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**MICROMEM TECHNOLOGIES INC.**  
**MANAGEMENT'S DISCUSSION AND ANALYSIS**  
**FOR THE FISCAL YEAR ENDED OCTOBER 31, 2017**  
**PREPARED AS OF MARCH 2, 2018**

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## **INTRODUCTION**

The following sets out the Management's Discussion and Analysis ("MD&A") of the financial position and result of operations for the fiscal year ending October 31, 2017 of Micromem Technologies Inc. (the "Company", "Micromem" or "we"). The MD&A should be read in conjunction with the Company's audited consolidated financial statements and accompanying notes for the fiscal years ending October 31, 2017 and 2016 which are prepared in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board. Additional information regarding the Company is available on the SEDAR website at [www.sedar.com](http://www.sedar.com).

The Company's shares are traded on the OTCQB under the symbol MMTIF and on the Canadian National Stock Exchange ("CNSX") under the symbol MRM. In November 2007, the Company incorporated Micromem Applied Sensor Technologies Inc. ("MAST") for the purpose of moving forward with the planned commercialization of its technology.

Certain information provided by the Company in this MD&A and in other documents publicly filed throughout the year that are not recitation of historical facts may constitute forward-looking statements. The words "may", "would", "could", "will", "likely", "estimate", "believe", "expect", "forecast" and similar expressions are intended to identify forward-looking statements.

Readers are cautioned that such statements are only predictions and the actual events or results may differ materially. In evaluating such forward-looking statements, readers should specifically consider the various factors that could cause actual events or results to differ materially from those indicated by such forward-looking statements.

## **FORWARD LOOKING STATEMENTS**

This MD&A contains forward-looking statements and forward looking information within the meaning of applicable Canadian securities legislation ("forward looking statements"). Any statements that express or involve discussions with respect to predictions, expectations, beliefs, plans, projections, objectives, assumptions, potentials, future events or performance (often, but not always, using words or phrases such as "believes", "expects" or "does not expect", "is expected", "anticipates" or "does not anticipate", or "intends" or stating that certain actions, events or results "may", "could", "would", "might" or "will" be taken or achieved) are not statements of historical fact, but are "forward-looking statements". Such forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause the actual results, performance or achievements of the Company, or developments in the Company's business or in its industry, to

differ materially from the anticipated results, performance, achievements or developments expressed or implied by such forward-looking statements. Forward-looking statements include disclosure regarding possible events, conditions or results of operations that are based on assumptions about future conditions, courses of action and consequences. Forward-looking statements may also include, without limitation, any statement relating to future events, conditions or circumstances. The Company cautions you not to place undue reliance upon any such forward-looking statements, which speak only as of the date they are made. Forward-looking statements relate to, among other things, the successful commercialization of our technology, comments about potential future revenues, joint development agreements and expectations of signed contracts with customers, etc. A number of inherent risks, uncertainties and factors affect the operations, performance and results of the Company and its business, and could cause actual results to differ materially from current expectations of estimated or anticipated events or results. Some of these risks and uncertainties include the risk of not securing required capital in future, the risks of not successfully concluding agreements with potential partners on a timely basis, the risks associated with commercializing and bringing to market our technology. These risks are affected by certain factors that are beyond the Company's control: the existence of present and possible future government regulation, competition that exists in the Company's business, uncertainty of revenues, markets and profitability, as well as those other factors discussed in this MD&A report. This list is not exhaustive of the factors that may affect any of the Company's forward-looking statements and reference should also be made to the Company's Annual Information Form (prepared and filed in the form of a Form 20-F Annual Report pursuant to The Securities Exchange Act of 1934) for a description of risk factors.

Although the Company has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking statements, there may be other factors that cause results not to be as anticipated, estimated or intended. There can be no assurance that such statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements. The Company does not undertake to update any forward-looking statements that are incorporated by reference herein, except in accordance with applicable securities law.

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## **1. OVERVIEW**

### **Introduction:**

Micromem is a company that develops customized, proprietary sensor-based solutions for large multinational corporations. It operates through its wholly owned subsidiary, Micromem Applied Sensor Technologies ("MAST"). MAST is responsible for the development of market opportunities, maintaining customer relationships and the project management of the independent engineering subcontractors that it engages once a client project has been initiated.

Micromem and MAST are referred to interchangeably as the Company throughout this report.

### **Overview of 2017 Fiscal Year:**

The Company encountered a number of challenges throughout fiscal 2017. The client driven projects that it has been engaged in have continued to develop, but progress towards ultimate commercialization of the Company's technology applications has been slower than anticipated. We provide additional commentary in Section 2 on the status of our current projects.

The Company's cashflow constraints, as also outlined in detail in this report, have also proved challenging.

### **Financing Overview:**

The Company was financed in 2017 by:

- a. Funding provided by its development partners; in 2017 Chevron provided additional funding of \$196,000 and Castrol contributed additional funding of \$100,000. A third entity, Repsol Inc., also funded \$75,000 of initial development activity.
- b. The primary sources of financing that the Company secured in 2017 was through:
  - i. Private placements of the Company shares with investors who committed approximately \$720,000 of investment capital.
  - ii. Continuation and expansion of the bridge loan financing program that the Company initiated beginning in the last quarter of fiscal 2015 and carried forward into fiscal 2016. On October 31, 2017, the Company reports a total of 30 such bridge loans that it has secured to-date; in 2017, it realized gross proceeds of \$1.788 million from bridge loans initiated during the year (2016: \$2.490 million). This financing is of a short-term nature and carries a high overall cost.

The Company negotiates with investors on conversion prices, interest rates and other terms. The investor will determine whether the funding is to be provided in \$USD or in \$CDN.

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The Company's debt service costs increased in 2017 with this higher cost of financing. In total, the Company incurred \$666,245 (2016: \$561,608; 2015: \$36,714) of interest expense on its outstanding debentures.

Under IFRS reporting, the Company is required to measure the value of derivatives when such financings are secured. These measurements are completed on a loan by loan basis and are re-measured quarterly to fair value.

By virtue of these re-measurements, the Company reports significant non-cash costs relating to these financings each quarter. These are measured as accretion expense on debt and a gain or loss on the underlying derivative liability associated with the financing. Over the term of any loan, these measurements generally offset – on an overall basis, the Company incurred non-cash accretion expense of \$1,358,101 in 2017 (2016: \$514,560; 2015: \$Nil); this was offset by a non-cash gain on the revaluation of derivatives of \$1,614,822 (2016: \$295,615; 2015: \$Nil).

During the term of the bridge loans, the Company worked with its investors, some of whom converted their loans into common shares at or close to the maturity date of the original loan. Other investors have agreed to extend their loans for additional periods beyond the initial maturity dates. In these cases, the Company typically provided inducement to the investors to convert their shares by agreeing to a lower conversion price, tied to the prevailing market prices at the time of conversion. These inducements resulted in additional costs to the Company upon conversion. In 2017, the Company reported a loss on conversion of \$1,009,680 (2016: \$Nil) representing the additional share consideration provided to the investors at conversion.

**Regulatory Overview:**

The Company encountered no issues with the Canadian and US regulators in 2017.

Our listing status with the OTC markets was moved to the OTCQB from the OTCQX in April 2017 as the Company's financial position is below the threshold required for the senior listing status. This change has not adversely impacted on the Company's ability to function as a publicly traded entity; additionally, there is a savings in the costs associated with this listing.

Given the lower market capitalization of the Company as of the annual measurement date of April 30, it was not required to file a Section 404 audit of its internal controls in 2017 fiscal year. The Company's 404 filings in the prior years were attested to by our auditors on an unqualified basis.

In November 2017, the Company elected to change audit firms and requested that the incumbent firm, Collins Barrow Toronto LLP, resign as the auditors. There were no disagreements or other issues that gave rise to the decision to change auditors. In December 2017, MNP LLP – a national firm with significant public company expertise – was appointed as our new auditors.

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**Board Activity Overview:**

At our 2016 Annual General Meeting held in July 2017, all of our incumbent directors successfully stood for re-election.

The Company's Audit Committee meets formally on a quarterly basis and informally as required during the course of the year. The Company's Compensation Committee also meets on a quarterly basis.

In response to concerns raised by certain investors and debenture holders, the independent directors of the board engaged in a mid-year review of the Company's business opportunities and an evaluation of the management team. The committee interacted with the Company's sub-contractors and with its end customers. This process was led by Larry Blue, a director who has served with the Company since 2005.

Ultimately, the Committee reported that, in its opinion, the Company's projects were viable and had potential for commercial success, subject to securing and maintaining adequate financing and to finalizing satisfactory commercial terms. The Committee also determined that, on balance, the incumbent management team provided the best option to realize these goals in the near and mid-term. At the conclusion of the work initiated by the independent directors, Larry Blue resigned as a director in September 2017.

**Relationship With Creditors:**

The Company has managed to remain current with its prime sub-contractors. Essentially, the Company will only commission work with these sub-contractors as and when it has a commitment from its end customer – Chevron or Castrol – to fund these go-forward activities.

The Company worked with its trade suppliers and, while it is in arrears with certain of these, its working relationships remain positive and constructive.

The senior management team of the Company provided certain financial support to the Company in 2017. This support included wage deferral, go forward wage reductions of approximately \$35,000 per month, investment in private placements and the provision of several bridge loans to the Company.

**Intellectual Property Overview:**

The Company continued to invest in its intellectual property portfolio. This has, in part, been financed by the President of MAST, who has the primary responsibility for the maintenance and expansion of the Company's intellectual property portfolio.

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**Business Development:**

In spite of the challenges that the Company faced in 2017, there were some notable areas of progress and these are summarized as follows:

- a. MAST released for routine sale, its RT-LUBE Analyzer, a sophisticated instrument platform capable of real time on-site detection of wear elements and lubricating fluids. The Company believes that there are market opportunities for sophisticated, accurate real time measurement utilizing this technology and has identified power transformers, wind turbines and shipping applications as potentially sizable markets. The technology applies as well to other industry sectors.
- b. In mid-2017, the Company announced a new business relationship with Repsol Inc., a large Spanish conglomerate. This followed approximately six months of negotiations as Repsol investigated the Company's technology applications. To-date, Repsol has provided \$75,000 for development work that the Company continues to pursue.
- c. Our joint development agreement with our oil and gas partner, as previously disclosed, continues. Over the past three years, we have been engaged with this partner to develop a first-in-the-world technology based on Micromem's patented product. The technology is intended to provide sophisticated real time monitoring and measurement of the quality and the sustainability of existing oil wells. The working arrangements with this customer have been transitioned from its Technology group to its Operations group who own and operate the oil wells.

This partner has invested approximately \$3 million to-date since 2013. We initially anticipated their further spending commitment of up to \$1 million by December 31, 2017. We continue to pursue this next round of funding and development work as the next step in commercialization plans for this technology.

- d. MAST has a worldwide exclusive license agreement with Entanglement Technologies Inc., a prime sub-contractor who holds patented technology for the oil and gas tracer detection field of use. The Company has announced the release of the AROMA tracer detection product, which will allow companies in different industry verticals to perform higher quality and more accurate samplings of production activity. MAST continues to respond to enquiries from potential customers and has made a number of presentations and proposals for new development opportunities.

**Go-Forward Plans in 2018:**

The Company must move towards a more stable and sustaining funding model in 2018. While it has demonstrated its ability to source additional capital for its requirements, and continued to do so in the period subsequent to fiscal yearend through the date of this report, the capital structure of the Company needs to be strengthened so as to continue operations and move forward.

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The Company's prospects for commercialization appear promising given the level of commitment to-date by its most significant development partner. Additionally, MAST is receiving widespread initial interest for the new products and technology that it is promoting currently. The key, in 2018, will be for the Company to commercialize these efforts; this goes hand and hand with, and is a requisite for, a better solution to the Company's financing needs.

**2. PROJECT UPDATES:**

A current update on the status of the projects which have previously been discussed and disclosed in our successive filings and press releases, is as follows:

**Castrol:**

In 2017 fiscal year, Castrol invested \$100,000 in support of our joint development initiative. This money was used to support the work done by our prime sub-contractor, SBM Inc.

We had ongoing discussion and dialogue with Castrol during fiscal 2017 about the expanded scope of the technical work to be completed and pursued discussions with Castrol about establishing, in our view, a more balanced cost sharing arrangement to further these development initiatives.

These matters have not as yet been resolved. The most recent interactions and discussions with Castrol have taken place over the past three months through mid-February 2018. In the meantime, our sub-contractor is paid on an up-to-date basis for work performed.

In the 2017 fiscal year, the Company was successful in developing a prototype "field" unit for infield testing. The Company's view is that this technology can be a standalone product for commercial exploitation in future. This could be a separate initiative distinct from the eventual development of an automotive application, which is referenced in our initial joint development agreement with Castrol. In order for this project to proceed, the Company will require additional financing and it intends to continue to pursue current discussions on cost sharing arrangements with Castrol. At this stage, the Company has invested approximately \$2.4 million of financing and Castrol has provided financing of approximately \$850,000.

**Chevron:**

In last year's annual MD&A documentation, we commented on timing delays encountered with respect to our Chevron development project, attributable to the prior year's slowdown in the North American energy sector.

Throughout 2017, MAST actively engaged with the Chevron team and, through our prime sub-contractor, Entanglement Technologies, have successfully moved forward with pre-commercialization testing protocol. In 2017, we received \$196,000 of funding from Chevron. We recently announced that we anticipated an additional funding of up to \$1 million and the expectation remains that this funding will be provided shortly.



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In the meantime, we are advised that our contract is being transitioned from their Technology group to the Operations group within Chevron, which we view as a pre-cursor to commercialization of the project.

**Repsol:**

We engaged with Repsol Inc., a Spanish conglomerate, in 2017. Repsol provided an initial \$75,000 of funding to support certain initial development work that SBM is engaged by the Company to complete.

The Company's ability to deploy additional resources at the moment is limited; however, the project remains active and viable.

**Flextronics:**

We have previously reported on the development work that we engaged with Flextronics on behalf of a large automotive manufacturer. That project was initiated in 2013 and a work plan was developed at that time.

The work plan called for the Company to invest approximately \$1.9 million of funding on a multi-staged development process over several years. That project was initiated and the Company has received partial invoices for work performed. At October 31, 2017, there remains an amount payable of approximately \$131,000 to Flextronics. The account has now aged and there has been no activity or new developments with Flextronics in 2017. The Company hopes to resume discussion in future, but, for the moment, does not have the resources to do so. In light of the passage of time there can be no assurance that Flextronics will move forward with this process.

The ongoing valuable asset that the Company has is its patented technology – a series of six patents relating to the oil pan plug, as previously announced. We believe that there is broad market opportunity in the automotive sector to exploit this technology in future.

**Other Opportunities:**

MAST has been active throughout 2017 in discussions with a number of other substantial companies, to whom it has submitted go-forward development project proposals.

The Company recently announced the launch of its AROMA product in conjunction with its sub-contractor, Entanglement Technologies; it is actively promoting this product to a number of parties who have expressed initial interest and with whom the Company will be meeting shortly.

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**3. DISCUSSION OF OPERATING RESULTS:**

*(a) Financial Position as at October 31, 2017:*

	October 31, 2017 ('\$000)	October 31, 2016 ('\$000)
Cash	9	288
Deposits and other receivables	466	33
	475	321
Property and equipment, net	10	11
Patents, net	431	404
	917	736
Bridge loans	2,489	3,637
Accounts payable and accrued liabilities	1,362	917
Derivative liability	490	84
	4,341	4,638
Shareholders' Equity		
Share capital:	80,198	75,855
Subscription received		-
Equity component of bridge loans	62	23
Contributed surplus	27,361	26,918
Deficit	(111,045)	(106,699)
	(3,424)	(3,902)
	917	736

**Commentary:**

1. The Company's working capital deficiency is (\$3,865,390) at October 31, 2017 (\$4,316,730 at October 31, 2016).
2. The Company capitalized \$161,647 of costs associated with patents in 2017 (2016 - \$192,873). These applications and filings relate to the ongoing product development work that the Company has undertaken. It has a portfolio of nine awarded patents in the United States and has filed for provisional patents in foreign countries.
3. The Company continued to secure additional financing in 2017 through convertible bridge loans. This program expanded significantly in 2017 such that at yearend it reports on 30 individual bridge loans secured from investors. Given the terms of the bridge loans, the Company has measured, as appropriate, the accounting treatments for these bridge loans and the related derivatives. Given that these loans were typically of a

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short-term nature and, in many cases, renewed on multiple occasions, the reporting treating became progressively more complex.

The balance reported as bridge loans at October 31, 2017 was \$2,489,017 (2016: \$3,637,008) and the related derivative liability balance was \$489,734 (2016: \$83,998). Related thereto, the Company reports accretion expense on these debentures of \$1,358,101 (2016: \$514,560), a loss on the conversion of bridge loans to share capital of \$1,009,680 (2016: nil) and a gain on the revaluation of the underlying derivative liabilities of \$1,614,822 (2016: \$295,616). Management employs a Black Scholes valuation model primarily, although for certain of the loan transactions contracted for in 2017, it used a binomial measurement model for those specific loans. Management acknowledges that:

- a. This is a high cost of financing for the Company. Interest on the bridge loans is substantial. In 2017 we reported \$666,245 of interest expense (2016: \$561,808).
- b. The accounting for these transactions creates complexities in the financial reporting process.
- c. The judgements utilized are based on specific assumptions which, if changed, would generate different results. The significant point to note is that the gain on the revaluation of derivative liabilities and the accretion expense recorded, are non-cash charges.

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In summary, during the 2017 and 2016 fiscal years, the Company completed the following financing:

	October 31, 2017	October 31, 2016
Private placements of shares for cash consideration and share subscriptions	\$ 719,403	\$ 110,000
Common stock options exercised for cash consideration	-	751,273
Settlement of trade accounts payable for share consideration	107,708	357,812
Bridge loan financing secured	1,788,974	2,490,333
Bridge loan settlement for share consideration	2,536,963	107,000
Project financing provided by development partners	296,000	643,901
	<b>\$ 5,449,048</b>	<b>\$ 4,460,319</b>

Subsequent to October 31, 2017 the Company raised an additional \$788,660 in convertible bridge loans (refer to Subsequent Events).

The loss on conversion of \$1,009,680 reported in 2017 (2016: nil) relates to the inducement of a lower conversion price (reflecting the market price of the date of conversion) that the Company provided to bridge loan investors who decided to convert their loans into common shares at or around the maturity date of the loans.

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**(b) Operating Results:**

The following table summarizes the Company's operating results for the years ended October 31, 2017 and 2016:

**Discussion of Operating Results**

	Years ended October 31,	
	2017 (\$000)	2016 (\$000)
Administration	305	395
Interest expense	666	562
Accretion expense	1,358	515
Professional fees and salaries	1,433	1,739
Stock-based compensation	442	-
Development costs, net	147	3,636
Travel and entertainment	118	181
Foreign exchange loss (gain)	343	(1)
Amortization of property and equipment	4	5
Amortization of patents	134	27
Amortization of sensor technology	-	5
Writedown of intangible assets	-	39
(Gain) Loss on conversion	1,010	-
(Gain) Loss on revaluation of derivatives	(1,615)	(296)
Total expenses	(4,346)	(6,806)
Net comprehensive income (loss)	(4,346)	(6,806)
Income (loss per share)	(0.02)	(0.03)

Commentary:

In addition to the commentary above regarding the impact of the bridge loans on the Company's operating results, we note the following:

- a. In general, the Company has curtailed operating expenses given tight cashflow constraints in 2017. Management introduced a number of cost cutting measures which took effect primarily in the third and fourth quarter of 2017.

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- b. The foreign exchange loss in 2017 of \$343,209 (2016: gain of \$1,478) includes a significant translation loss on the bridge loans which are re-measured at each quarter end. The loss on translation relating to the bridge loans in 2017 was approximately \$250,000 (2016: minimal).
- c. At the end of Q3 2016, the Company wrote down the deferred development cost that it had, to that date, reported as an asset. In 2017, all such costs were expensed as incurred.

In 2017, the Company recovered \$296,000 of development costs incurred from its development partners (in 2016, it recovered \$643,901 from development partners).

**1) Administrative related expenses compare as follows (\$000):**

	2017	2016
General and administrative	85	178
Rent and occupancy cost	73	72
Office insurance	54	60
Telephone	13	12
Investor relations, listing and filing fees	80	73
	305	395

**2) Professional and other fees and salaries compare as follows (\$000):**

	2017	2016
Professional fees	224	329
Consulting fees	814	1,028
Salaries and benefits	395	382
	1,433	1,739

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**3) Travel expenses compare as follows (\$000):**

	2017	2016
Airfare	48	66
Hotel	12	41
Other	59	74
	118	181

**C) Unaudited Quarterly Financial Information – Summary**

Three months ended (unaudited)	Revenues \$	Expenses \$	Loss in period \$	Loss per share \$
January 31, 2016	-	611,687	(611,687)	-
April 30, 2016	-	750,938	(750,938)	-
July 31, 2016	-	4,610,433	(4,610,433)	(0.02)
October 31, 2016	-	832,477	(832,477)	-
January 31, 2017	-	2,431,952	(2,431,952)	(0.01)
April 30, 2017	-	(124,532)	124,532	-
July 31, 2017	-	400,281	(400,281)	-
October 31, 2017	-	1,638,499	(1,638,499)	(0.01)

Three months ended (unaudited)	(1) Working capital (deficiency) \$	Capital assets at NBV \$	Other Assets \$	Total Assets \$	Long term liability \$	Shareholders equity (deficit) \$
January 31, 2016	(3,009,777)	14,423	3,784,410	4,163,419	-	789,056
April 30, 2016	(3,871,447)	13,633	4,039,206	4,187,484	-	181,392
July 31, 2016	(3,776,451)	12,306	448,367	796,754	-	(3,315,778)
October 31, 2016	(4,232,732)	10,988	403,600	736,043	-	(3,902,142)
January 31, 2017	(4,583,257)	13,732	389,412	524,937	-	(5,995,385)
April 30, 2017	(5,355,571)	12,672	410,178	501,472	-	(5,457,278)
July 31, 2017	(5,743,486)	10,769	414,525	515,663	-	(5,357,580)
October 31, 2017	(3,375,656)	9,822	431,462	916,643	-	(3,424,106)

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Management and the Board of Directors, primarily through the Audit Committee, have been active in developing and maintaining appropriate policies and procedures with respect to our internal control systems. The Company has very limited staff and the volume of periodic reporting that is required as a dual listed public company is substantial. Given this, the Company has encountered some issues in terms of timely completion of its regulatory reporting.

Management has concluded that our disclosure controls and procedures meet required standards. These procedures are designed to provide reasonable assurance that information that is required to be disclosed is recorded, processed and summarized; however, there can be no assurance that all such procedures are fully effective.

#### **4. RISKS AND UNCERTAINTIES**

There are a number of risks which may individually or in the aggregate affect the long-term commercial success of the Company, both known and unknown. An investment in the Company should be considered speculative due to the nature of the Company's activities and its current stage of development.

##### *Stage of Development of Technology:*

The Company has made strides in advancing its technology and in developing a product portfolio and in engaging customers in joint development projects. There remains the risk that the Company must successfully complete development work on these products to have available commercially viable products which can be licensed or sold.

##### *Customers' Willingness to Purchase:*

We have entered into multiple joint development agreements whereby our prototype products are being subjected to rigorous testing by our partners. We expect to be successful in completing remaining development work on our product portfolio. If we are successful in doing so, our partners will then have to decide the extent to which they will adopt our technology for future use for their applications. The future revenue streams for the Company are dependent upon the rate of adoption by our customers and their willingness to do so.

##### *Patent Portfolio:*

The Company has spent a considerable amount of time and effort and incurred significant costs with respect to the maintenance and development of our intellectual property portfolio. However, given the nature of IP development, the Company is subject to continuing risks that our patents could be successfully challenged and that our patent pending files may not ultimately be granted full patent status. While we continue to make specific efforts to broaden our IP claims, this is an ongoing process and requires continued effort and vigilance. The Company does not have



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extensive in-house resources so as to manage its IP portfolio in this environment and has traditionally relied heavily on its patent attorneys for these services.

*Financing:*

The Company has successfully raised funding over the past several years to continue to support its development initiatives and fund the Company's corporate structure and overheads. The Company must continue to source financing in order to continue to support its business initiatives.

*Competitors:*

The Company is subject to competition from other entities that may have greater financial resources and more in-house technical expertise.

*Management Structure:*

The Company is highly dependent on the services of a small number of senior management team members. If one of these individuals were unavailable, the Company could encounter a difficult transition process.

*Foreign Currency Exposure:*

The Company expects to sell its products and license technologies in the United States, in Canada and abroad. It raised financing in both \$CDN and \$USD. The Company has not hedged its foreign currency exposure. In future, foreign currency fluctuations could present a risk to the business. Loss on foreign exchange was a significant cost in 2017.

**5. GOING CONCERN**

The consolidated financial statements have been prepared on the "going concern" basis, which presumes that the Company will be able to realize its assets and discharge its liabilities in the normal course of business for the foreseeable future.

There are material uncertainties related to conditions and events that cast significant doubt about the Company's ability to continue as a going concern for a reasonable period of time in future. During the year ended October 31, 2017 the Company reported a net loss and comprehensive loss of \$4,346,200 (2016 - \$6,805,535; 2015 - \$6,516,610) and negative cash flow from operations of \$2,721,497 (2016 - \$2,889,025; 2015 - \$1,640,400). The Company's working capital deficiency as at October 31, 2017 is \$3,865,390 (2016 - \$4,316,730).

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The Company's future success depends on the profitable commercialization of its proprietary magnetic sensor technology. There is no assurance that the Company will be successful in the profitable commercialization of its technology. Based upon its current operating and financial plans, management of the Company believes that it will have sufficient access to financial resources to fund the Company's planned operations through fiscal 2017 and beyond; however, the ability of the Company to continue as a going concern is dependent on its ability to secure additional financing and/or to profitably commercialize its technology. The financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classifications of liabilities that may result from the possible inability of the Company to continue as a going concern.

If the "going concern" assumption were not appropriate for these consolidated financial statements then adjustments would be necessary to the carrying value of assets and liabilities, the reported expenses and the balance sheet classifications used; in such cases, these adjustments would be material.

## **6. OTHER MATTERS**

### **(a) Critical Accounting Policies:**

The accounting policies the Company believes are critical to the financial reporting process include foreign currency translation, financial instruments, compound and hybrid financial instruments, derivative liabilities, conversion features of bridge loans, patents, impairment of long-term assets, deferred development costs, stock-based compensation and income taxes. These critical accounting policies are set forth in Note 4 to our consolidated financial statements as of October 31, 2017.

### **(b) Commitments and Contingencies:**

#### *a) Commitments:*

The Company has extended its lease for premises through July 2022. The lease term is for 5 years and stipulates base monthly rental expenses of \$4,005 CDN. Lease commitments are as follows – commitments less than one year of \$48,060 CDN, years 2-5: \$180,225 CDN,

The Company has certain outstanding commitments to 3<sup>rd</sup> party subcontractors with respect to development projects. These commitments are as follows – commitments less than one year of \$760,001; commitments between years 2-5 total of \$1,475,334. Included in these amounts are \$130,752 reported as accounts payable at October 31, 2017. The balance of these commitments will become obligations as and when this work is commissioned by the Company.

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**(b) Commitments and Contingencies:**

*b) Legal Matters and Contingencies:*

On June 30, 2016 the lawsuit that was initiated in 2014 between the Company (or "Plaintiff") and Dreifus Associates Limited and Henry Dreifus ("Defendants") was settled through arbitration. Under the terms of settlement:

- i) The Company made a series of payments between July 29, 2016 and October 29, 2016 totaling \$50,000 and issued 312,500 common shares with a value of \$62,500 to the Defendants.
- ii) The Defendants dropped their counterclaims of approximately \$270,000 of disputed charges for services allegedly rendered. The Defendants also dropped all previously alleged claims of inventorship status on the Company's patents and assigned to the Company any and all of their future entitlements to the Company.

The Company has agreed to indemnify its directors and officers and certain of its employees in accordance with the Company's by-laws. The Company maintains insurance policies that may provide coverage against certain claims.

In addition to the above, the Company may be subject to litigation, claims and governmental and regulatory proceedings arising in the ordinary course of business. In such cases, the Company accrues a loss contingency for these matters when it is probable that a loss has been incurred and the amount of the loss can be reasonably estimated.

**(c) Off-Balance Sheet Arrangements:**

At October 31, 2017, the Company has no off-balance sheet financial commitments and does not anticipate entering into any contracts of such nature other than the addition of new operating leases for equipment and premises as may be required in the normal course of business.

**(d) Share Capital**

At October 31, 2017 the Company reports 228,562,711 common shares outstanding (2016: 204,388,569). Additionally, the Company has 6,595,000 stock options outstanding with a weighted average exercise price of \$.037 per share (2016: 4,395,000 options outstanding with a weighted average exercise price of \$0.45 per share)

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**(e) Management and Board of Directors**

At our Annual Meeting of Shareholders held on July 21, 2017, Joseph Fuda, David Sharpless, Steven Van Fleet, Oliver Nepomuceno, Larry Blue, Alex Dey, and Brian Von Herzen were re-elected to serve on our Board of Directors. Joseph Fuda, Dan Amadori and Steven Van Fleet continue to serve as officers of the Company. Larry Blue resigned as a director in September 2017.

Our management team and directors, along with their 2017 remuneration is presented as below:

		2017 remuneration		
		Cash	Options	Total
<b>Individual</b>	<b>Position</b>			
Joseph Fuda	President, Director	319,429	99,458	418,887
Steven Van Fleet	President, MAST Inc., Director	233,694	99,458	333,152
David Sharpless	Director	-	22,952	22,952
Oliver Nepomuceno	Director	-	22,952	22,952
Larry Blue	Director	-	7,651	7,651
Alex Dey	Director	-	30,602	30,602
Brian Von Herzen	Director	-	-	-
Dan Amadori	CFO	114,601	99,458	214,059

**(f) Transactions with Related Parties**

The Company reports the following related party transactions:

- (a) Chairman: The Chairman's term expired on April 26, 2016; his compensation for services rendered extended until October 31, 2016 and was then terminated. The total compensation paid to the Chairman during the year ended October 31, 2016 was \$113,266 of cash compensation (2015 - \$119,707 of cash compensation and \$64,271 of stock based compensation; 2014 - \$137,172 of cash compensation).

The Company provided short term non-interest bearing advances of \$198,673 to the Chairman during 2015 and the Chairman made repayments totaling \$236,757 to leave no outstanding advances receivable as at October 31, 2015.

In 2016 the Chairman exercised 700,000 stock options and the Company realized proceeds of \$140,000.

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(b) Management and consulting fees:

Included in professional fees, other fees and salaries as reported are management fees and consulting fees paid or payable to individuals (or companies controlled by such individuals) who served as officers, directors and employees of the Company. The total compensation paid to such parties is summarized as:

	2017	2016	2015
Cash compensation	\$ 667,724	\$ 845,510	\$ 936,199
Reclassified to deferred development cost:	-	(4,869)	(122,804)
	667,724	840,641	813,395
Share compensation	-	-	220,500
Stock based compensation	382,531	-	524,583
	\$ 1,050,255	\$ 840,641	\$ 1,558,478

In 2017, these parties were awarded a total of 1,950,000 options at an exercise price of of \$0.25 (2016: nil options; 2015: 975,000 options at an average exercise price of \$0.49 per share and 412,500 options at an exercise price of \$0.46.).

In 2017, officers, directors and a senior employee exercised nil options. (In 2016, officers, directors and a senior employee exercised 3,056,366 options resulting in proceeds to the Company of \$611,273).

In 2015, 450,000 common shares were issued to three directors as compensation for services provided, these common shares were valued at \$220,500.

(c) Related party deferred development cost:

In 2015, the Company was invoiced \$1,049,524 (2014: \$1,843,643) by a company whose major shareholder is a director of the Company and who also serves as its Chief Technology Officer. Since 2015, no invoices were submitted to the Company by this party.

As at October 31, 2017 the Company includes \$167,000 in accounts payable and accrued liabilities owing to this company (2016: \$167,000; 2015 \$227,215).

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(d) Advances:

In 2015 the following advances were provided to officers, directors and employees of the Company:

- (1) The CEO was provided short term non-interest bearing advances of \$550,972 during the year and made repayments totaling \$542,615 and the remaining \$8,357 was settled through the allocation of compensation due to the CEO. There were no advances receivable from the CEO as at October 31, 2015.
- (2) The President of MAST met performance targets in February 2015 settling his advances receivable of \$244,074 from 2014; the advance receivable was converted to compensation at that time. There were no advances to the President of MAST during 2015 or 2016.
- (3) A senior employee was provided short term non-interest bearing advances of \$166,366 during the year and made repayments totaling \$247,252 resulting in no outstanding advances receivable as at October 31, 2015.

In 2016, the CEO was provided short term non-interest bearing advances \$42,144 between November 1, 2015 and January 31, 2016. These advances were settled at January 31, 2016 through the allocation of compensation due to the CEO.

In all cases the advances were provided as advances against expenses incurred or compensation due to these individuals.

(e) Accounts payable:

At October 31, 2017 the Company reports in accounts payable and accrued liabilities a balance owing to the President of MAST of \$120,332 which amount represents outstanding expense reports and a short term non-interest bearing advance provided to the Company.

(f) Bridge loan:

The CEO of the Company provided a bridge loan of \$100,000 CDN on September 2, 2016. This amount was converted to common shares in July 2017. Additionally, he provided a non-interest bearing unsecured advance of \$11,690 in October 2017.

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**(g) Liquidity and Capital Resources:**

*Liquidity:*

We currently report negative cash flow from operations. This result will only change once we are generating sufficient revenue from either license fees, royalties or the sale of products utilizing our technology. In 2017 and subsequent to the end of the fiscal year, the Company continued to raise additional financing.

We currently have no lines of credit in place. We must continue to obtain financing from investors or from clients in support of our development projects.

We have granted to our directors, officers and employees options to purchase shares at prices that are at or above market price on the date of grant. At October 31, 2017 there are 6,595,000 million options outstanding at an average exercise price of \$0.37 per share.

*Capital Resources:*

We have no commitments for capital expenditures as of October 31, 2017.

**7. SUBSEQUENT EVENTS**

The Company reports the following subsequent events and developments between November 1, 2017 and March 2, 2018:

1. It secured several new debentures as follows:
  - a. A CDN\$160,000 bridge loan on December 19, 2017 with a maturity date of June 19, 2018, convertible at CDN\$0.14
  - b. A CDN\$150,000 bridge loan on January 2, 2018 with a maturity date of July 2, 2018 convertible at CDN\$0.14. These funds were invested by the President of Micromem.
  - c. Two bridge loans totaling \$178,800 from a US based lender, each loan with a one year term. These loans have a conversion feature that becomes effective six months after the initiation date.
  - d. A \$153,000 bridge loan from a US investor on December 5, 2017 with a one year term. This loan has a conversion feature which becomes effective six months after initiation date.

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2. It repaid or converted the following bridge loans which are disclosed in Note 14:
  - a. Canadian loan 10 on December 21, 2017
  - b. Canadian loans 11 and 12 on January 5, 2018
  - c. Canadian loan 14 on January 19, 2018
  - d. It converted \$75,000 of principal relating to US loan 7 on January 23, 2018
  - e. It converted USD loan 6 into common shares on January 23, 2018
  
3. The following Canadian denominated bridge loans, which are disclosed in Note 14, were extended; in each case certain of the terms of the loan were renegotiated:
  - a. Loan 2 was extended to May 2, 2018
  - b. Loan 13 was extended to May 11, 2018
  - c. Loans 15, 16 and 17 were all extended to May 11, 2018
  - d. Loans 18 and 19 were extended to June 5, 2018
  
4. The following USD denominated bridge loans, which are disclosed in Note 14, were extended; in each case certain of the terms were renegotiated:
  - a. Loan 1 was extended to May 2, 2018
  - b. Loan 5 was extended to May 25, 2018
  - c. Loan 2 and 3 were extended to June 2, 2018
  
5. The Company completed five \$CDN private placements with arms' length investors in January 2018 and realized total proceeds of \$261,000 CDN and issued a total of 2,372,728 shares.
  
6. 440,000 common stock options, which were exercisable at \$0.30 per share, expired unexercised on January 22, 2018.

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