

## **MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS FOR THE THREE-MONTH AND SIX-MONTH PERIOD ENDED FEBRUARY 28, 2019**

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 three-month and six-month period ended February 28, 2019 in comparison with the corresponding period ended February 28, 2018. In this Management's Discussion and Analysis (MD&A), Opsens, "the Company", "we", "us" and "our" mean Opsens Inc. and its subsidiary. This MD&A should be read and interpreted in conjunction with the information contained in our annual consolidated financial statements for the years ended August 31, 2018 and 2017, 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 April 10, 2019. 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 all currently available information, 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 April 10, 2019 and is subject to change after this 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**

The Company's primary focus is on physiological measurement such as Fractional Flow Reserve (FFR) and dPR in the interventional cardiology market. This measurement is mainly used for the diagnosis of blockages in the coronary arteries and has begun to extend to other peripheral specialties. Opsens offers an optical guidewire (OptoWire) to measure pressure to diagnose and improve clinical outcomes in patients with coronary heart disease. Opsens also operates in the industrial sector through its wholly-owned subsidiary Opsens Solutions Inc. (Solutions). Solutions develops, manufactures and installs innovative measurement solutions using fiber optic sensors for critical and demanding industrial applications.

Opsens owns nine patents and has three patents pending to protect technologies in its medical and industrial sectors.

### **SECTORS OF ACTIVITY**

**In the medical field,** Opsens markets the OptoWire and the OptoMonitor for interventional cardiology to provide cardiologists with an optimized pressure guidewire to navigate coronary arteries and cross blockages with ease while measuring intracoronary blood pressure. This procedure is called measurement of FFR or more broadly, physiology.

Opsens has obtained the required commercial approvals for the OptoWire and OptoMonitor in the world's largest markets, namely the United States, Europe, Japan and Canada. Combined, these markets represent approximately 85%

of the global market for FFR products. Furthermore, Opsens developed a product that allows physicians to diagnose the coronary-artery blockages at rest. This new product, known as dPR, is Opsens' resting pressure measurement method. It is available through the OptoMonitor and works in combination with the OptoWire. Opsens' dPR is already being marketed in Japan, Canada and Europe.

Opsens has established a direct sales force in the U.S. and Canada and utilizes distributors in Europe (including the Middle East) and Japan.

Opsens also provides a broad selection of miniature optical sensors to measure pressure and temperature that can be used in a wide range of applications and can be integrated into other medical devices.

**In the industrial sector**, Opsens' expertise, technology and products meet the needs of multiple markets, including aerospace, semiconductor, geotechnical, structural, oil and gas, mining, laboratories and others. Opsens' portfolio of products and technologies can be adapted to measure various parameters under the most difficult conditions and bring significant benefits in terms of optimizing production and reducing risks to the environment and health.

## MARKET OVERVIEW

**In the medical field**, particularly in interventional cardiology, FFR represents a significant and growing opportunity for the Company. In recent years, the prevalence of coronary heart disease has increased rapidly. In the AHA report, "Heart Disease and Stroke Statistics - 2017", which is based on health data compiled in more than 190 countries, coronary heart disease is the leading cause of death worldwide with 17.3 million deaths per year. This number is expected to exceed 23.6 million deaths in 2030. Coronary heart disease is one of the leading causes of death in the developed world, and the cost of managing and treating these diseases is a significant burden to society. The benefits of FFR were demonstrated in various clinical studies such as FAME I and FAME II published in 2009 and 2012, respectively in the New England Journal of Medicine. The FAME I study showed that the FFR-guided treatment rather than the 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. Several reports have also shown inaccurate diagnoses that can lead to misuse or inappropriate use of "stents."

The measurement of FFR has been shown to be more accurate and now holds the highest recommendation from the European Society of Cardiology (Class IA).

In the United States, support for the increasing use of FFR continues to grow. In March 2017, the appropriate use criteria ("AUC") for stable ischemic heart disease were updated to emphasize the use of FFR given its importance. The goal of the AUC is to provide a framework for assessing general clinical practices and improving the quality of care. The new AUCs reflect a recognition of the role and value of FFR, which should be beneficial for the expand use of FFR technologies. Payers, including Medicare, use the AUC to help formulate their repayment criteria.

In April 2018, the Ministry of Health, Labour and Welfare (MHLW) in Japan introduced a new regulation requiring the physiology evaluation of all coronary artery stenosis prior to its treatment, specifically mentioning FFR as an evaluation method. The MHLW revised the medical fees and established a requirement to assess functional ischemia (blockage of arteries) prior to treatment.

These recent developments contribute to the steady growth of the FFR market. According to management and industry sources estimates <sup>(1)</sup>, this market exceeded US\$500 million worldwide in 2018 and is expected to exceed US\$1 billion annually in the medium term.

(1) Opsens FFR Market Calculations based on R. Scott Huennekens, "Volcano's CEO Hosts NASDAQ Analyst Day" *TRANSCRIPT* p.5 (2013-03-7), JOHN T. DAHLDORF, "Volcano's Annual Report 2012" and St. Jude Medical 2015 – Investors Conference , February 6, 2015.

**In the industrial field**, the vast market presents numerous opportunities. The Company focuses mainly on the following markets:

- Structural Integrity Monitoring Market: Opportunities are mainly related to stress, load and displacement measures. The applications are in geotechnics, civil engineering, energy and oil and gas. The new industrial versions of strain sensors such as the extensometer and the load cell are the main flagship products for these applications;
- Pressure Monitoring Solutions Market: Opportunities are mainly related to absolute and differential pressure measurements. Pressure measurements are at the heart of many industrial applications in energy, geotechnics, oil and gas, and aerospace. The new industrial versions of the pressure sensor and the latest of a differential pressure sensor are the main flagship products for these applications;
- Traditional Niche Applications Market: Opsens is currently engaged in niche applications such as semiconductor, electro-explosive devices (EEDs), Steam Assisted Gravity Drainage (SAGD) in Western Canada, and in laboratories (special projects and customized products).

## COMPETITION

**In the medical sector**, the FFR measurement market has five competitors and is currently dominated by two major players who commercialize a first-generation electrical technology. Competition is based on technological advantages, brand recognition, customer service, marketing support and price.

**In the industrial sector**, there are significant number of competitors in the field. This competition is based primarily on technological advantages. Our direct competition is made up of both open and closed-end companies with a global presence.

## CORPORATE GROWTH STRATEGY

Opsens' growth strategy is to become a key player in the medical sector, particularly in the field of interventional cardiology, focusing on the measurement of FFR, where its products and technologies offer major advantages over the competition. The Company also aims to capitalize on its technologies and products in the industrial markets. To this end, the Company implements its corporate strategy based on its various segments of operations.

**In the medical sector**, the Company's growth strategy in the field of interventional cardiology is carried out by:

- Increase of its market shares in the fast-growing FFR market

To achieve this, management has set up the following sales force:

- Direct Sales Force: Opsens has established a sales team, hiring a seasoned staff with solid expertise in interventional cardiology. This sales force has been implemented to increase Opsens' market and commercialization penetration in the United States and Canada;
- Distributor Sales Force: Opsens has signed distribution agreements in Europe, the Middle East, Japan and Asia. These agreements allow Opsens to focus on market penetration with leading business partners in their respective markets.

Interventional cardiologists have started focusing on new measurements performed at rest. These measurements require greater accuracy and constant and repeated guidewire performance over time. With its second-generation optical sensor, the Company is convinced that there will be a growing interest with the OptoWire's recognized features that produce:

- Better design features and product specifications for improved mechanical performances (e.g., torque capacity and handling);
- A no-drift<sup>(2)</sup> measurement technology for improved reliability of FFR measurements, essential in cardiologists' decision-making. Competing FFR technologies have higher drift levels;
- Better connectivity as the OptoWire is insensitive to blood contamination. It can be easily reconnected without compromising accuracy of the measurement.

- Clinical Data

The Company is presently undertaking and planning to conduct clinical studies. The objective of these studies is to demonstrate the superiority of Opsens' FFR products.

- Innovation

In this ever-evolving and state-of-the-art market, Opsens plans to leverage its expertise in fiber optic sensing medical devices to create new FFR products and develop new fiber optic sensing technologies for physiology assessment that address other invasive unmet medical needs. Commitment to innovation has always been a driving force behind the Company's success and desire to improve its intellectual property portfolio and value proposition for customers.

In other medical products, Opsens offers a broad selection of miniature optical sensors to measure pressure and temperature that can be used in a wide range of applications and that can be integrated into other medical devices. The Company also aims to partner with key players in the industry, such as its partnership with Abiomed inc. (Abiomed), for the use of its miniature sensors and technology.

**In the industrial sector**, the Company's business strategy is achieved by:

- Development of a sales and distribution network Opsens Solutions has set up a network development strategy to increase its visibility in the various markets;
- Target Market Potential markets for Opsens Solutions' technology are very broad—targeting only specific markets such as semiconductors, aerospace and laboratories. These are markets where Opsens' products offer unique advantages over its competitors;
- Innovation Opsens Solutions continually invests in innovations of its products, so they can offer unique advantages over its competitors. For example, the Company's optical strain and pressure sensors have received the attention of major players in the aerospace industry because they require no shielding or grounding and because of their ease of deployment.

#### NON-IFRS FINANCIAL MEASURES - 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 (revenues), 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)	<b>Three-month period ended February 28, 2019</b>	<b>Three-month period ended February 28, 2018</b>	<b>Six-month period ended February 28, 2019</b>	<b>Six -month period ended February 28, 2018</b>
	\$	\$	\$	\$
Net earnings (loss)	(374)	(1,267)	719	(2,203)
Financial expenses (revenues)	27	10	(33)	(15)
Amortization of property, plant and equipment	199	205	400	402
Amortization of intangible assets	20	23	44	49
Change in fair value of embedded derivative	-	-	-	501
<b>EBITDAC</b>	<b>(128)</b>	<b>(1,029)</b>	<b>1,130</b>	<b>(1,266)</b>
Stock-based compensation costs	99	150	209	343
<b>EBITDACO</b>	<b>(29)</b>	<b>(879)</b>	<b>1,339</b>	<b>(923)</b>

The positive variances of EBITDACO for the three-month and six-month periods ended February 28, 2019 are mainly explained by the increase in sales in the medical and industrial sectors and by licensing revenue related to the Abiomed agreement. This was partly offset by higher administrative, sales and marketing and research and development expenses as explained further below.

**SELECTED CONSOLIDATED FINANCIAL DATA**

(In thousands of Canadian dollars, except for information per share)	Three-month period ended February 28, 2019	Three-month period ended February 28, 2018	Six -month period ended February 28, 2019	Six -month period ended February 28, 2018
	\$	\$	\$	\$
<b>Revenues</b>				
Sales				
Medical	6,548	4,927	12,755	9,637
Industrial	707	425	1,301	1,050
	7,255	5,352	14,056	10,687
Licensing agreement	664	90	2,966	1,119
	7,919	5,442	17,022	11,806
Cost of sales	3,361	2,649	6,823	5,677
<b>Gross margin</b>	4,558	2,793	10,199	6,129
Gross margin percentage	58%	51%	60%	52%
<b>Expenses (revenues)</b>				
Administrative	1,126	942	2,238	1,671
Sales and marketing	2,460	2,234	4,883	4,430
Research and development	1,319	874	2,392	1,745
Financial expenses (revenues)	27	10	(33)	(15)
Change in fair value of embedded derivative	-	-	-	501
	4,932	4,060	9,480	8,332
<b>Net earnings (loss) and comprehensive earnings (loss)</b>	(374)	(1,267)	719	(2,203)
<b>Basic and diluted net earnings (loss) per share</b>	0.00	(0.01)	0.01	(0.03)

**Revenues**

The Company reported revenues of \$7,919,000 for the three-month period ended February 28, 2019 compared to revenues of \$5,442,000 for the corresponding period in 2018, an increase of \$2,477,000 or 46%.

Sales in the medical sector totalled \$6,548,000 for the three-month period ended February 28, 2019 compared to sales of \$4,927,000 for the same period in 2018. The increase in medical sector revenues is mainly explained by a higher number of OptoWire shipped when compared to the same period last year. FFR sales totalled \$4,859,000 for the three-month period ended February 28, 2019, an increase of \$1,546,000 compared to the \$3,313,000 reported for the same period last year.

Sales in the industrial sector totalled \$707,000 for the three-month period ended February 28, 2019 compared to sales of \$425,000 for the same period in 2018. The increase is mostly explained by higher volume of orders compared to the same period last year.

For the three-month period ended February 28, 2019 and 2018, pricing fluctuations did not have a significant impact on revenues.

The Company's revenues are generated in U.S. dollars, Canadian dollars, Euros and British pounds; fluctuations in the exchange rate affect revenues and net earnings (loss). For the three-month period ended February 28, 2019, revenues were positively affected by \$332,000 compared to the same period last year (sales were negatively impacted by \$102,000 for the three-month period ended February 28, 2018).

As at February 28, 2019, Opsens' total backlog of orders amounted to \$9,428,000 (\$2,931,000 as at February 28, 2018).

### **Gross Margin**

Information and analysis in this section do not take into consideration licensing revenues (\$664,000 for the three-month period ended February 28, 2019 and \$90,000 for the three-month period ended February 28, 2018, respectively).

Gross margin was \$3,894,000 for the three-month period ended February 28, 2019 compared to \$2,703,000 for the same period last year. The gross margin percentage increased from 51% for the three-month period ended February 28, 2018 to 54% for the three-month period ended February 28, 2019. The increase in gross margin is mainly explained by higher sales from our FFR medical products line, as previously explained. The increase in gross margin percentage reflects a higher sales volume and the related benefits of scale combined with enhanced productivity.

### **Administrative Expenses**

Administrative expenses were \$1,126,000 and \$942,000, respectively, for the three-month period ended February 28, 2019 and 2018. The increase is mainly explained by higher headcount.

### **Sales and Marketing Expenses**

Sales and marketing expenses totalled \$2,460,000 for the three-month period ended February 28, 2019, an increase of \$226,000 over the \$2,234,000 reported during the same period in 2018. The increase is largely explained by higher commissions and subcontractors' expenses when compared to last year due to the expansion of Opsens' direct sales presence for its FFR products in the United States and EMEA. This was partly offset by a lower headcount and exposition and congress expenses.

### **Research and Development Expenses**

Research and development expenses totalled \$1,319,000 for the three-month period ended February 28, 2019, an increase of \$445,000 over the \$874,000 reported during the same period in 2018. The increase is mainly explained by higher headcount, supplies and subcontractors for our FFR activities.

### **Financial Expenses**

Financial expenses totalled \$27,000 for the three-month period ended February 28, 2019 compared to \$10,000 for the same period in 2018. The increase in financial expenses is mainly explained by a less favorable exchange rate resulting in a negative impact of \$18,000.

### **Net Loss**

As a result of the foregoing, net loss for the three-month period ended February 28, 2019 was \$374,000 compared to a net loss of 1,267,000 for the same period in 2018.

## CONSOLIDATED STATEMENTS OF FINANCIAL POSITION DATA

(In thousands of Canadian dollars)	As at February 28, 2019	As at August 31, 2018
	\$	\$
Current assets	20,670	19,785
Total assets	24,540	23,586
Current liabilities	3,789	3,438
Long-term liabilities	1,107	1,475
Shareholders' equity	19,644	18,673

Total assets as at February 28, 2019 were \$24,540,000 compared to \$23,586,000 as at August 31, 2018. The increase is mainly related to higher trade and other receivables of \$1,808,000 following the increase in revenues in the medical and industrial sectors. This is partly offset by lower inventory of \$755,000 and by lower cash and cash equivalent of \$543,000.

Current liabilities totalled \$3,789,000 as at February 28, 2019 compared to \$3,438,000 as at August 31, 2018. The increase is mainly explained by higher accounts payables and accrued liabilities of \$382,000.

Long-term liabilities totalled \$1,107,000 as at February 28, 2019 compared to \$1,475,000 as at August 31, 2018, a decrease of \$368,000. The decrease is mainly explained by a lower portion of long-term debt of \$320,000.

## SUMMARY OF CONSOLIDATED QUARTERLY RESULTS

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

(Unaudited, in thousands of Canadian dollars, except for information per share)	Three-month period ended February 28, 2019	Three-month period ended November 30, 2018	Three-month period ended August 31, 2018	Three-month period ended May 31, 2018
	\$	\$	\$	\$

Revenues	7,919	9,103	5,866	6,398
Net earnings (loss) for the period	(374)	1,092	(1,501)	(846)
Basic and diluted net earnings (loss) per share	0.00	0.01	(0.02)	(0.01)

(Unaudited, in thousands of Canadian dollars, except for information per share)	Three-month period ended February 28, 2018	Three-month period ended November 30, 2017	Three-month period ended August 31, 2017	Three-month period ended May 31, 2017
	\$	\$	\$	\$

Revenues	5,442	6,364	4,307	4,892
Net loss for the period	(1,267)	(936)	(1,153)	(1,842)
Basic and diluted net loss per share	(0.01)	(0.01)	(0.02)	(0.02)

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

## LIQUIDITY AND CAPITAL RESOURCES

As at February 28, 2019, the Company had cash and cash equivalents of \$10,343,000 compared to \$10,887,000 as at August 31, 2018. Of this amount as at February 28, 2019, \$10,116,000 was invested in highly-liquid, safe investments. As at February 28, 2019, Opsens had a working capital of \$16,880,000, compared to \$16,347,000 as at August 31, 2018. The increase in working capital is mainly related to higher trade and other receivables.

On February 27, 2019, Opsens announced that it has entered into a \$8,000,000 credit agreement (the “Agreement”) with CIBC Innovation Banking (CIBC). The Agreement consists of a \$7,000,000 term loan, set to mature in 60 months with no principal payment for a 24 month period following the signature of the Agreement, bearing interest at prime rate plus 2.00% per annum and of a \$1,000,000 revolving operating credit margin bearing interest at prime rate plus 1.00%, set to mature in one year and that may be renewed on an annual basis. The disbursement of the \$7,000,000 term loan occurred March 1, 2019 and the revolving operating credit was also available at that time. Deferred financing fees related to the Agreement includes professional fees and miscellaneous fees of \$87,468. Under this Agreement, the Company is subject to certain covenants, which were met as of the date of this MD&A.

On February 6, 2018, the Company entered into a loan agreement of \$213,840, net of transaction costs of \$2,160, with Investissement Québec. This loan bears interest at prime rate plus 0.25%, is payable in monthly instalments of \$4,500, and will be maturing in February 2022. 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 ratio, which were met as of the date of this MD&A.

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. This line of credit was closed following the opening of the revolving operating credit margin with CIBC.

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 will largely depend on the rate of revenue growth in upcoming quarters.

## SUMMARY OF CASH FLOWS

(In thousands of Canadian dollars)	Three-month period ended	Three-month period ended	Six -month period ended	Six -month period ended
	February 28, 2019	February 28, 2018	February 28, 2019	February 28, 2018
	\$	\$	\$	\$
Operating activities	(965)	(1,371)	207	(409)
Investing activities	(154)	(201)	(440)	(270)
Financing activities	(236)	166	(320)	72
Effect of foreign exchange rate changes on cash and cash equivalents	(3)	(6)	10	32
<b>Net change in cash and cash equivalents</b>	<b>(1,358)</b>	<b>(1,412)</b>	<b>(543)</b>	<b>(575)</b>

### Operating Activities

Cash flows used by our operating activities for the three-month period ended February 28, 2019 were \$965,000 compared to \$1,371,000 for the same period last year. The decrease in 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 change in non-cash operating working capital items mostly related to prepaid expenses and accounts payable and accrued liabilities.

For the six-month period ended February 28, 2019, cash flows generated by our operating activities were \$207,000 compared cash flows used of \$409,000 for the same period last year. The increase in cash flows generated 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 three-month period ended February 28, 2019, cash flows used by our investing activities reached \$154,000 compared to \$201,000 for the three-month period ended February 28, 2018. The decrease is mainly explained by less acquisition of property, plant and equipment during the three-month period ended February 28, 2019 compared to last year.

For the six-month period ended February 28, 2019, cash flows used by our investing activities reached \$440,000 compared to \$270,000 for the six-month period ended February 28, 2018. The decrease is mainly explained by the fact that we had cashed a tax credit for the acquisition of property, plant and equipment during the six months period ended February 28, 2018.

### Financing Activities

For the three-month period ended February 28, 2019, cash flows used by financing activities reached \$236,000 compared to cash flows generated of \$166,000 for the three-month period ended February 28, 2018. The variation is mainly explained by the fact that we have no new long-term debt and no proceeds from issuance of shares during the three-month period ended February 28, 2019 compared to last year.

For the six-month period ended February 28, 2019, cash flows used by our financing activities reached \$320,000 compared to cash flows generated of \$72,000 for the six-month period ended February 28, 2018. The variation is mainly explained by the fact that we have no new long-term debt and less proceeds from issuance of shares during the six-month period ended February 28, 2019 compared to last year.

## **SUBSEQUENT EVENTS**

On February 27, 2019, Opsens announced that it has entered into a \$8,000,000 credit agreement (the “Agreement”) with CIBC Innovation Banking (CIBC).

The Agreement consists of a \$7,000,000 term loan, set to mature in 60 months with no principal payment for a 24 months period following the signature of the Agreement, bearing interest at prime rate plus 2.00% per annum and of a \$1,000,000 revolving operating credit margin bearing interest at prime rate plus 1.00%, set to mature in one year and that may be renewed on an annual basis.

The disbursement of the \$7,000,000 term loan occurred March 1, 2019 and the revolving operating credit was also available at that time.

Deferred financing fees related to the Agreement includes professional fees and miscellaneous fees of \$87,468.

On March 1, 2019, the Board of Directors authorized the grant of 1,300,000 stock options to an Officer and an executive of the Company, as provided by Opsens’ stock options plan adopted by shareholders on January 24, 2017.

## INFORMATION BY REPORTABLE SEGMENTS

### *Segmented Information*

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 but also supplies a wide range of miniature optical sensors to measure pressure and temperature to be used in a wide range of applications that can be integrated in others medical devices. This also includes licensing revenue related to its optical sensor technology.

**Industrial segment:** In this segment, Opsens develops, manufactures and installs innovative fibre optic sensing solutions for critical and 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 business and are measured at the exchange amount, which approximates prevailing prices in the markets.

	Three-month period ended February 28, 2019			Three-month period ended February 28, 2018		
	Medical	Industrial	Total	Medical	Industrial	Total
	\$	\$	\$	\$	\$	\$
External sales	7,212,305	706,581	7,918,886	5,017,001	425,025	5,442,026
Internal sales	-	24,410	24,410	-	24,206	24,206
Gross margin	4,084,255	473,281	4,557,536	2,557,491	235,466	2,792,957
Amortization of property, plant and equipment	186,823	12,384	199,207	185,437	19,353	204,790
Amortization of intangible assets	16,615	3,673	20,288	19,254	3,702	22,956
Financial expenses (revenues)	(39,918)	66,605	26,687	(60,283)	70,906	10,623
Net earnings (loss)	(385,358)	11,525	(373,833)	(1,089,832)	(177,387)	(1,267,219)
Acquisition of property, plant and equipment	95,845	29,123	124,968	83,138	-	83,138
Additions to intangible assets	36,888	5,155	42,043	11,744	300	12,044
Segment assets	22,915,392	1,624,918	24,540,310	24,155,056	1,487,312	25,642,368
Segment liabilities	4,595,642	300,755	4,896,397	4,715,007	214,729	4,929,736

	Six-month period ended February 28, 2019			Six-month period ended February 28, 2018		
	Medical	Industrial	Total	Medical	Industrial	Total
	\$	\$	\$	\$	\$	\$
External sales	15,721,021	1,300,603	17,021,624	10,755,979	1,049,650	11,805,629
Internal sales	-	51,351	51,351	-	66,450	66,450
Gross margin	9,347,354	851,372	10,198,726	5,470,938	658,223	6,129,161
Depreciation of property, plant and equipment	374,381	25,840	400,221	363,152	38,888	402,040
Amortization of intangible assets	36,212	7,488	43,700	41,623	7,393	49,016
Financial expenses (revenues)	(164,548)	131,742	(32,806)	(139,320)	124,134	(15,186)
Change in fair value of embedded derivative	-	-	-	501,250	-	501,250
Net earnings (loss)	730,198	(11,717)	718,481	(2,168,325)	(34,458)	(2,202,783)
Acquisition of property, plant and equipment	333,757	38,328	372,085	365,510	2,827	368,337
Additions to intangible assets	68,920	5,375	74,295	29,360	300	29,660
Segment assets	22,915,392	1,624,918	24,540,310	24,155,056	1,487,312	25,642,368
Segment liabilities	4,595,642	300,755	4,896,397	4,715,007	214,729	4,929,736

*Geographic sector's information*

	Three-month periods ended February 28,		Six-month periods ended February 28,	
	2019	2018	2019	2018
	\$	\$	\$	\$
Revenues per geographic sector				
United States	3,255,900	2,196,001	7,927,110	5,069,076
Japan	2,578,814	1,284,130	5,519,007	2,653,234
Canada	503,367	475,636	1,019,191	972,027
Others*	1,580,805	1,486,259	2,556,316	3,111,292
	7,918,886	5,442,026	17,021,624	11,805,629

\* 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 three-month period ended February 28, 2019, revenues from two clients represented individually more than 10% of the total revenues of the Company, i.e. approximately 32% (medical's reportable segment) and 25% (medical's reportable segment).

During the three-month period ended February 28, 2018, revenues from two clients represented individually more than 10% of the total revenues of the Company, i.e. approximately 23% (medical's reportable segment) and 23% (medical's reportable segment).

During the six-month period ended February 28, 2019, revenues from two clients represented individually more than 10% of the total revenues of the Company, i.e. approximately 32% (medical's reportable segment) and 31% (medical's reportable segment).

During the six-month period ended February 28, 2018, revenues from two clients represented individually more than 10% of the total revenues of the Company, i.e. approximately 27% (medical's reportable segment) and 22% (medical's reportable segment).

### *Medical Segment*

Information and analysis in this section for revenue and gross margin do not take into consideration licensing revenues (\$664,000 for the three-month period ended February 28, 2019 and \$90,000 for the three-month period ended February 28, 2018, respectively).

For the three-month period ended February 28, 2019, sales from medical segment were \$6,548,000 compared to \$4,927,000 for the three-month period ended February 28, 2018, an increase of \$1,621,000. The increase is mainly explained by higher FFR sales of \$1,546,000.

Gross margin was \$3,421,000 for the three-month period ended February 28, 2019 compared to \$2,467,000 for the three-month period ended February 28, 2018, an increase of \$954,000. The gross margin percentage for the three-month period ended February 28, 2019 was 52% compared to 50% for the three-month period ended February 28, 2018. The increase in gross margin is mainly explained by higher sales from our FFR products combined with a decrease in our production cost. The increase in gross margin percentage reflects higher sales volume and the related economies of scale combined with enhanced productivity.

Net loss for the medical segment was \$385,000 for the three-month period ended February 28, 2019 compared to \$1,090,000 for the same period last year. The decrease in net loss is mainly explained by higher sales and the improvement of the gross margin, partly offset by higher administrative, sales and marketing and research and development expenses, as explained previously. Also, the increase in net earnings is explained by the recognition of higher non-recurring revenues of related to the achievement of a technical milestone during the quarter.

Working capital for the medical segment as at February 28, 2019 was \$15,831,000 compared to \$15,183,000 as at August 31, 2018. The increase of \$648,000 is mainly explained by higher trade and other receivables of \$1,879,000, partly offset by lower inventory of \$733,000 and lower cash and cash equivalent of \$533,000.

### *Industrial Segment*

For the three-month period ended February 28, 2019, external sales from industrial segment were \$707,000 compared to \$425,000 for the three-month period ended February 28, 2018, an increase of \$282,000. This increase is mostly explained by higher volume of orders compared to the same period last year, as explained previously.

Gross margin was \$473,000 for the three-month period ended February 28, 2019 compared to \$235,000 for the same period in 2018, an increase of \$238,000. Gross margin percentage increase from 55% for the three-month period ended February 28, 2018 to 67% for the three-month period ended February 28, 2019. The increase in gross margin percentage is mainly explained by higher sales, as explained previously.

Net earnings for the industrial segment was \$12,000 for the three-month period ended February 28, 2019 compared to a net loss of \$177,000 for the three-month period ended February 28, 2018. The increase in net earnings is mainly explained by a significant increase in sales.

Working capital for the industrial segment as at February 28, 2019 was stable at \$1,133,000 compared to \$1,164,000 as at August 31, 2018.

## **SIX-MONTH PERIODS ENDED FEBRUARY 28, 2019 AND 2018**

### **Revenues**

Revenues totalled \$17,022,000 for the six-month period ended February 28, 2019 compared to revenues of \$11,806,000 for the corresponding period in 2018, an increase of \$5,216,000 or 44%. The increase is mainly explained by higher sales in medical segment.

### **Gross Margin**

Information and analysis in this section do not take into consideration licensing revenues (\$2,966,000 for the six-month period ended February 28, 2019 and \$1,119,000 for the six-month period ended February 28, 2018, respectively).

Gross margin was \$7,233,000 for the six-month period ended February 28, 2019 compared to \$5,011,000 for the same period last year. The gross margin percentage increased from 47% for the six-month period ended February 28, 2018 to 51% for the six-month period ended February 28, 2019. The increase in gross margin is mainly explained by higher sales from our FFR medical products line. The increase in gross margin percentage reflects higher sales volume and the related economies of scale combined with enhanced productivity.

### **Administrative Expenses**

Administrative expenses were \$2,238,000 and \$1,671,000, respectively, for the six-month period ended February 28, 2019 and 2018. The increase is mainly explained by higher headcount and by the fact that we reversed an allowance for doubtful accounts related to a client in the industrial sector during the same period last year.

### **Sales and Marketing Expenses**

Sales and marketing expenses totalled \$4,883,000 for the six-month period ended February 28, 2019, an increase of \$453,000 over the \$4,430,000 reported during the same period in 2018. The increase is largely explained by higher commissions and subcontractors' expenses when compared to last year due to the expansion of Opsens' direct sales presence for its FFR products in the United States and EMEA. This was partly offset by a lower headcount.

### **Research and Development Expenses**

Research and development expenses totalled \$2,392,000 for the six-month period ended February 28, 2019, an increase of \$647,000 over the \$1,745,000 reported during the same period in 2018. The increase is mainly explained by higher headcount, supplies and subcontractors for our FFR activities.

### **Financial Revenues**

Financial revenues totalled \$33,000 for the six-month period ended February 28, 2019 compared to \$15,000 for the same period in 2018. The increase in financial revenues is mainly explained by lower interest on long-term debt of \$23,000.

### Change in Fair Value of the Embedded Derivative

The change in fair value of embedded derivative comes from the change in fair market value of the conversion option component of the convertible debenture. The convertible debenture contained a cash settlement feature, which under IAS 32, *Financial Instruments: Presentation*, was accounted for as a compound financial 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 were measured at fair value on initial recognition. The debt component was subsequently accounted for at amortized cost using the effective interest rate method. The embedded derivative was subsequently measured at fair value at each reporting date with gains and losses in fair value recognized through profit or loss. During the six-month period ended February 28, 2018, an expense of \$501,000 was recorded in the consolidated statements of loss and comprehensive loss. On November 16, 2017 the holder of the debenture exercised its conversion option.

### Net earnings (loss)

As a result of the foregoing, net earnings for the six-month period ended February 28, 2019 was \$719,000 compared to a net loss of 2,203,000 for the same period in 2018.

### INFORMATION ON SHARE CAPITAL

For the six-month period ended February 28, 2019, the Company granted to some employees a total of 530,000 stock options with an average exercise price of \$0.83, cancelled 523,750 stock options with an exercise price of \$1.09, whereas 100,000 stock options with an average exercise price of \$0.44 were exercised, and 471,250 stock options with an exercise price of \$0.79 expired.

For the six-month period ended February 28, 2018, the Company granted to some employees, Directors and consultant a total of 564,500 stock options with an average exercise price of \$1.18, cancelled 722,125 stock options with an exercise price of \$1.41, 608,250 stock options with an average exercise price of \$0.27 were exercised and 151,250 stock options with an exercise price of \$0.68 expired.

For the six-month period ended February 28, 2018, 2,380,500 warrants with an average exercise price of \$1.55 expired.

As at April 10, 2019, the following components of shareholders' equity are outstanding:

Common shares	89,968,817
Stock options	6,423,750
Securities on a fully diluted basis	96,392,567

No dividend was declared per share for each share class.

### 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. Considering the employment market in Canada, the U.S. and Europe, 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 creating 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 to align shareholders' interest with corporate executives' interest. This long-term vision stimulates innovation and the development of recurring revenues.

#### **CHANGES IN INTERNAL CONTROL OVER FINANCIAL REPORTING (ICFR)**

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 and the Chief Financial Officer that, among other things, report on the design of disclosure controls and procedures and the design of internal controls over financial reporting. There have been no changes in the Corporation's ICFR during the three-month period ended February 28, 2019 that have materially affected or are reasonably likely materially affecting its ICFR.

#### **RISK FACTORS**

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 February 28, 2019, 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*

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April 10, 2019