

# MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS FOR THE YEAR ENDED AUGUST 31, 2017

The following comments are intended to provide a review and analysis of the results of operations, financial condition and cash flows of Opsens Inc. for the fourth quarter and year ended August 31, 2017 in comparison with the corresponding periods ended August 31, 2016. In this Management's Discussion and Analysis ("MD&A"), "Opsens", "the Company", "we", "us" and "our" mean Opsens Inc. and its subsidiary. This discussion should be read and interpreted in conjunction with the information contained in our annual consolidated financial statements for the years ended August 31, 2017 and 2016, which have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board. This document was prepared on November 14, 2017. All amounts are in Canadian dollars unless otherwise indicated.

This MD&A contains forward-looking statements with respect to the Company. These forward-looking statements, by their nature, require the Company to make certain assumptions and necessarily involve known and unknown risks and uncertainties that could cause actual results to differ materially from those expressed or implied in these forward-looking statements. Forward-looking statements are not guarantees of performance. These forward-looking statements, including financial outlooks, may involve, but are not limited to, comments with respect to the Company's business or financial objectives, its strategies or future actions, its targets, expectations for financial condition or outlook for operations and future contingent payments. Words such as "may", "will", "would", "could", "expect", "believe", "plan", "anticipate", "intend", "estimate", "continue", or the negative or comparable terminology, as well as terms usually used in the future and conditional, are intended to identify forward-looking statements.

Information contained in forward-looking statements is based upon certain material assumptions that were applied in drawing a conclusion or making a forecast or projection, including management's perceptions of historical trends, current conditions and expected future developments, as well as other considerations that are believed to be appropriate in the circumstances. The Company considers these assumptions to be reasonable based on information currently available to it, but cautions the reader that these assumptions regarding future events, many of which are beyond its control, may ultimately prove to be incorrect since they are subject to risks and uncertainties that affect the Company and its business. The forward-looking information set forth therein reflects the Company's expectations as of November 14, 2017 and is subject to change after such date. The Company disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, other than as required by law.

#### **OVERVIEW**

Opsens focuses mainly on the measure of Fractional Flow Reserve ("FFR") in interventional cardiology. Opsens offers an advanced optical-based pressure guidewire (OptoWire) that aims at improving the clinical outcome of patients with coronary artery disease. Opsens is also involved in industrial activities through its wholly-owned subsidiary Opsens Solutions Inc. ("Solutions"). Solutions develops, manufactures and installs innovative fibre optic sensing solutions for critical applications such as the monitoring of oil wells and other demanding industrial applications.

**In the interventional cardiology field,** during fiscal 2015, Opsens initiated a limited market release of its OptoWire and OptoMonitor. OptoWire provides cardiologists with a guidewire that offers optimal performance to navigate in coronary arteries and cross blockages with ease, while measuring intracoronary blood pressure. This procedure is called measurement of FFR. According to management and industry sources<sup>(1)</sup>, the FFR market is estimated at approximately US\$450 million in 2017 and should exceed US\$1 billion annually in the medium term.

During fiscal 2015, Opsens received approval to commercialize the OptoWire I and OptoMonitor in the U.S., Europe, Japan and Canada. These combined markets represent approximately 85% of the total market worldwide for FFR products.



On March 16, 2016, Opsens announced receipt of the 510(k) clearance from the U.S. Food and Drug Administration (FDA) for the OptoWire II. This major regulatory milestone allows the Company to commercialize its optical guidewire in the U.S., the largest market in the world for these types of products and expanded regulatory clearance for the OptoWire II to the U.S. from previous clearances in Europe and Japan. On June 22, 2016, the Company announced the receipt of Health Canada's approval to sell the OptoWire II in Canada.

The OptoWire continues to draw positive comments from cardiology experts around the world. An article published in August 2016 from the «Circulation Journal» highlighted the performance of the OptoWire. More specifically, the article highlighted the fact that traditional FFR guidewires showed measurement drift, despite major efforts to minimize it. The occurrence of drift is a significant problem that can occur and often goes unnoticed before the wire is removed from the patient. If drift is present, it may invalidate the measurement. The authors stated they used approximately 100 OptoWire in the past year and they have not observed any drift in any of the OptoWire up to now.

Subsequent to approvals received to commercialize the OptoWire II, the number of orders have increased. In addition, many account conversions in Canada, in Europe and in Japan have materialized recently. Opsens also began its limited market release in the U.S. These recent developments enable Opsens to compete in the growing FFR market.

In Canada, Opsens has been executing its market release with its direct sales force following the successful completion of a clinical registry involving 60 patients. The objective of the registry was to evaluate the ease of use, functionality and security of Opsens' OptoWire and OptoMonitor in patients with ischemic coronary artery disease who were referred for diagnostic angiography.

Opsens continued to expand its sales channels during the year ended August 31, 2017. Opsens is currently present, with its sales channels in the U.S., in more than 30 countries in Europe, in Middle East, in Canada and in Japan. To support revenue growth with increased production capacity, Opsens moved its medical devices business into a new location in Quebec City (Canada).

In March 2017, the Appropriate Use Criteria ("AUC") for stable ischemic heart disease was updated to emphasize FFR's growing use and importance. The intent of AUC is to provide a framework to evaluate overall clinical practice patterns and improve quality of care. The conclusions of the updated AUC is that there is a significant increase in the recognition of the role and value of FFR in classification, which should be helpful for the usage of FFR. Payers, including Medicare, have used the AUC's to help formulate their criteria of reimbursement.

The OptoWire' performance was highlighted in several occasions throughout the year and more recently in *Cardiovascular Intervention and Therapeutics*. According to the results obtained with 90 OptoWire units, it may be reasonable to use Opsens' guidewire as a workhorse-type guidewire in percutaneous coronary interventions.

In the industrial sector, Opsens' technology, expertise and products can serve several markets including aerospace, geotechnical, infrastructures, oil and gas, mining, laboratories and others. For example, for the monitoring of the integrity of structures ("SHM" for Structural Health Monitoring), qualitative and non-continuous methods have long been used to assess the structures and their ability to perform their function. In the past 10 to 15 years, SHM technologies have emerged, creating new exciting fields within the different branches of engineering. SHM is widely applied to various types of infrastructures and represents solid growth opportunities considering that many countries are entering periods of pent up demand for the construction of various infrastructures ranging from bridges to skyscrapers.

As for the oil and gas market, Opsens, through a distributor, provides fiber optic sensor systems that provide reliable real-time pressure and temperature measurements at the bottom of the wells. This information is critical during operations such as Steam Assisted Gravity Drainage ("SAGD"), a process that recovers bitumen from oil sands.

Opsens' broad portfolio of products and technologies can be adapted to measure various parameters in the most harsh conditions and provide significant advantages in terms of production optimization and reduced risk to the environment and health.

Opsens holds 10 patents and 3 pending patents to protect its medical and industrial businesses.



## FFR MARKET OPPORTUNITY

For the FFR market, Opsens has developed the OptoWire and OptoMonitor, instruments that assess the significance of arterial narrowing (stenosis) resulting from coronary heart disease. Coronary artery disease is a leading cause of death in the developed world and the cost related to the management and treatment of this disease is a significant burden to society. In recent years, the prevalence of coronary heart disease has increased at a rapid pace. According to the American Heart Association ("AHA"), the number of Americans who undergo surgery or cardiovascular operations or procedures has increased to about 7.6 million patients in 2010. Based on health data compiled from over 190 countries, heart disease remains the No. 1 global cause of death with 17.3 million deaths annually based on a report from the AHA "Heart Disease and Stroke Statistics – 2015 Update". That number is expected to rise to more than 23.6 million by 2030.

The benefits of FFR were demonstrated in various clinical studies such as FAME I and FAME II published respectively in 2009 and 2012 in the New England Journal of Medicine. The FAME I study showed that FFR-guided treatment rather than standard angiography alone led to a reduction in mortality, myocardial infarction, readmission for percutaneous coronary intervention and coronary bypass by about 30% after a year. In 2011, the American College of Cardiology Foundation and the AHA established a class IIA recommendation for the use of FFR during angiography, meaning that the proposed procedure or treatment is beneficial, useful and effective. These developments have contributed to the growth of the market. According to management and industry sources' estimates, the global FFR market reaches approximately US\$450 million in 2017 and should exceed US\$1 billion annually in the medium term.

## INDUSTRIAL MARKET OPPORTUNITY

**Structural Health Monitoring market**: the opportunities in this market are related principally to strain, load and displacement measurements. The applications are found in geotechnical, civil engineering, energy, aerospace and O&G sectors. New industrial versions of the strain sensor like the optical foil gauge and the CoreSens system are the main flagship products for these applications.

**Pressure Monitoring Solution market**: the opportunities in this market are principally related to absolute and differential pressure measurements. The measure of the pressure is found in many industrial applications of the energy, geotechnical, oil and gas and aerospace sectors. New industrial versions of the pressure sensor and the recent addition of a differential pressure sensor are the main flagship products for these applications.

**Traditional Niche Applications market**: include niche applications in which Opsens is currently involved like the electro explosive device (EED) application. It also includes applications such as SAGD in Western Canada and laboratories applications (special projects and custom products).



## **BUSINESS STRATEGY**

Opsens' growth strategy is to become a key player in the interventional cardiology market by focusing on the FFR procedure where its products and technologies have competitive advantages. The Company also aims to capitalize on its technologies and products in industrial markets.

## The Company's FFR growth strategy will be executed by:

- <u>Gaining market shares in the fast-growing FFR market</u>. In fiscal 2015, for the first time, Opsens has generated revenues from its FFR offering in the limited market release phase. In the last two years, Opsens expanded its sales activities in several markets, which translated in solid revenue growth. Management believes that FFR is used in over 15% of PCI, but industry analysts suggest that up to 45% of PCI could advantageously be combined with FFR<sup>(2)</sup>. Management is pursuing a comprehensive market development strategy that highlights the features and distinctive capabilities of the OptoWire and exceed marketing requirements to gain market share from competitors and contribute to the expansion of the FFR market. Initially, marketing efforts are focused on the Japanese, U.S., European and Canadian markets.
- <u>Investing in innovation to enhance the existing applications of the Company's technology</u>. The Company's commitment to innovation has been a major driving force behind its success. Opsens is constantly working to improve its intellectual property portfolio and customer value proposition. In the FFR market, OptoWire is designed to provide:
  - o Improved mechanical performance from key design attributes and product specifications such as torquability and steerability;
  - o Improved measurement reliability and fidelity from OptoWire's no drift<sup>(3)</sup> sensing technology, which is essential to the decision-making process of cardiologists; competing FFR sensing technologies have higher drift levels;
  - Improved connectivity, as OptoWire's connection and measurement accuracy is unaffected by blood contamination and the guidewire can be reconnected easily without compromising measurement accuracy.
- <u>Developing new applications for the Company's medical technology</u>. Opsens plans to leverage its technologies and knowledge in the medical devices field to expand into new markets and increase clinical applications. As the Company pursues opportunities in these new markets, it plans to develop new FFR or other measurement methods products and explore product development and marketing partnerships with other leading companies in the sector.
- Expanding and investing in FFR-focused sales force and distribution channels.
  - O **Distribution agreements:** Opsens has signed distribution agreements in more than thirty countries in Europe and Asia. These agreements enable Opsens to expand its market penetration worldwide. Although the distribution agreements in place cover the most important potential markets.
  - o Sales force: Opsens plans on expanding its sales force through hiring additional sales personnel for FFR product commercialization. Sales force expansion will aim to increase Opsens' marketing and sales market penetration in the United States and in Canada.

D. STARKS, "St Jude Medical 2013 Investor Conference" p.105 (2013-02-01); R. Scott Huennekens, "Volcano NASDAQ Analyst Day" POWERPOINT PRESENTATION p.44 (2013-03-07)

<sup>(3)</sup> Per 60601-2-34 ed3



## The Company's growth strategy in the Industrial sector will be achieved by:

• Investing in innovation to enhance applications for the Company's technologies. The Company's industrial line of fiber optic sensors offers unique advantages over traditional sensors in many industries. For example, traditional sensors need to be shielded and grounded for their safe operation in aircrafts and spaceships. The use of composite materials in the newly developed versions of these flying structures have seriously reduced the natural shielding and grounding capacity provided by the older metallic version of these structures. The Company's fiber optic strain and pressure sensors received attention from major players in the aerospace industry because they do not require any shielding or grounding and also because of their ease of deployment.

#### NON-IFRS FINANCIAL MEASURE - EBITDACO

The Company quarterly reviews net loss and Earnings Before Interest, Taxes, Depreciation, Amortization, Change in fair value of embedded derivative and Stock-based compensation costs ("EBITDACO"). EBITDACO has no normalized sense prescribed by IFRS. It is not very probable that this measure is comparable with measures of the same type presented by other issuers. EBITDACO is defined by the Company as the addition of net loss, financial expenses, depreciation and amortization, change in fair value of embedded derivative and stock-based compensation costs. The Company uses EBITDACO for the purposes of evaluating its historical and prospective financial performance. This measure also helps the Company to plan and forecast for future periods as well as to make operational and strategic decisions. The Company believes that providing this information to investors, in addition to IFRS measures, allows them to see the Company's results through the eyes of management, and to better understand its historical and future financial performance.

## Reconciliation of EBITDACO to net loss

(In thousands of Canadian dollars)	Year Ended	Year Ended	Year Ended
	August 31, 2017	August 31, 2016	August 31, 2015
	\$	\$	\$
			_
Net loss	(6,537)	(9,282)	(2,884)
Current income tax expense	-	-	340
Financial expenses (revenues)	(7)	57	(1)
Depreciation of property, plant and equipment	699	549	385
Amortization of intangible assets	90	73	62
Change in fair value of embedded derivative	164	732	73
Impairment of assets		-	796
EBITDAC	(5,591)	(7,871)	(1,229)
Stock-based compensation costs	864	451	317
EBITDACO	(4,727)	(7,420)	(912)

The positive variance of EBITDACO for fiscal 2017 when compared with last year is explained by increase revenues in the medical sector and by licensing revenue of \$1,007,750 (US\$750,000) for a technical milestone payment related to Abiomed agreement. This was partly offset by lower sales in the industrial sector and by higher sales and marketing and research and development expenses as explained further below. Also, allowance for doubtful account recorded in the industrial sector negatively impacted EBITDACO.



## SELECTED CONSOLIDATED FINANCIAL DATA

(In thousands of Canadian dollars, except for information per share)	Year Ended	Year Ended	Year Ended August 31, 2015
information per share)			
	\$	\$	\$
Revenues			
Sales	16,378	9,234	4,841
Distribution rights	-	-	3,458
Licensing	1,374	367	366
	17,752	9,601	8,665
Cost of sales	10,252	7,970	3,921
Gross margin	7,500	1,631	4,744
Gross margin percentage	42%	17%	55%
Expenses (incomes)			
Administrative expenses	3,774	3,685	2,616
Sales and marketing expenses	6,975	3,694	1,501
R&D expenses	3,131	2,744	2,303
Financial expenses (revenues)	(7)	57	(1)
Change in fair value of embedded derivative	164	733	73
Impairment of assets	-	-	796
	14,037	10,913	7,288
Loss before income taxes	(6,537)	(9,282)	(2,544)
Current income tax expense	-	-	340
Net loss and comprehensive loss	(6,537)	(9,282)	(2,884)
Net loss per share - Basic and diluted	(0.08)	(0.14)	(0.05)

#### Revenues

The Company reported revenues of \$17,752,000 for the year ended August 31, 2017 compared with revenues of \$9,601,000 for the comparative period in 2016, an increase of \$8,151,000 or 85%.

Revenues in the medical sector totalled \$16,269,000 for the year ended August 31, 2017 compared with revenues of \$6,429,000 for the same period in 2016. The increase in medical sector revenues is explained by a higher number of OptoWire shipped when compared to the same period last year. FFR revenues totalled \$12,351,000 for the year ended August 31, 2017, an increase of \$7,109,000 over the \$5,242,000 reported for the same period last year. The increase in revenues in the medical sector is also explained by higher other medical revenues of \$1,723,000 mainly related by Abiomed agreement. The increase in revenues in the medical sector is also explained by the recognition of non-recurring revenues of \$1,007,750 (US\$750,000) for the achievement of a technical milestone of the Abiomed agreement.

Revenues in the industrial sector totalled \$1,483,000 for the year ended August 31, 2017 compared with revenues of \$3,172,000 for the same period in 2016. This decrease is mostly explained by lower revenues related to the oil and gas product line.

Market acceptance of FFR and of industrial fiber optic sensors is increasing in the Company's potential markets. However, some industries, such as oil and gas, are experiencing challenging economic conditions. On September 22, 2016, the Company announced a partnership with Precise Downhole Services Ltd. ("Precise") for the commercialization of its product line dedicated to the Canadian oil and gas market. As part of the agreement, Opsens appointed Precise as exclusive distributors for the OPP-W sensor product line in the Canadian territory.



For the year ended August 31, 2017 and August 31, 2016, pricing fluctuations did not have a significant impact on revenues.

Given that a proportion of the Company's revenues is generated in U.S. dollars, Euros and British Pounds, fluctuations in the exchange rate affect revenues and net loss. For the year ended August 31, 2017, sales were negatively affected by \$143,000.

As of August 31, 2017, Opsens' total backlog of orders amounted to \$5,608,000 (\$1,295,000 as at August 31, 2016). Significant efforts are being made to increase the backlog and expand the customer base. In addition, the Company will benefit from increase revenues in the medical sector.

## Gross margin

Information and analysis in this section do not take into consideration licensing revenues arising from the Abiomed agreement (\$1,374,000 for the year ended August 31, 2017 and 367,000 for the year ended 2016, respectively).

Gross margin was \$6,126,000 for the year ended August 31, 2017 compared with \$1,263,000 for the same period last year. The gross margin percentage increased from 14% for the year ended August 31, 2016 to 37% for the year ended August 31, 2017. The increase in gross margin is mainly explained by higher revenues from our FFR and other medical products line as explained previously. The increase in gross margin percentage reflects higher sales volume and the related benefits of scale combined with enhanced productivity. This was partly offset by the recognition of an allowance for obsolete inventory of \$157,000.

## Administrative expenses

Administrative expenses were \$3,774,000 and \$3,685,000, respectively, for the year ended August 31, 2017 and 2016. The increase is mainly explained by higher professional fees related to the graduation of the Company on the TSX. This was partly offset by lower rental fees because last year the Company had to assume two rental facilities for its medical activities.

#### Sales and marketing expenses

Sales and marketing expenses totalled \$6,975,000 for the year ended August 31, 2017, an increase of \$3,281,000 over the \$3,694,000 reported during the same period in 2016. The increase is largely explained by higher headcount, commissions, tradeshows, travelling, subcontractors and stock-based compensation expenses when compared with last year due to the expansion of Opsens' sales channel for its FFR products.

## Research and development expenses

Research and development expenses totalled \$3,131,000 for the year ended August 31, 2017, an increase of \$387,000 over the \$2,744,000 reported during the same period in 2016. The variation is mainly explained by higher salaries and fringe benefits for our FFR activities, by higher supplies expenses and by higher stock-based compensation expenses.

#### **Financial expenses (revenues)**

Financial revenues reached \$7,000 for the year ended August 31, 2017 compared with financial expenses of \$57,000 for the same period in 2016. The increase in financial revenues is explained by higher interest revenues of \$73,000. This was partly offset by an increase in interest on long-term debt of \$21,000.

## Change in fair value of embedded derivative

The change in fair value of embedded derivative comes from the variance of the fair market value of the conversion option component of the convertible debenture. The convertible debenture contains a cash settlement feature, which under IAS 32, "Financial Instruments: Presentation", is accounted for as a compound instrument with a debt component and a separate embedded derivative representing the conversion option. Both the debt and embedded derivative



components of this compound financial instrument are measured at fair value on initial recognition. The debt component is subsequently accounted for at amortized cost using the effective interest rate method. The embedded derivative is subsequently measured at fair value at each reporting date with gains and losses in fair value recognized through profit or loss. During the year ended August 31, 2017, an expense of \$164,000 (\$733,000 for the year ended August 31, 2016) was recorded in the consolidated statements of loss and comprehensive loss.

#### Net loss

As a result of the foregoing, net loss for the year ended August 31, 2017 was \$6,537,000 compared with \$9,282,000 for the same period in 2016.

## CONSOLIDATED STATEMENT OF FINANCIAL POSITION DATA

(In thousands of Canadian dollars)	As at August 31, 2017	As at August 31, 2016	As at August 31, 2015
	\$	\$	\$
Current assets	23,607	12,570	11,077
Total assets	27,610	16,861	12,763
Current liabilities	7,698	3,067	2,584
Long-term liabilities	1,947	6,482	4,286
Shareholders' equity	17,965	7,312	5,893

Total assets as at August 31, 2017 were \$27,610,000 compared with \$16,861,000 as at August 31, 2016. The increase is mainly related to higher cash and cash equivalents of \$6,667,000 explained by the closing of an equity financing of \$14,950,500 in December 2016, by higher trade and other receivables of \$2,238,000 and by higher inventory of \$1,390,000 explained by an increase of the medical sector revenues.

Current liabilities totalled \$7,698,000 as at August 31, 2017 compared with \$3,067,000 as at August 31, 2016. The increase is mainly explained by the reclassification of the convertible debenture amounting to \$3,853,000 in the current portion of liabilities because its maturity is now less than twelve months. Also, the increase is explained by higher accounts payable and accrued liabilities of \$868,000 related to the increase in production of FFR products.

Long-term liabilities totalled \$1,947,000 as at August 31, 2017 compared with \$6,482,000 as at August 31, 2016, a decrease of \$4,535,000. The decrease is mainly explained by the reclassification of the convertible debenture in the current portion of liabilities as discussed previously.



## SUMMARY OF CONSOLIDATED QUARTERLY RESULTS

The summary below presents the periods in which Opsens published unaudited interim financial statements.

(Unaudited, in thousands of Canadian dollars, except for information per share)	Three-month period ended August 31, 2017	Three-month period ended May 31, 2017	Three-month period ended February 28, 2017	Three-month period ended November 30, 2016
	\$	\$	\$	\$
Revenues Net loss for the period	4,307 (1,153)	4,892 (1,842)	4,808 (1,001)	3,745 (2,541)
Net loss per share – Basic and diluted	(0.02)	(0.02)	(0.01)	(0.03)
(Unaudited, in thousands of Canadian dollars, except for information per share)	Three-month period ended August 31, 2016	Three-month period ended May 31, 2016	Three-month period ended February 29, 2016	Three-month period ended November 30, 2015
	period ended	period ended	period ended February 29,	period ended November 30,
	period ended August 31, 2016	period ended May 31, 2016	period ended February 29, 2016	period ended November 30, 2015

For the Medical segment, activities are generally slower in the fourth quarter due to the summer vacations of physicians.



## LIQUIDITY AND CAPITAL RESOURCES

As of August 31, 2017, the Company had cash and cash equivalents of \$12,570,000 compared with \$5,903,000 as of August 31, 2016. Of this amount as of August 31, 2017, \$11,776,000 was invested in highly liquid, safe investments. As of August 31, 2017, Opsens had a working capital of \$15,909,000, compared with \$9,503,000 as of August 31, 2016.

On December 8, 2016, the Company completed a public offering for aggregate gross proceeds of \$14,950,500. In connection with the offering, the Company issued a total of 9,967,000 shares at a price of \$1.50 per share.

Expenses of the offering include underwriting fees of \$889,530 and other professional fees and miscellaneous fees of \$305,403 for total fees of \$1,194,933.

The company intend the use of proceeds from the equity financing as follow:

(In thousands of Canadian dollars)	Use of funds as planned	Over- Allotment	Funds available to Opsens from equity financing	Actual use of funds as at August, 2017	Funds remaining to be used
	\$	\$	\$	\$	\$
Net proceeds from the issue, including the over-allotment option	11,870,470	1,885,097	13,755,567	6,702,487	7,053,080
Use of proceeds					
Sales and Marketing	7,869,970	1,885,097	9,755,067	4,574,615	5,180,452
Research and Development					
Production of clinical data	920,000	-	920,000	-	920,000
Further the development of Opsens' FFR technology	2,360,000	-	2,360,000	1,407,372	952,628
Working capital	720,500	-	720,500	720,500	-
Total use of proceeds	11,870,470	1,885,097	13,755,567	6,702,487	7,053,080

There are no main variance between the use of funds planned and actual.

On May 27, 2016, the Company entered into a loan agreement of \$836,000, net of transaction costs of \$9,000, with Investissement Québec. This loan bears interest at prime rate plus 0.25%, is payable in monthly instalments of \$18,750, and will be maturing in May 2020. This loan is secured by a movable hypothec on the Company's assets. Under this loan agreement, the Company is subject to certain covenants with respect to maintaining certain financial ratios, which were met as of the date of this MD&A. On March 7, 2017, the Company received the final disbursement of the loan amounting to \$55,000.

On May 16, 2016, the Company completed a non-brokered private placement offering for aggregate gross proceeds of \$4,999,050. In connection with the offering, the Company issued a total of 4,761,000 units at a price of \$1.05 per unit. Each unit consists of one common share in the capital stock of Opsens and one-half of one common share purchase warrant, with each whole common share purchase warrant entitling the holder thereof to purchase one common share at a price of \$1.55 until November 16, 2017.

Expenses of the offering include professional fees and miscellaneous fees for total fees of \$102,563.



On May 20, 2016, the Company received an amount of \$894,000 from the landlord in accordance with the long-term lease signed by the Company to relocate its medical activities. This amount is presented in the balance sheet under the caption "Deferred lease inducements".

On April 18, 2016, the Company entered into a loan agreement amounting to \$497,500, net of transaction costs of \$2,500, with Desjardins. This loan bears interest at prime rate plus 2.0%, is payable in monthly instalments of \$10,417, calculated over an amortization period of forty-eight (48) months and will be maturing in April 2018. This loan is secured by a movable hypothec on the Company's assets. Under this loan agreement, the Company is subject to certain covenants with respect to maintaining certain financial ratios, which were met as of the date of this MD&A.

Under an agreement entered into with Canada Economic Development ("CED"), the Company may receive a refundable contribution of a maximum amount of \$200,000, non-interest bearing, to cover expenses related to the commercialization of its OptoWire product for the FFR market. This contribution is paid out based on presentation by the Company of invoices related to specific expenses since May 22, 2015. On April 1, 2016, the Company received an amount of \$65,000 of which \$28,000 was recognized against administrative and sales and marketing expenses. On March 29, 2017, the Company received the final disbursement of the contribution amounting to \$135,000 of which \$48,000 was recognized against administrative and sales and marketing expenses.

On December 22, 2015, the Company completed a public offering for aggregate gross proceeds of \$5,000,000. In connection with the offering, the Company issued a total of 5,681,819 units at a price of \$0.88 per unit. Each unit consists of one common share in the capital stock of Opsens and one-half of one common share purchase warrant, with each whole common share purchase warrant entitling the holder thereof to purchase one common share at a price of \$1.20 until June 22, 2017.

Expenses of the offering include underwriting fees of \$276,202 and other professional fees and miscellaneous fees of \$323,713 for total fees of \$599,915.

The Company also issued 313,886 broker warrants as additional compensation, each warrant entitling the holder to purchase one common share of the Corporation at a price of \$0.88 until June 22, 2017.

Concurrently with the public offering, the Company completed a non-brokered private placement offering of 184,400 units at a price of \$0.88 per unit for aggregate gross proceeds of \$162,272. Each unit comprises the same terms and conditions than the units issued under the public offering. Expenses related to the private placement amount to \$10,083.

The Company has an authorized line of credit for a maximum amount of \$200,000, \$50,000 of which is available at all times and does not take into consideration the margining. When using the line of credit in an amount varying from \$50,000 and \$100,000, the available credit is limited to an amount that is equal to 75% of Canadian accounts receivable and 65% of foreign accounts receivable plus 50% of inventories of raw materials and finished goods. If the amount used exceeds \$100,000, the credit available is limited to an amount equal to 75% of Canadian accounts receivable and 90% of insured foreign accounts receivable plus 50% of inventories of raw materials and finished goods. This line of credit bears interest at the financial institution's prime rate plus 2% and is repayable on a weekly basis by \$5,000 tranches. It is secured by a first-rank movable hypothec for an amount of \$750,000 on the universality of receivables and inventories.

Based on its cash and cash equivalents position, Opsens has the financial resources necessary to maintain short-term operations, honour its commitments and support its anticipated growth and development activities. From a medium-term perspective, Opsens may need to raise additional financing by issuing equity securities and/or debt. From a long-term perspective, there is uncertainty about obtaining additional financing, given the risks and uncertainties identified in the *Risks and Uncertainties* section of the Annual Information Form. Changes in cash and cash equivalents position will largely depend on the rate of revenue growth in upcoming quarters.



## SUMMARY OF CASH FLOWS

(In thousands of Canadian dollars)	Year Ended August 31, 2017	Year Ended August 31, 2016
	\$	\$
Operating activities	(8,777)	(9,496)
Investing activities	(430)	(3,120)
Financing activities	15,888	11,284
Effect of foreign exchange rate changes on cash and cash equivalent	(14)	31
Net change in cash and cash equivalents	6,667	(1,301)

## **Operating activities**

Cash flows used by our operating activities for the year ended August 31, 2017 were \$8,777,000 compared with \$9,496,000 for the same period last year. The decrease in the cash flows used by our operating activities is mainly explained by a positive variance of EBITDACO as explained previously. This is partly offset by a negative variance in changes in non-cash operating working capital items mostly related to trade and other receivables.

## **Investing activities**

For the year ended August 31, 2017, cash flows used by our investing activities reached \$430,000 compared to \$3,120,000 for the year ended August 31, 2016. The decrease is mainly explained by the acquisitions of property, plant and equipment related to the relocation in the new facility in 2016.

## **Financing activities**

For the year ended August 31, 2017, cash flows generated by our financing reach \$15,888,000 compared to 11,284,000 for the year ended August 31, 2016. The increased is mainly explained by a higher equity financing, partly offset by lower long-term debt issuance.



## COMMITMENTS

#### Leases

The Company leases offices in Québec under operating leases expiring on April 30, 2018 and September 30, 2025. The main agreement is renewable for an additional five-year period.

Future payments for the leases, totalling \$4,890,902, required in each of the forthcoming years are as follows:

	<u>\$</u>
2018	669,101
2019	555,236
2020	567,747
2021	580,962
2022	593,349
Thereafter	1,924,507

## SUBSEQUENT EVENT

On September 1, 2017, the Company achieved a technical milestone related to the agreement with Abiomed and the Company received a payment, amounting to \$936,900 (US\$750,000) that will be recorded as licensing revenues in the consolidated statements of loss and comprehensive loss for fiscal year 2018.

On September 7, 2017, the Company has signed a loan agreement amounting to a maximum of \$216,000 for acquisition of property, plant and equipment.

On September 8, 2017, the Company has signed an agreement amounting to \$1,574,734 with a supplier for raw material purchases for the next 24 months.



## INFORMATION BY REPORTABLE SEGMENTS

Sector's Information

Segment liabilities

The Company is organized into two segments: Medical and Industrial.

*Medical segment*: In this segment, Opsens focuses mainly on the measure of FFR in interventional cardiology.

*Industrial segment*: In this segment, Opsens' develops, manufactures and installs innovative fiber optic sensing solutions for critical applications such as the monitoring of oil wells and other demanding industrial applications.

The principal factors employed in the identification of the two segments reflected in this note include the Company's organizational structure, the nature of the reporting lines to the President and Chief Executive Officer and the structure of internal reporting documentation such as management accounts and budgets.

The same accounting policies are used for both reportable segments. Operations are carried out in the normal course of operations and are measured at the exchange amount, which approximates prevailing prices in the markets.

	Years ended August 31,					
			2017			2016
	Medical	Industrial	Total	Medical	Industrial	Total
	\$	\$	\$	\$	\$	\$
External sales	16,269,011	1,482,985	17,751,996	6,429,256	3,171,561	9,600,817
Internal sales	-	269,505	269,505	-	413,982	413,982
Gross margin	6,886,549	610,992	7,497,541	1,041,707	591,105	1,632,812
Depreciation of property, plant and equipment	608,453	90,163	698,616	443,355	105,875	549,230
Amortization of intangible assets	75,927	14,566	90,493	64,543	8,224	72,767
Financial expenses (revenues)	(289,936)	282,743	(7,193)	(167,106)	223,970	56,864
Change in fair value of embedded derivative	163,745	-	163,745	732,425	-	732,425
Net loss	(4,879,287)	(1,659,988)	(6,539,275)	(7,247,523)	(2,031,912)	(9,279,435)
Acquisition of property, plant and equipment	490,155	9,024	499,179	2,934,675	131,924	3,066,599
Additions to intangible assets	86,285	18,515	104,800	108,264	54,376	162,640
Segment assets	25,992,083	1,617,718	27,609,801	14,281,597	2,579,879	16,861,476

**156,960** 

9,644,477

8,973,258

575,795

9,487,517

9,549,053



The Company's net loss per reportable segments reconciles to its consolidated financial statements as follows:

	Years ended August 31,		
	2017	2016	
	\$	\$	
Gross margin per reportable segments	7,497,541	1,632,812	
Elimination of inter-segment profits	2,232	(2,234)	
Gross margin	7,499,773	1,630,578	
Net loss per reportable segments	(6,539,275)	(9,279,435)	
Elimination of inter-segment profits	2,232	(2,234)	
Net loss and comprehensive loss	(6,537,043)	(9,281,669)	
Geographic sector's information			
	Years ended A	ugust 31,	
	2017	2015	
	\$	\$	
Revenue per geographic sector			
Japan	6,586,561	3,521,669	
United States	5,100,077	1,506,971	
Canada	1,625,567	2,207,299	
Other*	4,439,791	2,364,878	
	17,751,996	9,600,817	

<sup>\*</sup> Comprised of revenues generated in countries for which amounts are individually not significant.

Revenues are attributed to the geographic sector based on the clients' location. Capital assets, which include property, plant and equipment and intangible assets, are all located in Canada.

During the year ended August 31, 2017, revenues from two clients represented individually more than 10% of the total revenues of the Company, i.e. 40% (medical's reportable segment) and 17% (medical's reportable segment).

During the year ended August 31, 2016, revenues from one client represented individually more than 10% of the total revenues of the Company, i.e. approximately 37% (medical's reportable segment).

## Medical segment

For the year ended August 31, 2017, revenues from medical segment were \$16,269,000 compared with \$6,429,000 for the year ended August 31, 2016, an increase of \$9,840,000. The increase is explained by higher FFR revenues of \$7,109,000 and by higher other medical revenues of \$1,724,000.

Gross margin was \$6,887,000 for the year ended August 31, 2017 compared with \$1,042,000 for the year ended August 31, 2016, an increase of \$5,845,000. The gross margin percentage for the year ended August 31, 2016 was 16% compared to 42% for the year ended August 31, 2017. The increase in gross margin is mainly explained by higher revenues from our FFR products and from other medical revenues products line. The increase in gross margin percentage reflects higher sales volume and the related scale economy combined with enhanced productivity.



Net loss for the medical segment was \$4,879,000 for the year ended August 31, 2017 compared with \$7,248,000 for the same period last year. The decrease in net loss is mainly explained by higher medical sales, partly offset by higher sales and marketing expenses as explained previously.

Working capital for the medical segment as at August 31, 2017 was \$14,675,000 compared with \$7,884,000 as at August 31, 2016. The increase of \$6,791,000 is mainly explained by higher cash and cash equivalents of \$6,737,000 arising from the equity financing completed in December 2016, by higher trade and other receivables of \$2,764,000 and by higher inventory of \$1,771,000. This is partly offset by a higher level of accounts payable and accrued liabilities of \$1,192,000 and by the reclassification of the convertible debenture, amounting to \$3,853,000, in current liabilities since its maturity date is less than twelve (12) months.

## Industrial segment

For the year ended August 31, 2017, revenues from industrial segment were \$1,483,000 compared with \$3,172,000 for the year ended August 31, 2016, a decrease of \$1,689,000. The decrease is explained by lower revenues related to the oil and gas product line of \$1,427,000, a consequence of the difficult economic environment in Alberta, Canada.

Gross margin was \$611,000 for the year ended August 31, 2017 compared with \$591,000 for the same period in 2016, an increase of \$20,000. Gross margin percentage increase from 19% for the year ended August 31, 2016 to 41% for the year ended August 31, 2017. The increase in gross margin percentage is mainly explained by sales of product with higher margin than last year and by lower allowance for obsolete inventory than last year.

Net loss for the industrial segment was \$1,660,000 for the year ended August 31, 2017 compared to \$2,032,000 for the year ended August 31, 2016. The decrease in net loss is mainly explained by a lower level of administrative and marketing expenses.

Working capital for the industrial segment as at August 31, 2017 was \$1,235,000 compared with \$1,619,000 as at August 31, 2016. The decrease of \$384,000 is mainly explained by lower trade and other receivables of \$527,000 and by lower inventory of \$384,000. This is partly offset by lower accounts payable and accrued liabilities of \$373,000.

#### **FOURTH QUARTER 2017**

#### Revenues

Revenue totalled \$4,307,000 for the quarter ended August 31, 2017 compared with \$3,025,000 a year earlier. The increase is explained by higher FFR revenues of \$666,000 and other medical revenues of \$807,000. This was partially offset by a decrease in industrial revenues of \$191,000.

## Gross margin

Information and analysis in this section do not take into consideration licensing revenues arising from the Abiomed agreement (\$92,000 the quarter ended August 31, 2017 and 2016, respectively).

Gross margin was \$1,913,000 for the quarter ended August 31, 2017 compared with a negative gross margin of \$225,000 for the same period last year, an increase of \$2,138,000. The gross margin percentage increased from a negative gross margin percentage of 7% for the three-month period ended August 31, 2016 to 44% for the three-month period ended August 31, 2017. The increase in gross margin is explained by higher medical revenues. The increase in gross margin percentage reflects higher sales volume and the related scale economy combined with enhanced productivity in medical sector. This was partly offset by the recognition of an allowance for obsolete inventory of \$157,000.



## Administrative expenses

Administrative expenses were \$767,000 and \$833,000, respectively, for the three-month periods ended August 31, 2017 and 2016. The decrease is mainly explained by lower salaries and fringe benefits, professional fees and rental fees. This is partly offset by a higher allowance for doubtful account.

## Sales and marketing expenses

Sales and marketing expenses for the quarter ended August 31, 2017 totalled \$1,705,000, an increase of \$438,000 over the \$1,267,000 reported during the same period in 2016. The increase is largely explained by higher headcount, commissions, tradeshows, travelling, subcontractor and stock-based compensation expenses when compared with last year due to the expansion of Opsens' sales channel for its FFR products.

#### Research and development expenses

Research and development expenses totalled \$736,000 for the three-month period ended August 31, 2017, an increase of 34,000\$ over the \$702,000 reported during the same period in 2016. The variation is mainly explained by higher salaries and fringe benefits and by higher supplies.

#### **Financial expenses**

Financial revenues reached \$134,000 for the three-month period ended August 31, 2017 compared with financial expenses of \$2,000 for the same period last year. The increase in financial revenues during the period is explained by a more favorable exchange rate resulting in a positive impact of \$117,000 and by higher interest revenues of \$13,000.

## Change in fair value of embedded derivative

During the three-month period ended August 31, 2017, an expense of \$84,000 (\$88,000 for the three-month period ended August 31, 2016) was recorded in the consolidated statements of loss and comprehensive loss.

#### Net loss

As a result of the foregoing, net loss for the quarter ended August 31, 2017 was \$1,153,000 or \$0.02 compared with net loss of \$3,025,000 or \$0.04 for the same period in 2016.

#### INFORMATION ON SHARE CAPITAL

For the year ended August 31, 2017, the Company granted to some employees, Directors and consultants a total of 2,992,750 stock options with an average exercise price of \$1.49, cancelled 981,750 stock options with an exercise price of \$1.03 and 1,074,250 stock options with an average exercise price of \$0.40 were exercised.

For the year ended August 31, 2016, the Company granted to some employees, Directors and consultants a total of 2,154,750 stock options with an average exercise price of \$0.95, cancelled 93,750 stock options with an exercise price of \$0.79 and 574,250 stock options with an average exercise price of \$0.38 were exercised.

For the year ended August 31, 2017, 1,366,468 warrants expired with an average exercise price of \$1.20 and 1,870,528 warrants with an average exercise price of \$1.14 were exercised.

For the year ended August 31, 2016, the Company issued 5,313,610 warrants with units with an average exercise price of \$1.36 and issued 313,886 warrants to brokers with an average exercise price of \$0.88. Also, 2,670,110 warrants expired with an average exercise price of \$1.05 and 790,316 warrants with an average exercise price of \$0.74 were exercised.



As at November 14, 2017, the following components of shareholders' equity are outstanding:

Common shares	85,556,566
Stock options	5,939,250
Warrants	2,380,500
Convertible debenture	3,413,333
Securities on a fully diluted basis	97,289,649

The number of shares that would be issued upon conversion of the debenture may vary depending on various parameters such as the exchange rate and the conversion price per share. In the table above, the conversion was carried out on the assumption that the exchange rate between the U.S. dollar and the Canadian dollar is 1.28 and the conversion price is equal to \$0.75 per share.

No dividend was declared per share for each share class.

## RELATED-PARTY TRANSACTIONS

In the normal course of its operations, the Company has entered into transactions with related parties.

	Years ended	Years ended August 31,	
	2017	2016	
	\$	\$	
Professional fees paid to a company			
controlled by a director	59,134	29,248	

Fees are incurred for the Company's FFR activities.

## FINANCIAL INSTRUMENTS

#### Fair Value

The fair value of cash and cash equivalents, trade and other receivables and accounts payable and accrued liabilities approximates their carrying value due to their short-term maturities.

The fair value of long-term debt is based on the discounted value of future cash flows under the current financial arrangements at the interest rate the Company expects to currently negotiate for loans with similar terms and conditions and maturity dates. The fair value of long-term debt approximates its carrying value due to the current market rates.

The fair value of the convertible debenture is based on the discounted value of future cash flows under the current financial arrangements at the interest rate the Company expects to currently negotiate for loans with similar terms and conditions and maturity dates. The fair value of the debt component of the convertible debenture approximates \$2,143,900 as at August 31, 2017 (\$1,905,700 as at August 31, 2016) and is classified at level 2 in the fair value hierarchy.

## Valuation Techniques and Assumptions Applied for the Purposes of Measuring Fair Value

The Company must maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. The Company primarily applies the market approach for recurring fair value measurements. The three input levels used by the Company to measure fair value are the following:



A -- -4 A -- -- -- 4 21 2017

Level 1 – Unadjusted quoted prices in active markets for identical assets or liabilities. An active market for the asset or liability is a market in which transactions for the asset or liability occur with sufficient frequency and volume to provide pricing information on an ongoing basis.

Level 2 – Quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3 – Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

The following table summarizes the fair value hierarchy under which the Company's financial instruments are valued.

	As at August 31, 2017			
	Total	Level 1	Level 2	Level 3
	\$	\$	\$	\$
Financial assets (liabilities) measured at fair value:				
Convertible debenture – embedded derivative	(1,097,653)	-	(1,097,653)	
		As at Augus	t 31, 2016	
	Total	Level 1	Level 2	Level 3
	\$	\$	\$	\$
Financial assets (liabilities) measured at fair value:				
Convertible debenture – embedded derivative	(979,635)	_	(979,635)	_

As explained in note 13 of the Company's annual consolidated financial statements, the convertible debenture contains an embedded derivative that must be measured at fair value at each reporting date with gains and losses in fair value recognized through profit or loss. One of the most significant assumptions impacting the Company's valuation of this embedded derivative is the implied volatility. The fair value of the convertible debenture was determined using the Black-Scholes pricing model using an implied volatility of 51% (55% in 2016), a discount rate of 1.26% (0.57% in 2016) and an expected life of 0.2 years (1.2 years in 2016). A 1% change in the implied volatility factor would have changed the fair value of the embedded derivative by \$6,143 (\$9,575 for the year ended August 31, 2016).

#### **Risk Management**

The main risks arising from the Company's financial instruments are credit risk, liquidity risk, interest rate risk and foreign exchange risk. These risks arise from exposures that occur in the normal course of business and are managed on a consolidated Company basis.

#### Credit Risk

Credit risk is the risk of an unexpected loss if a customer or counterparty to a financial instrument fails to meet its contractual obligations. The Company regularly monitors credit risk exposure and takes steps to mitigate the likelihood of this exposure resulting in losses. The Company's exposure to credit risk currently relates to cash and cash equivalents and to trade and other receivables. The Company's credit risk management policies include the authorization to carry out investment transactions with recognized financial institutions with credit ratings of at least A and higher, in either



bonds, money market funds or guaranteed investment certificates. Consequently, the Company manages credit risk by complying with established investment policies.

The credit risk associated with trade and other receivables is generally considered normal as trade receivables consist of a large number of customers spread across diverse geographical areas. Generally, the Company does not require collateral or other security from customers for trade accounts receivable; however, credit is extended following an evaluation of creditworthiness. In addition, the Company performs ongoing credit reviews of all of its customers and establishes an allowance for doubtful accounts when accounts are determined to be at risks and/or uncollectible. Two major customers represented 34% of the Company's total accounts receivable as at August 31, 2017 (50% as at August 31, 2016).

As at August 31, 2017, 37% (56% as at August 31, 2016) of the accounts receivable were of more than 90 days whereas 34% (30% as at August 31, 2016) of those were less than 30 days. The maximum exposure to the risk of credit for accounts receivable corresponded to their book value. As at August 31, 2017, the allowance for doubtful accounts was established at \$940,929 (\$491,623 as at August 31, 2016).

## Liquidity Risk

Liquidity risk is the risk that the Company will encounter difficulty in meeting obligations associated with financial liabilities that are settled in cash and/or another financial asset. The Company's approach is to ensure it will have sufficient liquidity to meet operational, capital and regulatory requirements and obligations, under both normal and stressed circumstances. Cash flow projections are prepared and reviewed quarterly by the Board of Directors to ensure a sufficient continuity of funding. The funding strategies used to manage this risk include the Company's access to capital markets and debt securities issues.

The following are the contractual maturities of the financial liabilities (principal and interest, assuming current interest rates) as at August 31, 2017 and August 31, 2016:

August 31, 2017	Carrying		0 to 12	12 to 24	After
	amount	Cash flows	months	months	24 months
	\$	\$	\$	\$	\$
Accounts payable and					
accrued liabilities	2,909,516	2,909,516	2,909,516	-	-
Long-term debt	1,445,168	1,580,231	492,722	526,052	561,457
Convertible debenture	3,853,225	2,770,358	2,770,358	-	-
Total	8,207,909	7,260,105	6,172,596	526,052	561,457
August 31, 2016	Carrying		0 to 12	12 to 24	After
August 31, 2010	amount	Cash flows	months	months	24 months
	\$	\$	\$	\$	\$
Accounts payable and				·	
accrued liabilities	2,041,873	2,041,873	2,041,873	-	-
Long-term debt	1,784,654	1,930,582	530,651	502,285	897,646
Convertible debenture	3,792,839	2,898,533	-	2,898,533	-
Total	7,619,366	6,870,988	2,572,524	3,400,818	897,646



#### Interest Rate Risk

The Company's exposure to interest rate risk is summarized as follows:

Cash and cash equivalents

Trade and other receivables

Accounts payable and accrued liabilities

Long-term debt

Non-interest bearing, fixed and variable interest rates

Convertible debenture

Fixed interest rates

## **Interest Rate Sensitivity Analysis**

Interest rate risk exists when interest rate fluctuations modify the cash flows or the fair value of the Company's investments and embedded derivative. The Company owns investments with fixed interest rates. As at August 31, 2017, the Company was holding more than 94% (92% as at August 31, 2016) of its cash and cash equivalents in all-time redeemable term deposits.

All else being equal, a hypothetical 1% interest rate increase or decrease wouldn't have a significant impact on net loss and comprehensive loss for the year ended August 31, 2017 (not significant for the year ended August 31, 2016).

Financial expenses (revenues)

	Years ended August 31,		
	2017	2016	
	\$	\$	
Interest and bank charges	56,323	57,298	
Interest on long-term debt	70,379	44,967	
Interest and accreted interest on convertible debenture	69,979	69,629	
Gain on foreign currency translation	(19,374)	(3,988)	
Interest income	(184,500)	(111,042)	
	(7,193)	56,864	

## **Concentration Risk**

Concentration risk exists when investments are made with multiple entities that share similar characteristics or when a large investment is made with a single entity. As at August 31, 2017 and 2016, the Company was holding 100% of its cash equivalents portfolio in all-time redeemable term deposits with financial institutions with high creditworthiness.

#### Foreign Exchange Risk

The Company realizes certain sales and purchases and certain supplies and professional services in US dollars, Euros and British pound. Therefore, it is exposed to foreign currency fluctuations. The Company does not actively manage this risk.



## Foreign Currency Sensitivity Analysis

For the year ended August 31, 2017, if the Canadian dollar had strengthened 10% against the US dollar with all other variables held constant, net loss and comprehensive loss would have been \$79,000 higher (\$260,000 lower for the year ended August 31, 2016). Conversely, if the Canadian dollar had weakened 10% against the US dollar with all other variables held constant, net loss and comprehensive loss would have been \$79,000 lower for the year ended August 31, 2017 (\$260,000 higher for the year ended August 31, 2016).

For the year ended August 31, 2017, if the Canadian dollar had strengthened 10% against the Euros with all other variables held constant, net loss and comprehensive loss would have been \$322,000 higher (\$159,000 higher for the year ended August 31, 2016). Conversely, if the Canadian dollar had weakened 10% against the Euros with all other variables held constant, net loss and comprehensive loss would have been \$322,000 lower for the year ended August 31, 2017 (\$159,000 lower for the year ended August 31, 2016).

For the year ended August 31, 2017, if the Canadian dollar had strengthened 10% against the British pound with all other variables held constant, net loss and comprehensive loss would have been \$10,000 higher (\$42,000 higher for the year ended August 31, 2016). Conversely, if the Canadian dollar had weakened 10% against the British pound with all other variables held constant, net loss and comprehensive loss would have been \$10,000 lower for the year ended August 31, 2017 (\$42,000 lower for the year ended August 31, 2016).

As at August 31, 2017 and August 31, 2016, the risk to which the Company was exposed is established as follows:

	As at August 31,	As at August 31,
	2017	2016
	\$	\$
Cash and cash equivalents (US\$252,720; US\$125,202 as at August		
31, 2016)	316,810	163,903
Cash and cash equivalents (Euro 28,968; Euro 22,450 as at August	310,010	103,703
31, 2016)	43,125	32,842
Cash and cash equivalents (British pound 64; nil as at August	43,123	32,042
31, 2016)	103	_
Trade and other receivables (US\$1,741,221; US\$440,847 as at	100	
August 31, 2016)	2,182,794	578,410
Trade and other receivables (Euro 625,813; Euro 205,129 as at	2,202,77	2.0,
August 31, 2016)	931,647	300,083
Trade and other receivables (British pound 116,377; British pound	,	,
85,745 as at August 31, 2016)	188,463	147,679
Accounts payable and accrued liabilities (US\$757,978;	,	
US\$317,632 as at August 31, 2016)	(950,202)	(416,288)
Accounts payable and accrued liabilities (Euro 4,408;		
nil as at August 31, 2016)	(6,563)	-
Accounts payable and accrued liabilities (British pound 830;		
nil as at August 31, 2016)	(1,342)	-
Convertible debenture (US\$2,198,125; US\$2,144,864 as at		
August 31, 2016)	(2,755,572)	(2,813,204)
Embedded derivative (US\$875,600; US\$746,900		
as at August 31, 2016)	(1,097,653)	(979,635)
Total	(1,148,390)	(2,986,210)



## **CAPITAL MANAGEMENT**

The Company's objective in managing capital, primarily composed of shareholders' equity, long-term debt and the convertible debenture, is to ensure sufficient liquidity to fund production activities, R&D, general and administrative expenses, sales and marketing expenses, working capital and capital expenditures.

In the past, the Company has had access to liquidity through non-dilutive sources, including the sale of non-core assets, long-term debts, investment tax credits and government assistance, interest income and public equity offerings.

As at August 31, 2017, the Company's working capital amounted to \$15,909,209 (\$9,502,625 as at August 31, 2016), including cash and cash equivalents of \$12,570,299 (\$5,903,040 as at August 31, 2016). The accumulated deficit at the same date was \$37,076,057 (\$30,539,014 as at August 31, 2016). Based on the Company's assessment, which takes into account current cash and cash equivalents, as well as its strategic plan and corresponding budgets and forecasts, the Company believes that it has sufficient liquidity and financial resources to fund planned expenditures and other working capital needs for at least, but not limited to, the 12-month period following the consolidated statements of financial position date of August 31, 2017.

The Company believes that its current liquid assets are sufficient to finance its activities in the short-term.

The Company manages the capital structure and makes adjustments to it in light of changes in economic conditions and the risk characteristics of the underlying assets. Capital management objectives, policies and procedures have remained unchanged since the last fiscal year.

For the years ended August 31, 2017 and 2016, the Company has not been in default under any of its obligations regarding the long-term debt.

## CAPACITY TO PRODUCE RESULTS

As discussed in the section "LIQUIDITY AND CAPITAL RESOURCES", the Company has the required financial resources for its short-term operations, to fulfill its commitments, to support its growth plan and for the development of its activities. On a mid-term perspective, it is possible that additional financing, through the issuance of shares or debt financing or any other means of financing, might be required.

From the human resources' perspective, there are no vacancies in the major executive positions within the Company. However, additional technical and production personnel as well as sales and marketing personnel will be required to support the expected growth. Taking into account the employment market in Canada, US and EMEA, Opsens is confident in its capacity to recruit qualified human resources in a timely fashion.

Regarding the strategy on corporate executive remuneration, it is oriented towards creation of long-term value for the shareholders. Several corporate executives hold an important share and share-purchase option position, with rights to be acquired over a four-year period in order to align shareholders' interest with corporate executives' interest. This long-term vision stimulates innovation and the development of recurrent revenues.



## NEW ACCOUNTING STANDARDS

There are no IFRSs or International Financial Reporting Interpretations Committee ("IFRIC") that are effective for the first time in 2017 that would be expected to have a material impact on the Company.

#### Not yet adopted

#### IFRS 9. Financial Instruments

In July 2014, the IASB issued the final version of IFRS 9, *Financial Instruments*. The new standard will replace IAS 39, *Financial instruments: recognition and measurement*. The final amendments made in the new version include guidance for the classification and measurement of financial assets and a third measurement category for financial assets, fair value through other comprehensive income. The standard also contains a new expected loss impairment model for debt instruments measured at amortized cost or fair value through other comprehensive income, lease receivables, contract assets and certain written loan commitments and financial guarantee contracts. The standard is effective for annual periods beginning on or after January 1, 2018 and must be applied retrospectively with some exceptions. Early adoption is permitted. Restatement of prior periods in relation to the classification and measurement, including impairment, is not required. The Company has not yet assessed the impact of this new standard.

#### IFRS 15, Revenue from Contracts with Customers

In May 2014, the IASB issued IFRS 15, *Revenue from contracts with customers*. IFRS 15 replaces all previous revenue recognition standards, including IAS 18, *Revenue*, and related interpretations such as IFRIC 13, *Customer loyalty programmes*. The standard sets out the requirements for recognizing revenue. Specifically, the new standard introduces a comprehensive framework with the general principle being that an entity recognizes revenue to depict the transfer of promised goods and services in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The standard introduces more prescriptive guidance than was included in previous standards and may result in changes in classification and disclosure in addition to changes in the timing of recognition for certain types of revenues. On July 22, 2015, the IASB has confirmed a one-year deferral of the effective date of IFRS 15 to January 1, 2018.

In April 2016, the IASB issued clarifications to IFRS 15, Revenue from contracts with customers. These clarifications provide additional clarity on revenue recognition related to identifying performance obligations, application guidance on principal versus agent and licenses of intellectual property. The Company is currently evaluating the impact of this new standard on its financial statements.

#### IFRS 16, Lease

On January 13, 2016, the IASB released IFRS 16, Leases, which replace IAS 17, Leases, and the related interpretations on leases such as IFRIC 4, Determining whether an arrangement contains a lease, SIC 15, Operating leases – Incentives and SIC 27, Evaluating the substance of transactions in the legal form of a lease. This new standard specifies how to recognize, measure, present and disclose leases. It also provides a single lessee accounting model, requiring lessees to recognize assets and liabilities for all leases unless lease term is 12 months or less or the underlying asset has a small value. Accounting for the lessor remain substantially unchanged. The standard is effective for periods beginning on or after January 1, 2019, with earlier application permitted for companies that also apply IFRS 15, Revenue from Contracts with Customers. The Company has not yet assessed the impact of this new standard.

#### IAS 7, Statement of cash flows

On January 29, 2016, the IASB published amendments to IAS 7, *Statements of cash flows*. The amendments are intended to clarify IAS 7 to improve information provided to users of financial statements about an entity's financing activities. They are effective for annual periods beginning on or after January 1, 2017, with earlier application being permitted. The adoption of these new requirements will have no impact on the Company's consolidated financial statements.



## IFRIC 23, Uncertainty over income Tax Treatments

On June 7, 2017, the IASB issued IFRIC 23, Uncertainty over Income Tax Treatments (the "Interpretation"). 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 effective 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;
- Reflect an uncertainty in the amount of income tax payable (recoverable) if it is probable that it will pay (or recover) an amount for the uncertainty; and
- Measure a tax uncertainty based on the most likely amount or expected value depending on whichever method better predicts the amount payable (recoverable).

The Company has not yet assessed the impact of this new interpretation.

#### DISCLOSURE CONTROLS AND PROCEDURES

In accordance with the requirements of National Instrument 52-109—Certification of Disclosure in Issuers' Annual and Interim Filings ("NI 52-109"), the Company's management, including the Chief Executive Officer ("CEO") and the Chief Financial Officer ("CFO"), have evaluated the effectiveness of the Company's disclosure controls and procedures («DC&P»). Based upon the results of the evaluation, the Company's CEO and CFO have concluded that as at August 31, 2017, the Company's disclosure controls and procedures to provide reasonable assurance that the information required to be disclosed by the Company in reports it files is recorded, processed, summarized and reported within the appropriate time periods and forms were effective.

#### INTERNAL CONTROL OVER FINANCIAL REPORTING

Internal control over financial reporting ("ICFR") is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with applicable IFRS. Internal control over financial reporting should include those policies and procedures that establish the following:

- maintenance of records in reasonable detail, that accurately and fairly reflect the transactions and dispositions of assets;
- reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with applicable IFRS;
- receipts and expenditures are only being made in accordance with authorizations of management or the Board of Directors; and
- reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Company's assets that could have a material effect on the financial instruments.

During the fiscal year, consistent with the Company's listing on the Toronto Stock Exchange, the Company's management, with the participation of the CEO and CFO, assessed the effectiveness of the Company's internal controls over financial reporting and concluded that as at August 31, 2017, the Company's internal control over financial reporting was effective.

## LIMITATIONS OF DISCLOSURE CONTROLS AND PROCEDURES AND INTERNAL CONTROL OVER FINANCIAL REPORTING

Investors should be aware that inherent limitations on the ability of the Company's certifying officers to design and implement on a cost effective basis DC&P and ICFR as defined in NI 52-109 in the first annual financial period following the completion of the graduation to the Toronto Stock Exchange may result in additional risks to the quality, reliability, transparency and timeliness of annual filings and other filings provided under securities legislation. The Company's management, including the CEO and CFO, believe that due to inherent limitations, any disclosure controls



and procedures or internal control over financial reporting, no matter how well designed and operated, can provide only reasonable, not absolute, assurance of achieving the desired control objectives. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that any design will not succeed in achieving its stated goals under all potential future conditions. Accordingly, because of the inherent limitations in a cost effective control system, misstatements due to error or fraud may occur and not be detected. Additionally, management is required to use judgment in evaluating controls and procedures.

#### RISK FACTORS AND UNCERTAINTIES

The Company operates in an industry that contains various risks and uncertainties. Additional risks and uncertainties not presently known by the Company, or which the Company deems to be currently insignificant, may impede the Company's performance. The materialization of one of the risks could harm the Company's activities and have significant negative impacts on its financial situation and its operating results. In that case, the Company's stock price could be affected.

There are important risks which management believes could impact the Company's business. For information on risks and uncertainties, please also refer to the "Risk Factors" section of our most recent Annual Information Form.

#### OFF-BALANCE SHEET ARRANGEMENTS

As of August 31, 2017, the Company was not the primary beneficiary in Special Purpose Entities and there were no off-balance sheet arrangements.

#### OTHER INFORMATION

Updated information on the Company can be found on the SEDAR Web site at http://www.sedar.com.

On behalf of management, Chief Financial Officer and Corporate Secretary

(s) Robin Villeneuve, CPA, CA

November 14, 2017