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## **Management's Discussion and Analysis of Results of Operations and Financial Condition For the six months ended March 31, 2019**

This Management's Discussion and Analysis of Results of Operations and Financial Condition ("MD&A") of Bluedrop Performance Learning Inc. ("Bluedrop" or "the Company") provides the reader with a view and analysis, from the perspective of management, of Bluedrop's financial results for the six months ended March 31, 2019, and should be read in conjunction with the Company's Condensed Consolidated Interim Financial Statements and notes thereto for the six months ended March 31, 2019. All financial information has been prepared in accordance with International Financial Reporting Standards. All monetary amounts are stated in Canadian dollars. References to years are to the fiscal years ended September 30th unless otherwise noted. This MD&A has been prepared as of May 29, 2019.

The information contained in this MD&A represents only a portion of current information available on Bluedrop. Readers are encouraged to read this document together with prior annual and quarterly reports, news releases and corporate presentations which are available by visiting the Company's website at [www.bluedrop.com](http://www.bluedrop.com). Additional information regarding the Company, including all continuous disclosure documents, can be obtained on SEDAR at [www.sedar.com](http://www.sedar.com). If you require a hard copy of any of these documents please call the main office number (709) 739-9000.

### **Caution Regarding Forward-Looking Information**

*This MD&A may contain "forward-looking information", as defined in applicable Canadian securities legislation. Forward-looking information typically contains statements with words such as "plans", "expects", "anticipates", "budgets", "forecasts", "strategy", "goals", "objectives", "could", "would", "should", "may", "might", "intends", "believes", "potential", "target", "targeting" or similar words suggesting future outcomes or statements regarding an outlook. Forward-looking information is based on the current estimates, opinions and beliefs of Bluedrop (as defined herein), as well as various assumptions and information currently available to Bluedrop. Although Bluedrop believes the expectations expressed in such forward-looking information are based on reasonable assumptions, there can be no assurance that such forward-looking information will prove to be accurate, and actual results and future events could differ materially from those anticipated in such information. Forward-looking information in this MD&A includes, among other things, statements regarding Bluedrop's business objectives and growth strategies, expected developments, future payments of dividends, market conditions in the economy generally and Bluedrop's marketing strategy. Forward-looking information is based on a number of factors and assumptions which have been used to develop such information, but which may prove to be incorrect, including, but not limited to, assumptions in connection with the continuance of Bluedrop and its subsidiaries as a going concern and general economic and market conditions.*

*Factors that could cause actual results to differ materially from those in forward-looking information include general economic and business conditions, development and operating risks, uninsurable risks, competition, government regulation, losses and write-downs, restrictions contained in future loan facilities, dependence on key employees, personnel losses, failure of plant, equipment or process to operate as anticipated, power outages, accidents and labour disputes. For additional information with respect to risk factors applicable to Bluedrop, reference should be made to the section in this MD&A entitled "Risk Factors", as well as Bluedrop's continuous disclosure materials filed from time to time with Canadian securities regulatory authorities, including, but not limited to, Bluedrop's annual and interim management's discussion and analysis.*

*Any financial outlook or future-oriented financial information in this MD&A, as defined by applicable securities legislation, has been approved by management of Bluedrop as of the date of this MD&A. Such financial outlook or future-oriented financial information is provided for the purpose of providing information about management's current expectations and plans relating to the future. Readers are cautioned that such outlook or information should not be used for purposes other than for which it is disclosed in this MD&A.*

*The forward-looking information contained in this MD&A is made as of the date of this MD&A and Bluedrop does not undertake to update publicly or revise the forward-looking information contained in this MD&A, whether as a result of new information, future events or otherwise, except as required by applicable securities laws.*

## COMPANY OVERVIEW

Bluedrop is an innovator in both the development of workplace e-learning and simulation as well as the way large organizations deliver, track and manage training. The Company serves the world's leading aerospace and defence organizations as well as broad cross sections of organizations focused on managing system wide health and safety, and developing the skills of external workforces. Bluedrop is helping to create the workforce of the future by improving the effectiveness, speed and costs of training and delivery management.

Bluedrop's business is organized and managed as two complementary lines of e-Learning based training businesses.

Bluedrop Training and Simulation is one of Canada's leading providers of comprehensive training solutions for the defence sector. With over 40 years' experience and hundreds of training devices delivered it prides itself on its resume and skilled work force. Bluedrop Training and Simulation provides a full suite of products and services ranging from training needs analysis and design, courseware and technical documentation, training information management systems, training program delivery, virtual reality based trainers and simulators and in-service support for larger simulators and programs. It services all branches of the defence sector including naval, air force and army operations as well as other security agencies.

Bluedrop Learning Networks is pioneering the development and adoption of a SaaS based training and delivery platform, *Bluedrop360™*, providing large scale customers with the ability to engage, track training and monitor training of large user groups spread out over multiple locations. The goal of these customers is often to digitize manual processes for large populations, even entire Provinces or States. Our platform provides the complete service offering and solutions to meet the operational requirements of its clients from designing the training requirement, to building custom content, to operating and supporting the training and delivery platform. Revenues are generated from recurring platform licences, custom courseware development, consulting services, and the sale of commercial off-the-shelf courses.

## DISCUSSION OF OPERATIONS

### Bluedrop Training and Simulation

During the six months ended March 31, 2019, the business unit earned revenue of \$6.5 million, a decrease of 33% compared to the prior year of \$9.7 million. The Bluedrop Training and Simulation business unit ended the quarter with an estimated revenue backlog<sup>1</sup> of \$14.7 million.

Subsequent to the quarter end, the Company announced a contract for over \$4.0 million that extends eLearning services by another three years at the Tactics School Army Learning Support Centre in Gagetown. In addition, the business unit received a nine-month extension to provide support services to the Maritime Helicopter Training Centre in Shearwater. The business unit continues to pursue several multi-year renewals, extension bids and new contracts.

The business unit continued to focus on developing strategic product-based offerings with a goal of working with large scale aerospace equipment manufacturers to develop low cost simulation offerings. On January 23, 2019, the Company signed a \$1.0 million contract to build a vehicle crew gunnery simulator solution for Public Services and Procurement Canada under the Build in Canada Innovation Program. Subsequent to the quarter end, the Company announced that it received contracts of over \$2.0 million to deliver its innovative Hoist Mission Training System to Logistic Services International (LSI) for the US Air Force and an agreement to deliver another Hoist Mission Training System (HMTS) to the Royal Canadian Air Force.

On May 29, 2019, the Company announced plans to develop a V-22 Osprey Special Mission Aviator Ramp Trainer. The program is funded under the Innovation, Science and Economic Development Canada (ISED), Investment Framework Transaction program by Boeing. The program includes funding to Bluedrop, engineering support from Boeing and a three-year commitment to support the development and ongoing sales of the new product within the Boeing global supply chain.

### Bluedrop Learning Networks

During the six months ended March 31, 2019, the Bluedrop Learning Networks business unit continued pursuits in the Occupational Health & Safety and Workforce Development verticals. The business unit also continued research and development investments in the *Bluedrop360™* platform. The business unit generated revenue of \$2.4 million, up compared to the prior period of \$1.6 million which was due to revenue from a large courseware and license contract being recognized in the current period.

<sup>1</sup> See section titled "Non-GAAP Financial Measures"

The business unit continues to pursue multiple market opportunities and ended the quarter with an estimated revenue backlog<sup>1</sup> of \$10.5 million. On May 6, 2019 the Company announced a \$2.8 million contract to develop a managed digital service delivery channel solution for the Department of Labour and Advanced Education in Nova Scotia.

## Corporate

During the six months ended March 31, 2019, management continued to monitor financial requirements and maintained appropriate working capital and cash availability positions ending the period with cash of \$0.9 million.

On May 16, 2018, it was announced that Bluedrop Performance Learning will receive a repayable investment of up to \$7.6 million through the federal government Strategic Innovation Fund. The funding will be used to support research and development and will help create and maintain employment by supporting the design and development of next generation aerospace and marine simulation and training products. As at March 31, 2019, \$933,401 of the funds were drawn against the facility.

The Company continued to acquire shares under a normal course issuer bid. During the six months ended March 31, 2019, 219,500 shares were purchased for \$28,640. The purchases resulted in a decrease to share capital and deficit of \$10,975 and \$17,665, respectively. The bid expired on March 30, 2019.

## ADOPTION OF NEW ACCOUNTING STANDARDS

### (a) IFRS 9 Financial Instruments

IFRS 9 sets out requirements for recognizing and measuring financial assets, financial liabilities and some contracts to buy or sell non-financial items. This standard replaces IAS 39 Financial Instruments: Recognition and Measurement.

IFRS 9 has been adopted by the Company retrospectively. The adoption of this standard had no impact on amounts recognized in the consolidated financial statements of the Company."

#### Classification and measurement of financial assets and financial liabilities

IFRS 9 contains three principal classification categories for financial assets: measured at amortized cost, fair value through other comprehensive income (FVOCI) and fair value through profit & loss (FVTPL). The classification of financial assets under IFRS 9 is generally based on the business model in which a financial asset is managed and its contractual cash flow characteristics. IFRS 9 eliminates the previous IAS 39 categories of held to maturity, loans and receivables and available for sale. Under IFRS 9, derivatives embedded in contracts where the host is a financial asset in the scope of the standard are never separated. Instead, the hybrid financial instrument as a whole is assessed for classification.

IFRS 9 largely retains the existing requirements in IAS 39 for the classification and measurement of financial liabilities. The adoption of IFRS 9 has not had a significant effect on the Company's accounting policies related to financial liabilities and derivative financial instruments."

The following table illustrates the original measurement categories under IAS 39 and the new measurement categories under IFRS 9 for each class of the company's financial assets and financial liabilities.

<b>Asset / Liability</b>	<b>Original classification under IAS 39</b>	<b>New classification under IFRS 9</b>
Cash	Loans and receivables	Amortized cost
Restricted cash	Loans and receivables	Amortized cost
Accounts receivable	Loans and receivables	Amortized cost
Derivative asset	Fair value through profit and loss	Fair value through profit and loss
Accounts payable and accruals	Other financial liabilities	Other financial liabilities
Long-term debt	Other financial liabilities	Other financial liabilities
Other financial liabilities	Other financial liabilities	Other financial liabilities

The adoption of IFRS 9 classification amendments had no significant impact on the measurement of financial liabilities in the consolidated financial statements of the Company.

### Impairment of financial assets

IFRS 9 replaces the 'incurred loss' model in IAS 39 with an 'expected credit loss' (ECL) model. The new impairment model applies to financial assets measured at amortized cost, contract assets and debt investments at FVOCI, but not to investments in equity instruments. Under IFRS 9, credit losses are recognized earlier than under IAS 39. For assets in the scope of the IFRS 9 impairment model, impairment losses are generally expected to increase and become more volatile.

For trade receivables, the Company has applied the simplified approach under IFRS 9 and has calculated ECLs based on lifetime expected credit losses taking into considerations historical credit loss experience and financial factors specific to the debtors and general economic conditions.

The Company has determined that the application of IFRS 9's impairment requirements had no impact on the consolidated financial statements.

### Hedge accounting

The new general hedge accounting model in IFRS 9 requires the Company to ensure that hedge accounting relationships are aligned with its risk management objectives and strategy and to apply a more qualitative and forward-looking approach to assessing hedge effectiveness.

The Company has no designated hedging relationships. As such, the adoption of the IFRS 9 hedge accounting requirements had no impact on the consolidated financial statements.

### (b) IFRS 15 Revenue from Contracts with Customers

In May 2014, the IASB released IFRS 15 Revenue from Contracts with Customers. The standard contains a single model that applies to contracts with customers and two approaches to recognizing revenue: at a point in time or over time. The model features a contract-based five-step analysis of transactions to determine whether, how much and when revenue is recognized.

The Company has adopted IFRS 15 using the full retrospective method as of October 1, 2017 and has determined that there is no change to amounts recognized in the comparative periods as a result of the adoption of the standard. The company had elected to use the following practical expedients:

- For completed contracts, the Company will not restate contracts that begin and end within the same annual reporting period or are complete at the beginning of the earliest year presented (i.e. October 1, 2017);
- For completed contracts that have variable consideration, the Company will use the transaction price at the date the contract was completed rather than estimating variable consideration amounts in the comparative reporting periods;
- For contracts that were modified before the beginning of the earliest period presented the Company will reflect the aggregate effect of all modifications that occur before the beginning of the earliest period presented when identifying satisfied and unsatisfied performance obligations, determining the transaction price and allocating the transaction price to performance obligations; and
- For all reporting periods presented before the date of initial application, we will not disclose the amount of the transaction price allocated to the remaining performance obligations and an explanation of when the Company expects to recognize that amount as revenue.

In accordance with IFRS 15, contracts with customers are presented in statement of financial position as a 'contract asset', or 'contract liability'. 'Contract assets' are recognized when goods or services have been transferred to the customer prior to billings. 'Contract liabilities' are recognized when customer payments are provided (or due) prior to transfer of goods or services to the customer. Previously, the Company presented these balances as 'unbilled revenue' and 'deferred revenue' respectively. Accordingly, the Company has updated the financial statement captions to reflect the terminology included in the new standard.

In addition, the Company has disaggregated revenue from contracts with customers by major product/service category for each of our segments as we believe this best depicts how the nature, amount, timing and uncertainty of revenue are affected by cash flows are affected by economic conditions.

In accordance with the new standard, the Company determines the amount and timing of revenue recognition in accordance with the five-step model as follows:

- i. Identify the contract with a customer
- ii. Identify the performance obligations in the contract
- iii. Determine the transaction price
- iv. Allocate the transaction price to the performance obligations in the contract
- v. Recognize revenue when (or as) the entity satisfies a performance obligation.

The Company has updated its accounting policies to reflect guidance provided by IFRS 15 as follows:

#### Contracts with multiple performance obligations

The Company often enters into contracts with customers involving the supply of multiple products and services. The consideration received from multiple-component transactions is allocated to each separately identifiable performance obligation on the basis of its stand-alone selling price, or based on the residual method, as applicable. The Company applies the revenue recognition policies set out below to each performance obligation in the contract.

#### Courseware development services

The Company generates revenue from services provided under custom courseware development contracts and consulting arrangements. Custom courseware development contract revenues are recognized over time using the input cost method, measured by the percentage of costs incurred to date to the estimated total costs for each contract. Consulting arrangements are typically completed under time and materials type contracts, whereby performance obligations are primarily labour based and revenues are recognized at a point in time as the services are delivered to the customer.

#### In-service support

In Service Support revenues are generated from providing long term support services to in-service training programs. For time and materials type contracts, performance obligations are primarily labour based and revenues are recognized over time as the services are delivered to the customer. For fixed price arrangements, revenues are recognized over time using the cost input method, measured by the percentage of costs incurred to date to the estimated total costs for each contract.

#### Software licensing and subscriptions

Subscription revenues are generated from contracts whereby the Company provides a licence to customers to access the Company's learning management solutions, namely CoursePark™ and Bluedrop360™, cloud-based learning management solutions and Learninglogics™, a traditional learning management system. Revenues for cloud-based learning management systems are recognized over time using the time elapsed output method.

For perpetual licensing arrangements, revenue is recognized at a point in time when the product is delivered to the customer and ownership is transferred to the customer.

The Company's performance obligations with respect to license support contracts are to provide customers with technical support as needed and unspecified software product upgrades, maintenance releases and patches during the term of the support period when they are available.

The Company is obligated to make the license and hardware support services available continuously throughout the contract period. Therefore, revenues for license support contracts are generally recognized over the contractual periods that the support services are provided.

#### Simulation products

Simulation product revenues are generated from the design and supply of simulation training devices. Revenues are recognized over time using the cost input method, if the Company determines that these devices have no alternative use and the Company has an enforceable right to payment for work completed to date. When the company determines that there is an alternative use for the device, revenue is recognized when the customer obtains control on completion.

## FINANCIAL RESULTS OF OPERATIONS

The following tables and discussion compare Bluedrop's operating results for the three and six months ended March 31, 2019, to the same periods in the prior fiscal year.

(Canadian dollars in thousands)	Three Months Ended March 31		Change (2019 vs. 2018)	
	2019	2018	\$	%
<b>Revenue</b>				
Courseware development services	1,547	2,132	(585)	-27%
In-service support	2,548	1,962	586	30%
Software licensing and subscriptions	779	484	295	61%
Simulation products	149	1,547	(1,398)	-90%
	5,023	6,125	(1,102)	-18%
<b>Direct costs</b>	2,668	3,875	(1,207)	-31%
<b>Gross profit</b>	2,355	2,250	105	5%
Gross profit percentage	47%	37%		
<b>Expenses</b>				
Sales and marketing	510	406	104	26%
General and administration	1,832	1,170	662	57%
Research and development costs	1,610	723	887	123%
Government assistance and other funding	(435)	(365)	(70)	19%
Share-based compensation	1	3	(2)	-67%
Finance costs	218	314	(96)	-31%
Depreciation and amortization	171	234	(63)	-27%
Other (gains) and losses	(1)	(73)	72	-99%
	3,906	2,412	1,494	62%
<b>Earnings before income taxes</b>	(1,551)	(162)	(1,389)	857%
Income tax expense (recovery)	(458)	(42)	(416)	990%
<b>Net earnings</b>	(1,093)	(120)	(973)	811%

(Canadian dollars in thousands)	Six Months Ended March 31		Change (2019 vs. 2018)	
	2019	2018	\$	%
<b>Revenue</b>				
Courseware development services	2,714	3,761	(1,047)	-28%
In-service support	4,611	3,997	614	15%
Software licensing and subscriptions	1,439	951	488	51%
Simulation products	148	2,538	(2,390)	-94%
	8,912	11,247	(2,335)	-21%
<b>Direct costs</b>	4,991	7,123	(2,132)	-30%
<b>Gross profit</b>	3,921	4,124	(203)	-5%
Gross profit percentage	44%	37%		
<b>Expenses</b>				
Sales and marketing	1,073	788	285	36%
General and administration	3,088	2,316	772	33%
Research and development costs	2,779	1,230	1,549	126%
Government assistance	(688)	(690)	2	0%
Share-based compensation	2	7	(5)	-71%
Finance costs	511	709	(198)	-28%
Depreciation and amortization	342	451	(109)	-24%
Other (gains) and losses	(57)	(76)	19	-25%
	7,050	4,735	2,315	49%
<b>Earnings before income taxes</b>	(3,129)	(611)	(2,518)	412%
Income tax expense (recovery)	(899)	(167)	(732)	438%
<b>Net earnings</b>	(2,230)	(444)	(1,786)	402%

## Revenue

For the three months ended March 31, 2019, revenues were \$5,023,279, a decrease of \$1,101,295 (18%) as compared to the same period in the prior year. For the six months ended March 31, 2019 revenues were \$8,911,988, a decrease of \$2,334,789 (21%) as compared to the same period in the prior year.

The following tables illustrate the change in revenues from each identified operating segment for the three and six months ended March 31, 2019.

Revenue	Three Months Ended March 31				Change (2019 vs. 2018)	
	2019	% of total	2018	% of total	\$	%
<i>Bluedrop Training and Simulation</i>	3,640	72%	5,150	84%	(1,510)	-29%
<i>Bluedrop Learning Networks</i>	1,383	28%	975	16%	408	42%
	<u>5,023</u>	100%	<u>6,125</u>	100%	<u>(1,102)</u>	-18%

Revenue	Six Months Ended March 31				Change (2019 vs. 2018)	
	2019	% of total	2018	% of total	\$	%
<i>Bluedrop Training and Simulation</i>	6,492	73%	9,665	86%	(3,173)	-33%
<i>Bluedrop Learning Networks</i>	2,420	27%	1,582	14%	838	53%
	<u>8,912</u>	100%	<u>11,247</u>	100%	<u>(2,335)</u>	-21%

During the six months ended March 31, 2019, the Training and Simulation business saw a decreased level of revenues compared to the prior period which was directly related to delivery against a large simulation product contract in the prior period. In addition, the business unit generated lower courseware development revenues due to contracting delays on several projects.

The Bluedrop Learning Networks operations had higher revenue in six months ended March 31, 2019, compared to the prior year period as a result of courseware development and platform licensing revenue associated with two major provincial government programs being recognized in the current period.

The following tables illustrate the change in revenues from each major service or product category for the six months ended March 31, 2019.

Revenue	Six Months Ended March 31				Change (2019 vs. 2018)	
	2019	% of total	2018	% of total	\$	%
<i>Courseware development services</i>	2,714	30%	3,761	33%	(1,047)	-28%
<i>In-service support</i>	4,611	52%	3,997	36%	614	15%
<i>Software licensing and subscriptions</i>	1,439	16%	951	8%	488	51%
<i>Simulation products</i>	148	2%	2,538	23%	(2,390)	-94%
	<u>8,912</u>	100%	<u>11,247</u>	100%	<u>(2,335)</u>	-21%

During the six months ended March 31, 2019, courseware development services declined significantly as a result of delays in procurement of several major program pursuits. The Company increased software licensing revenues primarily as a result of platform licensing revenue associated with two major provincial government programs being recognized in the current period. During the prior period the Company completed work against an ongoing large simulation product delivery.

### Direct costs

Direct costs include all labour costs plus materials, supplies, third party services and travel costs directly associated with projects, as well as any royalties that may be payable as a result of revenues generated from licensed products.

For the three months ended March 31, 2019, total direct costs were \$2,668,568 a decrease of \$1,205,985 (31%) over the same quarter in the prior year. For the six months ended March 31, 2019 total direct costs were \$4,991,391 a decrease of \$2,131,751 (30%) over the period in the prior fiscal year. The decrease in fiscal 2019 is primarily due to higher costs associated with delivery against a lower margin simulation product in the prior year.

### Gross profit

For the three months ended March 31, 2019, gross profit was \$2,354,711 an increase of \$104,690 (5%) over the same period in the prior year. The reported gross profit percentage for the three months ended March 31, 2019, was 47% as compared to 37% for the same period in the prior year.

For the six months ended March 31, 2019, gross profit was \$3,920,597 a decrease of \$203,038 (5%) over the same period in the prior year. The reported gross profit percentage for the six months ended March 31, 2019, was 44% as compared to 37% for the same period in the prior year.

The Bluedrop Training and Simulation business unit gross profit for the six months ended March 31, 2019, was \$2,368,593 versus \$3,283,504 for the same period in the prior year – primarily due to the noted revenue decreases above. The gross profit percentage was 36% for the current period versus 35% for the prior period.

The Bluedrop Learning Networks business unit gross profit for the six months ended March 31, 2019 was \$1,552,004 as compared to \$840,131 for the same period in the prior year. The gross profit percentage was 64% for the current period versus 53% for the prior period. The increase in gross profit was due to an increase in software licensing revenues in the period.

### Sales and marketing

For the three months ended March 31, 2019, sales and marketing expenses were \$509,698 an increase of \$103,846 (26%) over the same period in the prior year. For the six months ended March 31, 2019, sales and marketing expenses were \$1,073,249, an increase of \$285,691 (36%) over the same period in the prior year. The overall increase in costs for both periods was primarily related to increased labour resources, travel and marketing costs associated with increased sales efforts during the period.

### General and administration

For the three months ended March 31, 2019, general and administration expenses were \$1,831,532 an increase of \$661,579 (57%) over the same period in the prior year. For the six months ended March 31, 2019, general and administration expenses were \$3,088,130, an increase of \$772,216 (33%) over the same period in the prior year. General and administration expenditures were higher than the prior period primarily due to higher labour costs and professional fees.

### Research and development costs

For the three months ended March 31, 2019, research and development costs were \$1,610,399 an increase of \$887,483 (123%) over the same period in the prior year. For the six months ended March 31, 2019, research and development costs were \$2,779,289 an increase of \$1,548,895 (126%) over the same period in the prior year. The increase in research in development costs is due to increased expenditures associated with development of additional functionality with the *Bluedrop360™* platform as well as increased expenditures related to future simulation products.

The Training and Simulation business unit invested \$1,057,460 (2018 - \$590,681) during the six months ended March 31, 2019 for costs associated with the research development of future simulation products. In addition, the Learning Networks business unit invested \$1,721,829 (2018 - \$639,713) during the fiscal year for costs mostly associated with enhancements to the in service *Bluedrop360™* platform.

### **Government assistance**

For the three months ended March 31, 2019, government assistance included in income was \$435,036 an increase of \$70,444 (19%) over the same period in the prior year. For the six months ended March 31, 2019, government assistance included in income was \$687,955 a decrease of \$2,057 (0%) over the same period in the prior year.

During the period, the Company recognized \$352,237 of government assistance associated with discounts on below-market interest rate debt associated with funds drawn under the Strategic Innovation Funds.

### **Share-based compensation**

Pursuant to its 2011 Stock Option Plan, the Company has reserved a maximum of 16,827,718 of the issued and outstanding common shares of the Company for issuance on the exercise of share options. The fair value of each option grant is estimated on the date of the grant using the Black-Scholes option pricing model.

The Company recorded \$1,604 as share-based compensation expense for the six months ended March 31, 2019, and \$7,177 for the same period in the prior year. The decrease in share-based compensation expense was a result of certain options reaching the end of their vesting period. During the period, 9,943,517 of share options were exercised. As at March 31, 2019 there are no share options outstanding.

The Company has an employee share purchase plan which permits employees to subscribe to common shares of the Company through payroll deductions. The Company may provide financial assistance with respect to the plan by way of loan, guarantee or otherwise. The Company has reserved a maximum of 2,969,597 common shares under the employee share purchase plan. As at March 31, 2019, no shares were outstanding under the plan.

### **Finance costs**

For the three months ended March 31, 2019, finance costs were \$217,641, a decrease of \$96,630 (31%) over the same quarter in the prior period. For the six months ended March 31, 2019, finance costs were \$510,832 a decrease of \$198,355 (28%) over the same period in the prior year.

During the six months ended March 31, 2019, interest on long term debt decreased by \$82,361 compared to the prior period. The Company continued to repay the RBC term loan throughout fiscal 2019 resulting in a lower interest expense in the current quarter. During the period, the Company received an additional \$470,432 against the previously announced Strategic Innovation Fund facility.

During the quarter, the Company recorded a gain of \$105,499 associated with revaluation of the unsecured royalty obligation.

### **Depreciation and amortization**

For the three months ended March 31, 2019, depreciation and amortization expense was \$171,093, a decrease of \$63,188 (27%) over the same quarter in the prior year. For the six months ended March 31, 2019, depreciation and amortization expense was \$341,664, a decrease of \$109,616(24%) over the same period in the prior year.

The decrease was primarily a result of certain intangible technology assets nearing the end of their useful life for depreciation purposes.

### **Other gains and losses**

Included in other gains and losses are realized and unrealized gains and losses as a result of foreign exchange rate fluctuations, as well as gains and losses as a result of disposals.

For the quarter ended March 31, 2019, the Company recorded a gain of \$672, compared to a gain of \$73,695 during the same quarter in the prior year. For the six months ended March 31, 2019, the Company recorded a gain of \$56,599 compared to a gain of \$76,692 during the same period in the prior year.

## Income taxes

For the three months ended March 31, 2019, deferred income tax expense was a recovery of \$457,482 as compared to a recovery of \$41,535 in the same period in the prior year. For the six months ended March 31, 2019, income tax expense was a recovery of \$898,953 as compared to an expense of \$166,633 in the same period in the prior year. The recovery in both periods is a direct result of a loss in both quarters.

## QUARTERLY INFORMATION

The table below provides a summary of operating results for the Company for each quarter in the current and previous fiscal periods. This table and commentary following illustrates some of the trends within the business and the impact on margins and profits of certain types of revenue-generating activities.

(Canadian dollars in thousands)

Fiscal year	2019	2019	2018	2018	2018	2018	2017	2017
	Q2 Mar-31	Q1 Dec-31	Q4 Sep-30	Q3 Jun-30	Q2 Mar-31	Q1 Dec-31	Q4 Sep-30	Q3 Jun-30
<b>Revenue</b>								
<i>Bluedrop Training and Simulation</i>	\$ 3,640	\$ 2,853	\$ 2,644	\$ 4,044	\$ 5,150	\$ 4,515	\$ 4,801	\$ 5,477
<i>Bluedrop Learning Networks</i>	\$ 1,383	\$ 1,036	\$ 1,165	\$ 934	\$ 975	\$ 607	\$ 563	\$ 974
	5,023	3,889	3,809	4,978	6,125	5,122	5,364	6,451
<b>Direct costs</b>	2,668	2,323	2,052	2,640	3,875	3,248	2,509	3,898
<b>Gross profit</b>	2,355	1,566	1,757	2,338	2,250	1,874	2,855	2,553
Gross profit percentage	47%	40%	46%	47%	37%	37%	53%	40%
<b>Expenses</b>								
Sales and marketing	510	564	469	531	406	382	421	401
General and administration	1,832	1,257	1,057	1,028	1,170	1,146	1,001	1,046
Research and development costs	1,610	1,169	858	881	723	507	866	629
Government assistance	(435)	(253)	(1,066)	(316)	(365)	(325)	(1,380)	(384)
Share-based compensation	1	1	2	2	3	4	5	5
Finance costs	218	293	226	323	314	395	362	97
Depreciation and amortization	171	171	173	179	234	217	214	238
Other gains and losses	(1)	(56)	(11)	(80)	(73)	(3)	(10)	344
	3,906	3,146	1,708	2,548	2,412	2,323	1,479	2,376
<b>Earnings (loss) before income taxes</b>	(1,551)	(1,580)	49	(210)	(162)	(449)	1,376	177
Income taxes (recovery)	(458)	(441)	180	(55)	(42)	(125)	(1,269)	92
<b>Net earnings (loss)</b>	\$(1,093)	\$(1,139)	\$ (131)	\$ (155)	\$ (120)	\$ (324)	\$ 2,645	\$ 85

## Fiscal 2019

During the second quarter of fiscal 2019, the company saw an increased level of revenue and direct costs compared to the first quarter as a result of improved utilization and increased software licensing in the period. Gross margin percentage increased as a result of a change in product mix associated with the delivery against higher margin projects. The quarter also saw an increase in research and development costs over the first quarter. This was a result of increased research and development for the Training and Simulation business unit related to future simulation projects.

During the first quarter of fiscal 2019, the company saw a decreased gross profit reflective of delays in several procurements during which the Company maintained its existing resource base. Research and Develop for the period increased substantially compared to all comparative quarters due to increased expenditures associated with development of additional functionality with the *Bluedrop360™* platform as well as increased expenditures related to future simulation products. Government assistance decreased substantially from the prior quarter. The prior quarter included significant government funding from a variety of programs including the National Research Council, Digital Media Tax Credit Programs, and discounts on below market interest rate loans.

## **Fiscal 2018**

During the first quarter of fiscal 2018, the Training and Simulation business unit saw a decrease in gross margin. The decrease in gross margin is a result of a change in product mix associated with the delivery against lower margin simulator projects. The quarter also saw a decrease in government assistance and research and development costs as the Boeing rear crew mission trainer reached completion in the fourth quarter of fiscal 2017.

During the second quarter of fiscal 2018, the company saw an increased level of revenue and direct costs compared to the first quarter. Despite increased revenue, the gross margin percentage remained low as a result of a change in product mix associated with the delivery against lower margin simulator projects. The quarter also saw an increase in research and development costs over the first quarter. This was a result of increased research and development for the Training and Simulation business unit related to future simulation projects.

During the third quarter of fiscal 2018, the company saw a decreased level of revenue and direct costs and an increase in gross profit percentage as a result of a change in product mix associated with the completion of the simulator projects in the prior quarter. The Company continued to incur increased research and development costs for the Training and Simulation business unit related to future simulation projects.

During the fourth quarter of fiscal 2018, the company saw a decreased level of revenue and direct costs. The gross profit percentage of 46% is consistent with the prior quarter, and higher than the first two quarters of the fiscal year as lower margin simulator projects were completed in the first half of the fiscal year. Government assistance increased substantially from the prior quarter. The increase was primarily due to an increase in discounts on below-market interest rate debt of \$454,132 primarily associated with funds drawn against the Strategic Innovation Fund facility.

## **Fiscal 2017**

During the third quarter of fiscal 2017 revenues remained strong and the Company continued to control costs as gross margins were 40%. The quarter saw a provision for an aging customer balance from the Learning Networks business unit being impaired resulting in a \$339,119 charge to the consolidated statement of comprehensive income during the quarter. The Company revalued the unsecured royalty obligation during the quarter due to a change in forecasted future cashflows. This resulted in a gain of \$337,400 which is included in finance costs in the consolidated statements of comprehensive income. The Company also completed the Boeing rear crew mission trainer in the third quarter and, as a result, government assistance decreased for that period.

During the fourth quarter of fiscal 2017, the Company continued normal levels of operating activities. Higher government assistance was recognized as the Company recognized additional funding on a below-market interest rate loan and ongoing DMTC programs remained strong. Finance costs returned to normal levels during the quarter as the revaluation of a financial liability in the third quarter resulted in a gain offsetting these costs. In addition, the Company recognized \$1.3 million of additional tax assets associated with previously unrecognized tax losses.

## **LIQUIDITY AND CAPITAL RESOURCES**

For the six months ended March 31, 2019, the Company used cash of \$796,224 (2017 – \$1,611,803).

### **Operating activities**

For the six months ended March 31, 2019, the Company consumed cash from operating activities of \$623,760 compared to cash consumption of \$715,759 for the same period in the prior year.

Changes in non-cash working capital related to operating activities generated cash of \$1,984,319 during the period. This was primarily driven by a decrease in accounts receivable of \$1,959,465 mainly due to collection of Digital Media Tax Credits during the period.

### **Investing activities**

For the six months ended March 31, 2019, the Company consumed cash of \$361,998 from investing activities compared to cash generated of \$2,977,198 for the same period in the prior year. The decrease in cash is a result of the purchase of property and equipment in the quarter. The increase of cash in the prior period was a result of a decrease of restricted cash of \$3,000,000 which was used to retire the unsecured convertible debenture during the first quarter of the prior fiscal period.

## Financing activities

For the six months ended March 31, 2019, the Company generated cash of \$189,534 in financing activities as compared to \$3,873,242 cash consumed from financing activities for the same period in the prior year.

During the period, the Company repaid long term debt totaling \$1,222,047 and drew an additional \$470,432 of funding against the Strategic Innovation Fund facility. In addition, the company generated cash of \$1,127,446 as a result of share options exercised in the period.

## Cash and credit availability

As at March 31, 2019, the Company held cash of \$862,909.

The Company has a short-term bank operating line of credit that was renewed on April 23, 2018. The line of credit is a maximum of the lesser of \$2,500,000 and defined marginable accounts receivable minus specified liabilities. The revolving facility is repayable on demand and bears interest at Royal Bank prime plus 2.20%. The Company has provided a General Security Agreement as security for this indebtedness. At March 31, 2019, the line of credit was undrawn.

## CONTRACTUAL OBLIGATIONS

The following table contains a summary of the Company's contractual obligations and commitments to make future payments under contracts including debt, finance leases and operating leases at March 31, 2019:

<b>Scheduled payments due by period</b> (Canadian dollars in thousands)	<b>Long term debt</b>	<b>Finance leases</b>	<b>Operating leases</b>	<b>Total</b>
2019 (Year ended September 30th)	1,370	13	429	1,812
2020	888	19	861	1,768
2021	811	5	870	1,686
2022	735	-	567	1,302
2023	600	-	496	1,096
Thereafter	1,353	-	422	1,775
	<b>\$ 5,757</b>	<b>\$ 37</b>	<b>\$ 3,645</b>	<b>\$ 9,439</b>

## FINANCIAL INSTRUMENTS AND RISK MANAGEMENT

The Company's financial assets and liabilities are exposed to various risk factors that may affect the fair value presentation of the amount ultimately received or paid on settlement of its assets and liabilities.

A summary of the major financial instrument risks and the Company's approach to management of these risks are outlined below:

### Interest rate risk

The Company's obligations under finance leases are at fixed interest rates. A significant portion of long-term debt is at interest rates which are fixed or are non-interest bearing. As at March 31, 2019, the Company was in compliance with contract terms associated with long-term debt arrangements. As such, the Company's exposure to fluctuations in interest rates is not considered material.

### Currency risk

Currency risk is the risk to the Company's earnings that arise from fluctuations of foreign exchange rates and the degree of volatility of these rates. The Company is exposed to foreign currency exchange risk on transactions incurred in US dollars. During the six months ended March 31, 2019, the Company recorded a \$8,242 loss on foreign currency (2018 - \$60,563 gain). The Company monitors fluctuations in exchange rates and uses derivative instruments to reduce its exposure to foreign currency risk.

During the six months ended March 31, 2019, the Company recorded revenue of \$4,238,327 from contracts denominated in US dollars (2018 - \$5,812,385).

As at the March 31, 2019, the Company held receivables of \$881,525 from contracts denominated in US dollars (September 30, 2018 - \$2,749,315).

### Non-hedge designated derivative instruments

At March 31, 2019, the Company had no outstanding foreign exchange contracts.

### Credit risk

Credit risk arises from the potential that a counter party will fail to perform its obligations. The Company is exposed to credit risk from customers. In order to reduce its credit risk, the Company reviews a new customer's credit history before extending credit and conducts regular reviews of its existing customers' credit performance. The Company's maximum exposure to credit risk corresponds to the carrying value of accounts receivable and unbilled work in progress. Two customers accounted for 55% of revenue (2018 – three customers - 69%) and three customers accounted for 44% of the Company's trade receivables at March 31, 2019 (September 30, 2018 – two customers - 81%).

An allowance for doubtful accounts is established based upon factors surrounding the credit risk of specific accounts, historical trends and other information. The allowance for doubtful accounts at March 31, 2019, was \$233,352 (September 30, 2018 - \$222,536). At March 31, 2019, the Company's trade accounts receivable included amounts over 90 days old totaling \$133,903 which were not considered to be impaired and therefore not included in the allowance for doubtful accounts (September 30, 2018 - \$1,078,192).

### Liquidity risk

Liquidity risk is the risk that the Company may not have cash available to satisfy financial liabilities as they come due. The Company actively maintains a committed credit facility to ensure that it has sufficient funds to meet current and foreseeable future financial requirements at a reasonable cost.

## SHARE INFORMATION

As at May 29, 2019 the Company had issued 107,657,793 common shares.

The Company has reserved a maximum of 16,827,718 of common shares of the Company for issuance on the exercise of share options under a stock option plan. As at May 29, 2019, no share options were outstanding under the plan.

The Company has an employee share purchase plan which permits employees to subscribe to common shares of the Company through payroll deductions. The Company may provide financial assistance with respect to the plan by way of loan, guarantee or otherwise. The Company has reserved a maximum of 2,969,597 common shares under the employee share purchase plan. As at May 29, 2019, no shares were outstanding under the plan.

### Normal Course Issuer Bid

On March 31, 2017, the Company received approval from the TSX Venture Exchange for a normal course issuer bid to acquire up to an aggregate of 5,052,889 outstanding common shares. 2,218,000 common shares were repurchased under the plan at an average price of \$0.18 per share. The bid expired on March 31, 2018.

On March 26, 2018, the Company received approval from the TSX Venture Exchange for a further normal course issuer bid to acquire up to an aggregate of 4,962,464 outstanding common shares. 1,175,500 common shares had been repurchased under the plan at an average price of \$0.16 per share. The bid expired on March 30, 2019.

During the six month ended March 31, 2019, 219,500 shares were purchased for \$28,640. The purchases resulted in a decrease to share capital and deficit of \$10,975 and \$17,665, respectively.

## RELATED PARTY TRANSACTIONS

Transactions with related parties are in the normal course of operations and are measured at the exchange amount, which is the amount of consideration established and agreed to by the related parties. Significant related party transactions are reviewed and approved by the Audit Committee of the Board. The following is a summary of related party transactions during the six months ended March 31, 2019:

- The Company recorded rent expense of \$146,160 for the six months ended March 31, 2019 (2018 - \$146,160) for rental of premises from a company controlled by Emad Rizkalla, the Company's President & Chief Executive Officer. Effective October 1, 2011 the Company entered a 6-year lease, with a 4-year renewal option, for 100% of the premises available for lease at 18 Prescott Street, St. John's, NL. On September 28, 2017, the Company renewed the lease for the four-year renewal term, which expires on September 30, 2021. The lease includes an initial net lease rate for two years with escalation provisions periodically thereafter.
- The Company recognized an expense of \$568,961 for the six months ended March 31, 2019 (2018 - \$421,550) for fees, salaries and benefits to its key management personnel for services rendered. Key management is considered to be members of the Board of Directors, the President & Chief Executive Officer and the Chief Financial Officer. The Executive Chairman's fees are paid to a corporation under his control.
- The Company recognized no share-based compensation expense related to its key management personnel (as described above) for the six months ended March 31, 2019 (2018 - \$2,031).
- The Company has provided share purchase loans to a company controlled by Derrick Rowe, the Executive chairman of the Company. As collateral for the non-interest-bearing share purchase loans, the borrower has granted the Company a security interest in a portion of the shares purchased. As at March 31, 2019, the aggregate balance of the notes were \$169,816 (March 31, 2018 - \$169,816). The maturity date of the notes is December 31, 2019.

## ACCOUNTING ESTIMATES

In the process of applying the Company's accounting policies, management has made certain judgments, estimates, and assumptions which affect the amounts recognized in the Consolidated Financial Statements. The Company has identified the following policies where critical judgments, estimates and assumptions are made and where actual results could be materially different.

### Significant management judgements

The following are significant management judgements in applying the accounting policies that have the most significant impact on the financial statements:

(a) Revenue recognition

Revenue from services contracts is recognized on a percentage of completion basis, measured by the percentage of costs incurred to date to the estimated total costs for each contract. Judgment is used in determining the stage of completion and estimates of costs to complete. The Company employs sophisticated project management tools to assist with the management of projects and the recognition of revenue on a percentage completion basis. Management regularly reviews the systems, processes, and calculations relating to percentage completion on significant contracts, making adjustments as required.

(b) Income taxes

Uncertainties exist with respect to the interpretation of complex tax regulations and the amount and timing of future taxable income. The Company records income tax expense (recovery) based on management's interpretation of the tax regulations and its assumptions about the timing of income and expenses for tax purposes. Actual tax assessments or future changes to assumptions could result in future adjustments to recorded tax expense.

The Company recognized deferred tax assets in the Company's financial statements for the three months ended March 31, 2019. Management considers that it is more likely than not that these tax assets will be realized. The ultimate realization of these assets is dependent upon the Company's ability to generate sufficient taxable income to offset the tax losses carried forward as well as the reversal of the differences between the carrying amount of items on the statement of financial position and their corresponding tax basis. If future circumstances indicate that it is no longer probable that these tax assets will be realized, the carrying value of the tax asset will be reduced, resulting in a charge against income and a reduction of equity.

(c) Government assistance

The Company receives government assistance pursuant to specific contractual funding agreements and is also eligible to receive cash tax credits under the Scientific Research and Experimental Development (SRED) and Digital Media Tax Credit (DMTC) programs. Claims relating to specific funding agreements are based on the defined eligible costs pursuant to the agreements. Contributions are recognized when the related expenditures are incurred and/or when significant milestones have been achieved in a funded project.

Credits under the SRED and DMTC programs are recorded when amounts can be reasonably estimated, and receipt is reasonably assured. Government assistance may be overstated if the underlying project is determined to be ineligible or if certain costs claimed are determined to be ineligible.

(d) Development costs

Distinguishing the research and development phases of internal development projects and determining whether the recognition requirements for the capitalization of development costs are met requires judgement. After capitalization, management monitors whether the recognition requirements continue to be met and whether there are any indicators that capitalized costs may be impaired.

(e) Classification of financial arrangements

The Company has entered into complex financing arrangements in the form of conditionally repayable government grants with below-market interest rates. Management uses significant judgement in selection and application of accounting policies related to these arrangements.

(f) Deferred development funding

The Company has entered into an arrangement with a third party whereby the third party has provided Bluedrop with funding towards development costs under Canada's Industrial and Regional Benefits (IRB) Policy in a non-exchange transaction. While the funding is not provided directly from government, the substance of the transaction is an indirect form of government assistance with the third party acting as an intermediary between a Government agency and Bluedrop. As such the arrangement has been accounted for in accordance with IAS 20 - Accounting for Government Grants and Disclosure of Government Assistance.

### Estimation uncertainty

The following are significant estimates used in recognition and measurement of assets, liabilities, income and expense. The actual results may differ from these estimates:

(a) Fair value of financial liabilities

The Company has received long term debt financing at below-market interest rates and through issue of convertible notes. The fair value of these financial liabilities is determined using discount rates expected to be incurred on similar debt in a fair market. Management has exercised judgement in estimating the applicable discount rate used in measuring the fair value of financial liabilities at below-market interest rates.

(b) Impairment of non-financial assets

In assessing impairment, management estimates the recoverable amount of each asset or cash-generating units, based on expected future cash flows, and uses an interest rate to discount them. Estimation uncertainty relates to assumptions about future operating results and the determination of a suitable discount rate.

(c) Revenue recognition

Revenue from services contracts is recognized on a percentage of completion basis, measured by the percentage of costs incurred to date to the estimated total costs for each contract. Changes to the estimate of percentage complete or estimated costs to complete could have a material impact on the carrying values of work in progress or deferred revenue and a material impact on future revenue.

(d) Share-based compensation

Management has made certain estimates and assumptions when calculating the fair value of share options. The significant assumptions include estimates of expected volatility, expected life and expected risk-free rate of return. Management also makes certain assumptions with respect to the number of options expected to vest. Changes in these assumptions may result in a material change to share-based compensation expense.

(e) Work in progress

Work in progress is stated at cost and includes direct labour and materials relating to ongoing internal projects. Management expects to enter into contracts and earn profits from work in progress costs at margins for similar products and services. To the extent management does not expect to recover the work in progress costs, they are expensed in the statement of operations.

(f) Income tax expense

Management has made certain estimates related to income tax filing positions subject to acceptance by the tax authorities. Changes in these assumptions may result in a material change to taxes payable and income tax expense.

## NEW AND FUTURE ACCOUNTING STANDARDS

The following new or amended standards are effective for annual periods beginning on or after the dates indicated below, with earlier adoption permitted. The Company has not early adopted these standards and is currently assessing the impact they will have on its consolidated financial statements.

(a) IFRS 16: Leases

This standard introduces a single lessee accounting model and requires a lessee to recognize assets and liabilities for all leases with a term of more than 12 months, unless the underlying asset is of low value. 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 obligation to make lease payments.

This standard substantially carries forward the lessor accounting requirements of IAS 17, while requiring enhanced disclosures to be provided by lessors. Other areas of the lease accounting model have been impacted, including the definition of a lease. Transitional provisions have been provided.

The Company intends to adopt IFRS 16 in its financial statements for the annual period beginning on October 1, 2019. The extent of the impact of adoption of the standard has not yet been determined.

(b) Annual Improvements to IFRS Standards (2015-2017) Cycle

On December 12, 2017 the IASB issued narrow-scope amendments to three standards as part of its annual improvements process. The amendments are effective on or after January 1, 2019, with early application permitted. Each of the amendments has its own specific transition requirements. Amendments were made to the following standards:

- IFRS 3 Business Combinations and IFRS 11 Joint Arrangements - to clarify how a company accounts for increasing its interest in a joint operation that meets the definition of a business;
- IAS 12 Income Taxes – to clarify that all income tax consequences of dividends are recognized consistently with the transactions that generated the distributable profits – i.e. in profit or loss, OCI, or equity; and
- IAS 23 Borrowing Costs – to clarify that funds borrowed specifically to finance the construction of a qualifying asset should be transferred to the general borrowings pool once the construction of the qualifying asset has been completed. They also clarify that an entity includes funds borrowed specifically to obtain an asset other than a qualifying asset as part of general borrowings.

The Company intends to adopt these amendments in its financial statements for the annual period beginning on October 1, 2019. The extent of the impact of adoption of the amendments has not yet been determined.

(c) IFRIC 23 Uncertainty over Income Tax Treatments

On June 7, 2017, the IASB issued IFRIC Interpretation 23 Uncertainty over Income Tax Treatments. The Interpretation provides guidance on the accounting for current and deferred tax liabilities and assets in circumstances in which there is uncertainty over income tax treatments. The Interpretation is applicable for annual periods beginning on or after January 1, 2019. Earlier application is permitted. The Interpretation requires:

- an entity to contemplate whether uncertain tax treatments should be considered separately, or together as a group, based on which approach provides better predictions of the resolution;
- an entity to determine if it is probable that the tax authorities will accept the uncertain tax treatment; and
- if it is not probable that the uncertain tax treatment will be accepted, measure the tax uncertainty based on the most likely amount or expected value, depending on whichever method better predicts the resolution of the uncertainty.

The Company intends to adopt the Interpretation in its financial statements for the annual period beginning on October 1, 2019. The extent of the impact of the change has not yet been determined.

(d) Amendments to References to the Conceptual Framework in IFRS Standards

On March 29, 2018 the IASB issued a revised version of its Conceptual Framework for Financial Reporting (the Framework), that underpins IFRS Standards. The IASB also issued Amendments to References to the Conceptual Framework in IFRS Standards (the Amendments) to update references in IFRS Standards to previous versions of the Conceptual Framework. Both documents are effective from January 1, 2020 with earlier application permitted.

Some Standards include references to the 1989 and 2010 versions of the Framework. The IASB has published a separate document which contains consequential amendments to affected Standards so that they refer to the new Framework, with the exception of IFRS 3 Business Combinations which continues to refer to both the 1989 and 2010 Frameworks.

The Company does not intend to adopt the Amendments in its financial statements before the annual period beginning on October 1, 2020. The extent of the impact of the change has not yet been determined.

## **NON-GAAP FINANCIAL MEASURES**

This MD&A includes non-GAAP financial measures. Non-GAAP measures do not have a standardized meaning prescribed by the Company's GAAP and therefore should not be compared with similar measures presented by other companies. Management has provided these measures as we believe they are useful supplemental information to users of the Company's financial statements and MD&As. These measures should not be used as an alternative for performance measures calculated in accordance with GAAP.

### **(a) Backlog**

Backlog is a non-GAAP measure that represents the expected value of orders we have received but have not yet executed. The Company considers an item part of backlog when we have a legally binding commercial agreement with a client that includes enough detail about each party's obligations to form the basis for a contract or an order. Some contracts are executed over a long-term period and are subject to renewal periods. A contract renewal item is only included in backlog when the customer has authorized the renewal.

## **DISCLOSURE CONTROLS AND PROCEDURES AND INTERNAL CONTROLS OVER FINANCIAL REPORTING**

Disclosure controls and procedures ("DC&P") are intended to provide reasonable assurance that material information is gathered and reported to senior management to permit timely decisions regarding public disclosure. Internal controls over financial reporting ("ICFR") are intended to provide reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated financial statements for external purposes in accordance with Canadian generally accepted accounting principles. TSX Venture-listed companies are not required to provide representations in their annual and interim filings relating to the establishment and maintenance of DC&P and ICFR, as defined in Multinational Instrument MI 52-109.

In particular, the CEO and CFO certifying officers do not make any representations relating to the establishment and maintenance of (a) controls and other procedures designed to provide reasonable assurance that information required to be disclosed by the issuer in its annual filings, interim filings or other reports filed or submitted under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation, and (b) processes to provide reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated financial statements for external purposes in accordance with the issuer's GAAP.

## **RISK FACTORS**

The Corporation's business is subject to a number of risks and uncertainties. The primary risks and uncertainties are described below.

### **(a) Bluedrop's revenue and operating results can be difficult to predict and can fluctuate, which may harm results of operations**

Bluedrop's revenue is difficult to forecast and may fluctuate from quarter to quarter. In addition, Bluedrop's operating results may not follow any past trends. The factors affecting Bluedrop's revenue and results, many of which are outside of Bluedrop's control, include:

- limited number of long-term purchase commitments from customers and the risk that those contracts will not lead to revenues as expected or at all;
- competitive conditions in the industry, including Bluedrop's strategic initiatives or Bluedrop's competitors, new products or services, product or services announcements and changes in Bluedrop's pricing policy or Bluedrop's competitors;
- market acceptance of Bluedrop's products and services;

- Bluedrop's ability to maintain existing relationships and to create new relationships with channel partners;
- varying size, timing and contractual terms of orders for Bluedrop's products and services, which may delay the recognition of revenues;
- the discretionary nature of purchase and budget cycles of Bluedrop's end users and changes in their budgets for, and timing of, learning and training related purchases;
- the length and variability of the sales cycle for Bluedrop's products;
- Bluedrop's strategic decisions or Bluedrop's competitors, such as acquisitions, divestitures, spin-offs, joint ventures, strategic investments or changes in business strategy;
- product stability and security could be compromised;
- recruitment and retention of management and other personnel is critical to Bluedrop's ability to develop, market and support its products and services as planned;
- general weakening of the Canadian economy resulting in a decrease in the overall demand for learning and training related products and services or otherwise affecting the capital investment level of businesses with respect to Bluedrop's simulator training systems; and
- timing of product development and new product initiatives.

Because Bluedrop's revenue is dependent upon a relatively small number of customers, even minor variations in the rate and timing of conversion of its sales prospects into revenue could cause Bluedrop to plan or budget inaccurately, and those variations could adversely affect Bluedrop's financial results. Delays, reductions in the amount or cancellations of end-user's purchases would adversely affect Bluedrop's business, results of operations and financial condition.

Any of the foregoing factors could have a material adverse effect on Bluedrop's business, results of operations or financial condition.

(b) Failure to manage Bluedrop's business or growth successfully may adversely affect its operating results

Bluedrop's ability to manage its business will be substantially dependent upon Bluedrop's ability to efficiently and effectively allocate resources to conduct research and development, launch new products and software in a timely and efficient manner, provide sales and marketing activities, provide adequate financial management and provide customer support services. Accordingly, Bluedrop's future results of operations will depend on the continuing ability of Bluedrop's officers and other key employees to conduct business effectively and to improve operations. Bluedrop's ability to support the growth of its business will be substantially dependent on having in place highly-trained employees and sufficient internal and third-party resources. Failure to manage successfully any such business shortfalls may have a material adverse effect on Bluedrop's business, results of operations and financial condition.

(c) Bluedrop's success depends on its ability to develop new products and services and enhance its existing products and services

To keep pace with technological developments, satisfy increasingly sophisticated customer requirements and achieve market acceptance of its products and services, Bluedrop must enhance and improve existing products and services and also continue to introduce new products and services. If Bluedrop is unable to successfully develop new products and services or enhance and improve its existing products and services or if Bluedrop fails to position and/or price its products and services to meet market demand, Bluedrop's business and operating results will be adversely affected.

Accelerated product introductions and short software life-cycles require high levels of expenditures for research and development that could adversely affect Bluedrop's operating results. Further, any new products or software Bluedrop develops could require long development and testing periods and may not be integrated in a timely manner or may not achieve the broad market acceptance necessary to generate significant revenue.

(d) Weaker than expected market acceptance of new products and services or new versions of Bluedrop's current products and services

Bluedrop's business may be adversely affected if its new products and services or new features do not achieve acceptance among customers. Bluedrop has developed and is continuing to develop products and services incorporating new technology and will pursue those products and services that Bluedrop expects to have the best chance for success based on Bluedrop's expectations of future market demand. However, there can be no assurances that development-stage products and software will be successfully completed or, if developed, will achieve significant customer acceptance. If Bluedrop is unable to successfully define, develop and introduce competitive new products

and services, and enhance existing products and services, Bluedrop's business, financial condition and results of operations could be materially adversely affected.

- (e) Bluedrop is dependent on the expansion of its current, and development of new, distribution channels

Bluedrop sells its products and services directly to its customers and to parties with whom Bluedrop has strategic relationships. Bluedrop expects to continue to utilize these relationships to sell to companies and organizations that will utilize its products and services.

A material loss of any customers or strategic partners, either as a result of competitive products and services offered by other companies or Bluedrop's inability to penetrate its respective market segment, could have a material adverse effect on Bluedrop's business, financial condition and results of operations. There can be no assurances that Bluedrop will continue to attract customers and strategic partners and any inability to do so could materially adversely affect Bluedrop's business, financial condition and results of operations.

- (f) Bluedrop's ability to recruit and retain management and other qualified personnel is crucial to its ability to develop, market and support its products and services

Bluedrop's continued growth and success is largely dependent on the experience, abilities and dedication of its management and technical personnel. As Bluedrop expands in areas and activities requiring additional expertise, it will require additional management and technical personnel. The market is tight, and competition is intense for highly-skilled management, technical, research and development people and other employees to support Bluedrop's growth. Loss of the services of any of its key officers or employees, or failure to recruit additional key executive and technical personnel may adversely affect Bluedrop's ability to promptly satisfy its customer needs and may therefore impede Bluedrop's growth objectives. There can be no assurances that Bluedrop can retain its current key officers and employees or attract and retain additional key employees to support Bluedrop's growth. The loss of certain key employees could have a significant impact on Bluedrop's business, results of operations and financial condition.

- (g) If Bluedrop's intellectual property is not adequately protected, Bluedrop may lose its competitive advantage.

Bluedrop relies on a combination of contractual provisions, copyright, trademarks, trade secrets and licenses to establish and protect its proprietary rights. Despite Bluedrop's best efforts to protect its intellectual property rights, unauthorized parties may attempt to copy aspects of Bluedrop's products and services to obtain information Bluedrop regards as proprietary. Policing unauthorized use of Bluedrop's proprietary technology, if required, may be difficult, time-consuming and costly. There can be no assurances that Bluedrop's means of protecting its proprietary rights will be adequate. Failure to protect its proprietary rights could have a material adverse effect on Bluedrop's business, results of operations and financial condition.

To protect its intellectual property, Bluedrop may become involved in litigation, which could result in substantial expenses, divert the attention of its management, cause significant delays, materially disrupt the conduct of its business or adversely affect its revenue, financial condition and results of operations.

- (h) If Bluedrop is unable to maintain the security of its systems, its business, financial condition and operating results could be harmed

The occurrence of a security breach, or perception of such a breach, in the operation of Bluedrop's business or by third parties using Bluedrop's products and services could harm its business, financial condition and operating results. Bluedrop may have access to confidential information, including passwords, financial information or other personal information from Bluedrop's customers. If, in handling this information, Bluedrop fails to comply with its customer's privacy policies or applicable privacy and security laws, Bluedrop could incur civil liability to government agencies, customers and individuals whose privacy was compromised. In addition, third parties may attempt to breach Bluedrop's security or inappropriately use Bluedrop's products and services through computer viruses, electronic break-ins and other disruptions. If successful, confidential information may be improperly obtained and Bluedrop could be subject to lawsuits and other liability. Any internal or external security breaches could harm Bluedrop's reputation and any perception of security risks, whether or not valid, could inhibit market acceptance of Bluedrop's products and services.

- (i) Bluedrop may be unable to identify and complete acquisitions, and acquisitions could divert management's attention and financial resources, may negatively affect Bluedrop's operating results, and could cause significant dilution to shareholders

Bluedrop may seek to further expand operations by acquiring additional complementary businesses, products or technologies. There can be no assurances that Bluedrop will be able to identify, acquire or profitably manage additional businesses or successfully integrate any acquired businesses, products, services or technologies into Bluedrop's business units without substantial expense, delays or other operational or financial problems. Furthermore, acquisitions may involve a number of special risks, including diversion of management's attention, expenses of amortizing the acquired company's intangible assets, failure to retain key personnel, unanticipated events or circumstances and legal liabilities, some of which could have a material adverse effect on Bluedrop's business, results of operations and financial condition. Acquisitions could also result in the potentially dilutive issuance of equity securities. Any failure to manage Bluedrop's acquisition strategy successfully could have a material adverse effect on Bluedrop's business, results of operations and financial condition.

- (j) Products and software issues may result in increases in Bluedrop's costs and/or lost revenue opportunities

Bluedrop's products and technologies are complex. Although Bluedrop employs vigorous testing and quality assurance, its products and software may contain defects or errors, particularly when first introduced or as new versions are released. Bluedrop may not discover such defects or errors until after a product or service has been released and used by the end-users. Defects and errors in Bluedrop's products and services could materially adversely affect its reputation, result in significant costs to Bluedrop, delay planned release dates and impair Bluedrop's ability to sell its products and services in the future. The costs incurred in correcting any product defect or error may be substantial and could adversely affect Bluedrop's operating margins. While Bluedrop plans to continually test its products and services and to work with end-users to identify and correct defects and errors, defects and errors in Bluedrop's products may still be found in the future.

- (k) System failure could harm Bluedrop's reputation and operating results

System network failure or disruption of service, whether within Bluedrop's control or third parties, could impair Bluedrop's customers' ability to utilize its products and services for an indeterminate period of time. Bluedrop's operations depend upon its ability to maintain and protect computer systems within Bluedrop's facilities.

- (l) Growth in the learning and training software business may not continue

The overall market for learning and training software products and services has experienced significant growth in recent years. There can be no assurances that the market for Bluedrop's products and services will continue to grow, that firms and organizations within the industries will adopt Bluedrop's products and services to train their employees or that Bluedrop will be able to independently establish additional markets for its products and services. If the various markets in which Bluedrop's products and services compete fail to grow or grow more slowly than Bluedrop currently anticipates, or if Bluedrop is unable to establish markets for its new products and services, its business, results of operations and financial condition could be materially adversely affected.

- (m) Increased competition could have an adverse effect on Bluedrop's business

The markets for Bluedrop's products and services are highly competitive. As some of these markets continue to develop, additional competitors with more established and larger marketing and technical resources than Bluedrop may enter the market and competition may intensify. In addition, current competitors may develop products and services that are comparable or superior to Bluedrop's products and services or achieve greater market acceptance due to pricing, sales channels or other factors.

As the demand for Bluedrop's products and services increases, the quality, functionality and breadth of competing products and services will likely improve, and new competitors may enter the market. Further, the adoption of widespread industry standards may make it easier for new market entrants or existing competitors to improve their existing products and services, to offer some or all of the products and services Bluedrop offers or may offer in the future, or to offer new products or services that Bluedrop does not offer. Bluedrop can provide no assurances that its products and services will compete successfully with the products and services of Bluedrop's competitors.

Bluedrop's ability to successfully differentiate itself from its competitors and thereby establish a sustainable and profitable presence and effectively compete in the learning and training software market cannot be assured. Competitors are seeking to gain market share by introducing new technology and new products and services which may make it more difficult to sell Bluedrop's products and services. Activities of Bluedrop's competitors could have a negative impact on Bluedrop by creating increased pricing pressure, reduce profit margins, increasing sales and

marketing expense or result in the loss of Bluedrop's market share. If Bluedrop is unable to effectively respond to these competitive factors, its business, results from operations and financial condition could be materially adversely affected.

(n) Third parties may allege that Bluedrop infringes on their intellectual property

The industries in which Bluedrop competes have other participants, who own, or claim to own, intellectual property. Although Bluedrop has conducted prudent reviews of Bluedrop's products and software to ensure that it does not knowingly use unlicensed intellectual property, third parties may allege that Bluedrop infringes on their intellectual property. Should such an allegation be made, the outcome of any litigation is impossible to predict and, should the outcome be unfavourable to it, Bluedrop may not be able to negotiate acceptable, or indeed any, licensing terms. Such an event could materially adversely affect Bluedrop's business, results of operations and financial condition.

In addition, some of Bluedrop's competitors have, or are affiliated with companies having, substantially greater resources than Bluedrop and these competitors may be able to sustain the costs of complex intellectual property litigation to a greater degree and for a longer period of time than Bluedrop. Regardless of their merit, any such claims could:

- be time consuming to evaluate and defend;
- result in costly litigation;
- cause product or service delivery delays or stoppages;
- subject Bluedrop to significant liabilities;
- require Bluedrop to enter into costly royalty or licensing agreements; and
- require Bluedrop to modify or stop using the infringing technology.

(o) A continued general economic downturn may negatively affect Bluedrop

A continued downturn in the global economic environment has the potential to negatively impact Bluedrop in a number of respects, including:

- impaired ability to reliably forecast revenue and profitability;
- increased pressure to reduce selling prices;
- increased potential for cancellation or loss of sales opportunities; and
- customers may experience financial difficulty leading to increased accounts receivable collection risk.

Market volatility and uncertainty in the global financial and credit markets could cause many of Bluedrop's corporate and governmental customers to reduce their level of capital and operating expenditures. Decreased capital and operating spending could have a material adverse effect on the demand for Bluedrop's products and services and business, results of operations, cash flows and overall financial condition.

Volatility in the financial markets may adversely impact the availability of credit and funding already arranged and the availability and cost of credit and capital in the future, which could result in the delay or cancellation of possible future acquisitions. The disruptions in the financial markets may have an adverse impact on regional and world economies and credit markets which could negatively impact the capital and operating expenditures of Bluedrop's corporate and government customers. These conditions may reduce the willingness or ability of customers and prospective customers to commit funds to purchase Bluedrop's products and services, or their ability to pay for Bluedrop's products and services after purchase or initial subscription. These conditions could result in bankruptcy or insolvency for Bluedrop's corporate customers which would impact Bluedrop's revenues and cash collections. These conditions could also result in pricing pressure, less favourable financial terms and an increased level of risk assumed in Bluedrop's contracts. Bluedrop is unable to predict the likely duration and severity of the current disruption in global financial markets and adverse economic conditions in North America and around the world.

(p) Economic and geopolitical uncertainty may negatively affect Bluedrop

The market for Bluedrop's products and services depends on economic and geopolitical conditions affecting the broader market. Economic conditions globally are beyond Bluedrop's control. In addition, acts of terrorism and the outbreak of hostilities and armed conflicts between countries can create geopolitical uncertainties that may affect the global economy. Downturns in the economy or geopolitical uncertainties may cause end-users to delay, reduce or cancel orders or subscriptions for Bluedrop's products and services, any of which could have a material adverse effect on Bluedrop's business, results of operations and financial position.

- (q) Bluedrop derives a substantial part of its revenue from a few key customers

A key element of Bluedrop's business strategy is to expand the market for its products and services by expanding its relationships with major defence contractors and governmental agencies in the learning and training software business. In order to implement that strategy, Bluedrop will have to foster its existing relationships, and to form new relationships with defence contractors, governmental agencies and other corporate entities. There can be no assurance that Bluedrop will be able to develop additional relationships that existing relationships will continue or be successful in achieving their purposes, or that such companies or organizations will not form competing relationships.

- (r) Bluedrop's revenues are substantially concentrated in two market categories

The Training and Simulation Business generated 73% of Bluedrop's revenues, and the Learning Networks Business generated 27% of Bluedrop's revenues, in the financial six months ended March 31, 2019. A decline in demand for these products and services as a result of competition, technological change or other factors could have a material adverse effect on Bluedrop's business, results of operations and financial condition.

Bluedrop's business strategy includes plans to diversify sources of revenue by expanding its product and service offerings in the Training and Simulation Business and by expanding its sales channels and courseware content portfolio for the Learning Networks Business.

- (s) Bluedrop's business faces risks associated with public budgets, spending policies and government assistance programs

Bluedrop sells its products and services to, among other customers, governments and governmental entities. These sales are subject to specific additional risk, such as delays in funding, termination of contracts or sub-contracts at the convenience of the government, termination, reduction or modification of contracts or sub-contracts in the event of changes in the government's policies or as a result of budgetary constraints, and increased or unexpected costs resulting in losses or reduced profits under fixed price contracts.

Bluedrop's business also relies on government assistance programs such as federal and provincial tax credit programs. These programs can be amended or terminated by the applicable government with little or no notice to Bluedrop. Bluedrop's claims under these assistance programs may also be rejected, which could negatively impact Bluedrop's income and financial condition.

- (t) Bluedrop's revenues from customer contracts are subject to the creditworthiness of its customers

Credit risk arises from the potential that a customer or counterparty will fail to meet its contractual obligations. Concentration of credit risk may arise from exposure to a single debtor or to a group of debtors having similar characteristics, such as their ability to meet their obligations, or their expectation to be similarly affected by changes in economic or other conditions. Bluedrop utilizes credit evaluation, approval and monitoring processes intended to mitigate potential credit risks with respect to trade receivables. Bluedrop's maximum exposure to credit risk, with respect to accounts receivable and unbilled work in progress corresponds to the carrying value.

- (u) Bluedrop's ability to obtain funding from new equity or additional debt may be limited

Bluedrop depends on equity and debt financing to fund the ongoing development of the Corporation's technology assets. Raising additional funding on a timely basis may be adversely impacted by uncertain market conditions and the availability of appropriate financing opportunities. Bluedrop's inability to access sufficient funding for its operations or any intended acquisitions could have an adverse effect on its financial condition.

## OUTLOOK

The Company continues to take steps toward strengthening the balance sheet through improved operations and entering into several significant financing arrangements. On May 16, 2018, it was announced that the Company will receive a repayable investment of up to \$7.6 million through the federal government Strategic Innovation Fund. The funding will be used to support research and development and will help to create and maintain employment by supporting the design and development of next generation aerospace and marine simulation and training products.

The Company remains fully committed to the product strategy and goal of transforming Bluedrop into more of a product and proprietary technology based business while still growing its services business. This transformation is expected to take some time to be fully realized and management does not anticipate major unit volumes or major service volumes to be realized within the early stages of the launch. The Company continued to target key initial accounts to validate the products and platform services in 2019 that will add revenues but more importantly provide the industry validation needed to scale the opportunities.

The Bluedrop Training and Simulation business unit had a relatively slow start to the 2019 fiscal year as a result of contract procurement delays. The business unit continued to make significant advances in developing its core product technologies. The recently developed Chinook Rear Crew Mission Trainer ("RCMT"), which was completed and delivered to Boeing during the fourth quarter of fiscal 2017, is a unique training device that allows rear crew operators to rehearse missions and specific tasks in a virtual and augmented reality environment. The product has been designed to allow for further cost-effective adaptations of the RCMT and part task trainers to other Original Equipment Manufacturer ("OEM") platforms for additional rotary wing or fixed wing configurations for both defence or civilian training applications. The business unit has continued to advance its simulation technologies and adapt them to other aircraft throughout fiscal 2019. On January 23, 2019, the Company signed a \$1.0 million contract to build a vehicle crew gunnery simulator solution for Public Services and Procurement Canada under the Build in Canada Innovation Program. Subsequent to the quarter end, the Company announced that it received contracts to deliver its innovative Hoist Mission Training Systems to the US Air Force and to the Royal Canadian Airforce. On May 29, 2019, the Company announced plans to develop a V-22 Osprey Special Mission Aviator Ramp Trainer. The program is funded under the Innovation, Science and Economic Development Canada (ISED), Investment Framework Transaction program by Boeing. The program includes funding to Bluedrop, engineering support from Boeing and a three-year commitment to support the development and ongoing sales of the new product within the Boeing global supply chain. The company continues to develop and enhance its simulation products such as the RCMT and stand-alone hoist and gunnery trainers. The objective is to create a new class of rear crew complete mission trainers and rear crew task trainers adaptable across multiple platforms and markets. By combining emerging technologies with strong OEM partnerships and market access, the business unit is focused on achieving its business goals.

The Learning Networks business unit continues to build more capabilities and features into its *Bluedrop360™* platform as it invests heavily in research and development in the period. The development of this proprietary technology to ensure the end user value proposition is well demonstrated is a key strategic focus for the business unit. The new platform has been successfully implemented for an occupational health and safety compliance application in Canada where it now provides regulators, employers and employees a secure web-based tracking system for multiple users and multiple certification validations. Management of the Company is continuing to explore opportunities in the workplace compliance market through partnering with other stakeholders that will create a scalable, lower-cost option to sell the platform to new stakeholders, balancing large customer sales cycles. The platform also has been successfully deployed in a workforce skills enhancement program in the US with an objective of reducing delivery costs and improving outcomes for job seekers. During the second quarter of fiscal 2018, the Province of Newfoundland and Labrador entered into an agreement with Bluedrop Learning Networks to utilize this technology over a four-year term for a total value of \$5.0 million. On May 6, 2019 the Company announced a \$2.8 million contract to develop a managed digital service delivery channel solution for the Department of Labour and Advanced Education in Nova Scotia. Throughout fiscal 2019, the business unit will focus efforts on enhancing the functionality and features of the *Bluedrop360™* platform while continuing to pursue additional opportunities in the market.