333, inclusive of $9,333 in accrued interest, by issuing 128,888 common shares.

(xi) On October 2, 2020, the Company repurchased and returned to treasury 75,564 common shares at a price of US$0.225 per share pursuant to a settlement agreement entered with the former dissenting shareholder.

Short-Term Loans

During the year ended June 30, 2020, the Company entered into the following loan agreements:

a) $30,000 received from an arm's-length party all with maturity of December 31, 2019 bearing interest at a rate of 15% per annum;

b) $250,000 received from an arms-length individual with no explicit terms of repayment. In connection with the loan, the Company must pay 8% simple interest per annum; and

c) As part of the Government of Canada's response to the COVID-19 global pandemic, certain businesses are eligible to apply for the Canada Emergency Business Account (the "CEBA"). The CEBA provides companies with a $40,000 interest free loan to be used to cover non-deferrable operating expenses during the period where operations had been temporarily reduced due to the economic impacts of the COVID-19 virus. During the period, the Company applied for the CEBA and received the $40,000 loan. The CEBA remains interest free until December 31, 2022 and has no fixed repayment schedule. If $30,000 is repaid on or before December 31, 2022, the remaining $10,000 will be forgiven. If at December 31, 2022, any amount remains unpaid, the Company will enter into an extension agreement whereby it will accrue interest at a rate of 5% per annum, with a repayment schedule to be determined at that time.

Convertible notes

During the year ended June 30, 2020, the Company issued the following convertible notes:

a) Five convertible debentures for an aggregate issuance of $300,000, bearing interest at a rate of 12% per annum and maturing between August 20, 2020 and September 25, 2020. The principal and interest, at the option of the holders, will be convertible into common shares of the Company at a conversion price of $0.30 per common share. The Company recognized an equity component of $41,538 on the convertible debentures.

b) Extended the maturity of a convertible note issued for $300,000 with an original maturity of December 24, 2019 to December 24, 2020. The extension was considered an extinguishment and reissuance of the convertible note. The Company recognized a new equity component on the reissued convertible note of $46,523;

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.

During the year ended June 30, 2020, the Company granted 500,000 stock options to a consultant with an exercise price of $0.20 and expiration date of November 1, 2021. The options vested 100% on grant.

Summary of Quarterly Results

Key financial information for the quarters spanning the two most recent fiscal years is summarized as follows, reported in Canadian dollars:

	June 30, 2020	March 31, 2020	December 31, 2019	September 30, 2019
Revenue	$ 962,974	$ 631,531	$ 475,095	$ 464,347
Operating expenses	1,345,178	1,149,108	1,276,573	1,443,626
Loss for the period	(867,047)	(545,589)	(966,248)	(979,279)
Basic and Diluted Loss per share	(0.01)	(0.01)	(0.01)	(0.01)
Assets	2,857,168	3,546,572	3,696,614	3,437,410
Liabilities	3,963,057	4,405,091	4,177,095	3,094,828
Shareholders' Equity (Deficiency)	(1,105,889)	(858,519)	(480,481)	342,582

	June 30, 2019	March 31, 2019	December 31, 2018	September 30, 2018
Revenue	$ 398,943	$ 334,801	$ 450,220	$ 466,462
Operating expenses	1,313,245	1,054,703	1,247,536	1,364,275
Loss for the period	(912,340)	(718,410)	(808,207)	(929,643)
Basic and Diluted Loss per share	(0.01)	(0.01)	(0.01)	(0.01)
Assets	3,122,044	3,383,664	3,755,001	3,786,595
Liabilities	2,635,291	1,985,785	1,708,767	1,285,729
Shareholders' Equity (Deficiency)	486,753	1,397,879	2,046,234	2,500,866

Fourth Quarter

Revenue in the fourth quarter of the year ended June 30, 2020 of $962,974 increased from the comparable quarter ended June 30, 2019 of $398,943. Higher revenues for the quarter ended June 30, 2020 was a result of the Company's recent revenue for its part in the Canada's Digital Technology Supercluster (the "Supercluster") related to the Fresh Water Data Commons Project. Expenses for the fourth quarter ended June 30, 2020 of $1,345,178 were in line with the comparable period's operating expenditures of $1,313,245.

Discussion of Operations

Revenue

For the year ended June 30, 2020, the Company generated $2,533,947 in revenues (2019 - $1,650,426) of which $1,407,636 (2019 - $1,125,520) related to revenue generated by FlowWorks, $625,313 related to revenue general by CARL (2019 - $nil), $132,850 (2019 - $96,600) related to revenue generated by ETS, $368,148 (2019 - $407,911) related to revenue generated by Astra, and $nil (2019 - $20,395) generated from the provision of digital currency verification services. Revenue from FlowWorks is comprised of service fees from its web-based application used for data analysis in addition to set-up fees and custom programming service contracts. The Company continued its focus on growing the FlowWorks customer base and saw growth of 25% for the year ended June 30, 2020. The parent company commenced its work with the Supercluster during the latter half of the year ended June 30, 2020 and expects continued growth of revenue as the project commences, which is expected to reach a conclusion in March 2021.

Operating Expenses and Other Items

Operating expenses and other items with significant variances and balances include:

Amortization

Amortization for the year ended June 30, 2020 was $769,712 (2019 – $752,169). The amortization expense for the year ended June 30, 2020 has decreased from the prior year, because some intangible assets had become fully amortized during the year ended June 30, 2019. During the fourth quarter of the year ended June 30, 2020, the Company made the decision to write-off its intangible asset for the preferential lease and accordingly recognized an impairment expense of $528,749. Accordingly, amortization expense is expected to be lower in future periods.

Computer Hosting Costs

Computer hosting costs for the year ended June 30, 2020 were $468,683 (2019 – $408,621). The additional hosting costs were incurred as a result of additional costs associated with Astra and i4C.

Consulting fees

Consulting fees for the year ended June 30, 2020 were $861,108 (2019 – $878,855). Consulting fees are primarily used for contracts with software developers and for management and movement between the two years is considered reasonable and resulted from certain cost cutting measures implemented by management.

Depreciation

Depreciation for the year ended June 30, 2020 was $359,857 (2019 – $225,889). The increase is a result of the Company's adoption of IFRS 16 which resulted in two right of use assets that started being depreciated during the year.

Energy Costs

Energy costs for the year ended June 30, 2020 were $279,493 (2019 - $232,803). The Company provided data hosting services to a different customer in the current year. The increase in energy costs is commensurate with the increase in data hosting revenue.

Interest

Interest for the year ended June 30, 2020 were $148,470 (2019 – $89,348). During the current year, the Company increased the interest rate on two convertible notes that matured in July 2019 and started recognizing interest on a convertible note that matured in December 2019, which resulted in an increase to interest recognized as compared to the prior year.

Investor Relations

Investor relations expense for the year ended June 30, 2020 were $352,608 (2019 – $236,848). During the current year, the Company entered into a large investor relations contract to promote its stock and maintain its market presence.

Office and miscellaneous

Office and miscellaneous costs for the year ended June 30, 2020 were $195,034 (2019 – $187,295). The costs are largely in line year over year, but increased marginally following the acquisition of i4C.

Professional fees

Professional fees for the year ended June 30, 2020 were $234,304 (2019 – $293,598). Professional fees decreased over the prior year as the Company had fewer legal requirements during the current year.

Share-based payments

Share-based payments for the year ended June 30, 2020 were $70,419 (2019 – $285,661). The expense relates primarily to stock options granted and vested during the year and are not expected to be comparable over the years as the expense is dependent on the timing of grants and vesting schedules.

Salaries and wages

Salaries and wages for the year ended June 30, 2020 were $1,053,025 (2019 – $870,546). The increase in salaries and wages is primarily a result of a new staffing requirements following the acquisition of i4C.

Travel

Travel expenses for the year ended June 30, 2020 were $79,308 (2019 – $94,753). The decrease primarily related to the fourth quarter of June 30, 2020 as the Company discontinued all travel due to the COVID-19 global pandemic.

Gain on settlement of debt

Gain on settlement of debt for the year ended June 30, 2020 was $85,043 (2019 – $14,250) and is a result of a difference in the fair value of share prices used to settle accounts payable and finance costs accrued.

Financing costs

Financing costs for the year ended June 30, 2020 was $150,455 (2019 - $45,000) and related in the current year to the recognition of costs that had previously been included in prepaid expenses upon the extinguishment of the convertible note facility held during the year.

Operating Activities and Plans

Company Structure

After the successful acquisition of Astra and i4C, the Company has been divided into 3 complimentary business units based in Trail (Canada), Burnaby (Canada), and Gdansk (Poland);

1) Hardware research and development are based in Trail, BC where the Company is actively pursuing grants to complete specialty components that will help secure data services contracts with existing and new customers.

    - The Trail facility has the perfect production and lab space to test and produce products that are desperately needed in building IIoT and smart city infrastructure.
    - The geographic location also provides the Company with access to funding through several regional economic diversity organizations that provide grants for the work CARL does.
    - Adding hardware and telemetry solutions to the Company's product offering provides true end to end solutions for the Company's clients.

2) Data science is based in Gdansk, Poland. Gdansk has a large pool of extremely well-educated engineers and statisticians who build and release the advanced features in the applications that the Company provides to its clients.
   - The group has successfully completed a key piece of infrastructure that will allow very advanced statistical modelling tools to be used not only in the applications that CARL produces, but these can also be consumed by customers through a web service. This allows the features to be used in other applications and allows the Company to charge for services on a transaction basis. Since this model does not include user interface development, it has a high profit margin.
   - Because artificial intelligence, machine learning and other statistical services are now separated from application development, The Gdansk group can operate without dependency on the Software as a Solution ("**SaaS"**) based application developers which decreases the time needed to get advanced features to market.

3) Application development is based in the Burnaby head office. In Burnaby the Company has a talented group of software engineers who continue to improve and expand on its core SaaS based application, FlowWorks.
   - The application has been significantly upgraded to allow inclusion of governments or companies with extremely high volumes of data to be accommodated.
   - Nearly unlimited cloud-based scalability means there are no ceilings for the size and number of clients that the Company can target.
   - The Company's developers have ensured that the platform can accommodate all types of time series data from virtually any device or data source. From images to stream flow to slope stability, FlowWorks can handle all of it.
   - The updates allow the Company to pursue a variety of clients from different industry verticals.

Moving Forward

CARL is actively targeting clients in many industrial market verticals. As IIoT explodes with new devices producing data, CARL is ready to be the go-to platform for data storage and analysis. The Company anticipates enormous growth in the "Smart Cities" market, with aging infrastructure, cities, mines, and utilities are scrambling to get a better idea of where upgrades and improvements are required. CARL's platform provides answers in real-time to decision makers who need to make decisions on capital projects. The Company's predictive analytics features can help identify events that may significantly impact valuable assets. By including hardware into the product mix, CARL is ready to deliver cost effective end-to-end solutions to a massive emerging market.

Liquidity and Capital Resources

During the year ended June 30, 2020 the Company's operating activities required $1,186,137 (2019 – $925,413) in cash. The increase in outflow follows a financing whereby the Company was able to pay down some of its accounts payable and accrued liabilities.

The Company's cash as at June 30, 2020 was $94,543 (2019 - $30,829) and the Company's working capital deficiency was $1,930,820 (June 30, 2019 – $1,614,781).

Financing Activities

During the year ended June 30, 2020, the Company generated $1,243,599 from financing activities (2019 - $716,687). A total of $897,264 less share issuance costs of $64,000 was generated through share issuances (2019 - $nil), $300,000 through proceeds on convertible notes issued (2019 – $430,000), $nil through proceeds from disposals of digital currencies (2019 – $20,037), and $320,000 through the issuance of short term loans (2019 – $970,000), less $nil (2019 – $616,064) incurred in repayment of loans, $69,167 (2019 - $nil) incurred in repayment of convertible notes, $21,807 (2019 - $87,286) on the repurchase of common shares, and $118,691 (2019 – $nil) on the payment of lease liabilities.

Investing Activities

During the year ended June 30, 2020, the Company's investing activities generated $6,410 (2019 - $nil) on the acquisition of i4C and required $nil (2019 - $8,537) related to the acquisition of property and equipment.

Capital Structure

As at the date of this MD&A, the Company has 87,002,286 common shares, 2,000,000 warrants, and 6,247,247 stock options outstanding.

Financial Instruments and Risk Management

Fair value of financial instruments

The Company measures the fair value of its financial instruments according to a fair value hierarchy based on the significance of observable inputs used to value the instrument as follows:

- Level 1 – Quoted prices (unadjusted) in active markets for identical assets or liabilities that the entity can access at the measurement date.
- Level 2 – Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly.
- Level 3 – Unobservable inputs for the asset or liability.

The Company's financial instruments consist of cash, accounts and other receivables, accounts payable and accrued liabilities, loans payable, and convertible notes and are classified as amortized cost. The carrying values of these financial instruments approximate their fair values because of their nature and/or relatively short maturity dates or durations.

Cash is classified as being at fair value through profit or loss. The fair value of cash is measured in accordance with Level 1 of the fair value hierarchy.

Financial and capital risk management

The Company examines the various financial instruments and risks to which it is exposed and assesses the impact and likelihood of those risks. These risks include market risk, foreign currency risk, interest rate risk, credit risk, and liquidity risk. These risks are reviewed and monitored by the Board of Directors.

The Board of Directors has overall responsibility for the determination of the Company's risk management objectives and policies. The overall objective of the Board is to set policies that seek to reduce risk as far as possible without unduly affecting the Company's competitiveness and flexibility. Discussions of risks associated with financial assets and liabilities are detailed below:

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, 2020 and June 30, 2019, the Company was not subject to significant market risk.

Foreign currency risk

As at June 30, 2020 the Canadian dollar equivalent carrying values of the financial assets and liabilities denominated in foreign balances are as follows:

	US Dollars		**Polish Zloty**	
June 30,	**2020**	**2019**	**2020**	**2019**
Financial Assets				
Cash	$ 5,653	$ 2,900	$ 18,704	$ 20,919
Accounts receivable	356,146	245,102	-	-
Financial Liabilities				
Accounts payable and accrued liabilities	$ 77,024	$ 107,141	$ 26,442	$ 27,994

The Company's subsidiary, FlowWorks, operates in the United States which, from the perspective of the Company, creates currency risk associated with those operations. For the year ended June 30, 2020, FlowWorks has revenue of $1,407,636 (2019 - $1,125,520) (Canadian dollar equivalent). A 10% change in the foreign exchange rate would result in a $141,000 (2019 - $112,000) (Canadian dollar equivalent) change in profit or loss.

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, 2020 and June 30, 2019, 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 notes, which bear interest at a fixed rate.

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 and other receivables. The Company holds cash at a major Canadian chartered bank in a chequing account, a Washington State, USA bank, and a Polish bank.

The Company is exposed to credit risk on its trade accounts receivable. The Company's credit risk for accounts receivable is concentrated as 50% of its trades account receivable is owing from four customers (June 30, 2019 – 41% from four customers), with more than 10% owing from one of those customers (June 30, 2019 – two).

The Company applies the simplified approach to providing for expected credit losses prescribed by IFRS 9, which permits the use of the lifetime expected loss provision for all trade receivables. To measure the expected credit losses, trade receivables are assessed primarily based on days past due. The Company has assessed expected credit losses based on 20% of its trade accounts receivables aged past 90 days and has estimated expected credit losses at June 30, 2020 of $23,028 (June 30, 2019 - $2,759).

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 Company has limited working capital at June 30, 2020 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 had previously 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 paid the company a total of $11,667 per month. Effective July 1, 2019, the Company replaced this agreement with a new agreement whereby, the Company will pay monthly consulting fees of $13,400.

During the year ended June 30, 2020, the Company paid or accrued, to key management personnel and their related companies:

	Consulting Fees	Share-based payments	Total
Chief Executive Officer	$ 160,000	$ 5,255	$ 165,255
Chief Financial Officer	72,000	-	72,000
Non-executive Directors	6,000	5,608	11,608
Total	$ 238,000	$ 10,863	$ 248,863

During the year ended June 30, 2019, the Company paid or accrued, to key management personnel and their related companies:

	Consulting Fees	Share-based payments	Total
Chief Executive Officer	$ 140,000	$ 67,106	$ 207,106
Chief Financial Officer	25,000	-	25,000
Former Chief Financial Officer	108,000	6,645	114,645
Non-executive Directors	50,000	73,922	123,922
Total	$ 323,000	$ 147,673	$ 470,673

Included in accounts payable and accrued liabilities is $257,749 (2019 - $241,805) due to officers, directors, and a former officer of the Company.

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 $96,600 (2019 - $96,600) recorded in profit or loss is from RA. As at June 30, 2020, $25,358 (2019 - $33,810) was owed from RA.
RA.

Kerr Wood Leidal Associates Ltd. ("KWL")

KWL, a consulting engineering company, founded and created FlowWorks and is related through a director of the Company. During the year ended June 30, 2020, the Company earned sales revenue from KWL of $150,600 (2019 – $142,775) and incurred expenses from KWL of $51,858 (2019 – $30,101). Included in accounts receivable as at June 30, 2020 is a balance owing from KWL of $28,496 (2019 - $30,030). Included in accounts payable and accrued liabilities as at June 30, 2020 is a balance owing to KWL of $26,557 (2019 - $nil).

Proposed Transactions

There are no proposed transactions for the year ended June 30, 2020.

Subsequent Events

Subsequent to June 30, 2020 the Company:

a. settled a portion of convertible debt originally issued on July 28, 2019, with a value of $19,333, inclusive of $9,333 in accrued interest, by issuing 128,888 common shares; and

b. repurchased and returned to treasury 75,564 common shares at a price of US$0.225 per share pursuant to a settlement agreement entered with a former dissenting shareholder.

Critical Accounting Estimates

The effect of a change in an accounting estimate is recognized prospectively by including it in profit or loss in the year of the change, if the change affects that year only, or in the year of the change and future years, if the change affects both.

Valuation of acquired assets

The Company has made estimates with respect to the acquisition date fair values of the identifiable assets and liabilities of acquired businesses. The valuation of intangible assets requires management to use valuation techniques to assess the fair values of assets and liabilities acquired at acquisition date, and each subsequent reporting period end date. The Company used its judgment to select methods and makes assumptions that reflected market conditions as at these dates.

Equity-settled transactions

The Company measures the cost of equity-settled transactions with employees by reference to the fair value of the equity instruments at the date at which they are granted. Equity-settled transactions with non-employees are recorded at the fair value of the service provided, where this is readily determinable. In other instances, they are recorded at the fair value of the equity instruments issued. Estimating fair value for share-based payment transactions requires determining the most appropriate valuation model, which is dependent on the terms and conditions of the grant. This estimate also requires determining the most appropriate inputs to the valuation model including the expected life of the share-based award, volatility and dividend yield and making assumptions about them.

New standards and interpretations adopted

IFRS 16 Leases

The Company adopted IFRS 16 - Leases ("IFRS 16") on July 1, 2019. The objective of the new standard is to eliminate the classification of leases as either operating or financing leases for a lessee and report all leases on the statement of financial position. The only exemption to this will be for leases that are one year or less in duration or for leases of assets with low values. Under IFRS 16 a lessee is required to recognize a right-of-use asset, representing its right to use the underlying asset, and a lease liability, representing its obligations to make lease payments. IFRS 16 also changes the nature of expenses relating to leases, as lease expenses previously recognized for operating leases are replaced with depreciation expense on capitalized right-of-use assets and finance or interest expense for the corresponding lease liabilities associated with the capitalized right-of-use leased assets.

The Company adopted IFRS 16 using the modified retrospective approach and did not restate comparative amounts for the year prior to first adoption. For all leases, the lease liability was measured at July 1, 2019 as the present value of any future minimum lease payments discounted using the appropriate incremental borrowing rate. The associated right of use assets was measured at the amount equal to the lease liability on July 1, 2019.

The following leases accounting policies have been applied as of July 1, 2019 on adoption of IFRS 16:

At inception of a contract, we assess whether a contract is, or contains, a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. We assess whether the contract involves the use of an identified asset, whether we have the right to obtain substantially all of the economic benefits from use of the asset during the term of the arrangement and if we have the right to direct the use of the asset.

As a lessee, we recognize a right-of-use asset, and a lease liability at the commencement date of a lease. The right-of-use asset is initially measured at cost, which is comprised of the initial amount of the lease liability adjusted for any payments made at or before the commencement date, plus any decommissioning and restoration costs, less any lease incentives received. The right-of-use asset is subsequently depreciated from the commencement date to the earlier of the end of the lease term, or the end of the useful life of the asset. In addition, the right-of-use asset may be reduced due to impairment losses, if any, and adjusted for certain measurements of the lease liability.

A lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted by the interest rate implicit in the lease, or if that rate cannot be readily determined, the incremental borrowing rate. Lease payments included in the measurement of the lease liability are comprised of:

- fixed payments, including in-substance fixed payments, less any lease incentives receivable;
- variable lease payments that depend on an index or a rate, initially measured using the index or rate as at the commencement date;
- amounts expected to be payable under a residual value guarantee;
- exercise prices of purchase options if we are reasonably certain to exercise that option; and
- payments of penalties for terminating the lease, if the lease term reflects the lessee exercising an option to terminate the lease.

The lease liability is measured at amortized cost using the effective interest method. It is remeasured when there is a change in future lease payments arising from a change in an index or rate, or if there is a change in our estimate or assessment of the expected amount payable under a residual value guarantee, purchase, extension or termination option. Variable lease payments not included in the initial measurement of the lease liability are charged directly to profit.

As part of the initial application of IFRS 16, we have elected not to recognize right-of-use assets and lease liabilities for short-term leases that have a lease term of 12 months or less and leases of low-value assets. The lease payments associated with these leases are charged directly to profit on a straight-line basis over the lease term.

Impact of transition to IFRS 16:

Effective July 1, 2019, the Company adopted IFRS 16 using the modified retrospective approach and accordingly the information presented for the year ended June 30, 2019 has not been restated. The cumulative effect of initial application is recognized in deficit at July 1, 2019. Comparative amounts for the year ended June 30, 2019 remains as previously reported under IAS 17 and related interpretations.

On initial application, the Company has elected to record right-of-use assets based on the corresponding lease liabilities. Lease liabilities have been measured by discounting future lease payments at the incremental borrowing rate at July 1, 2019. The incremental borrowing rate applied was 10% per annum and represents the Company's best estimate of the rate of interest that it would expect to pay to borrow, on a collateralized basis, over a similar term, an amount equal to the lease payments in the current economic environment.

As of the initial date of application of IFRS 16, the Company has two leases outstanding with a remaining noncancelable periods of 35 and 34 months. The application of IFRS 16 to leases, previously classified as operating leases under IAS 17, resulted in the recognition of right-of-use assets of $480,893 included within property, equipment, and right-of-use assets and lease liabilities with no net impact on deficit.

Future Changes in Accounting Policies

There are no IFRSs or IFRIC interpretations that are not yet effective that would be expected to have a material impact on the Company.

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.

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, 2020 of $20,376,118. 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, the United States, and Poland 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 of 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 their 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 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.

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.