

## **MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS FOR THE THREE-MONTH AND NINE-MONTH PERIOD ENDED MAY 31, 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 nine-month period ended May 31, 2019 in comparison with the corresponding period ended May 31, 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 July 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 July 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 potential to extend to other physiological measurement. 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 ten patents and has two 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. 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 and dPR represent 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 (2025).

(1) Opsens FFR Market Calculations based on GRAND VIEW RESEARCH (Feb 2019), Fractional Flow Reserve Market Size, Share & Trends Analysis Report by Application (Multi-Vessel CAD, Single-Vessel CAD), By Product (Monitoring Systems, Guidewires), By Region, And Segment Forecasts, 2019 - 2025

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

- 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);
- 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.

## COMPETITION

**In the medical sector**, the FFR and dPR measurement market have 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 and dPR, 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 and dPR 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, Asia and the Middle East. 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 low-drift 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 May 31, 2019</b>	<b>Three-month period ended May 31, 2018</b>	<b>Nine-month period ended May 31, 2019</b>	<b>Nine -month period ended May 31, 2018</b>
	\$	\$	\$	\$
Net loss	(1,053)	(846)	(334)	(3,049)
Financial expenses (revenues)	30	(3)	(3)	(18)
Depreciation of property, plant and equipment	197	200	597	602
Amortization of intangible assets	22	26	66	75
Change in fair value of embedded derivative	-	-	-	501
<b>EBITDAC</b>	<b>(804)</b>	<b>(623)</b>	<b>326</b>	<b>(1,889)</b>
Stock-based compensation costs	160	147	368	490
<b>EBITDACO</b>	<b>(644)</b>	<b>(476)</b>	<b>694</b>	<b>(1,399)</b>

The negative variances of EBITDACO for the three-month periods ended May 31, 2019 are mainly explained by the increase in net loss related higher administrative, sales and marketing and research and development expenses as explained further below. This was partly offset mainly by an increased in sales in the medical.

The positive variances of EBITDACO for the nine-month ended May 31, 2019 are mainly explained by the increase in sales all sectors and by higher 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)	<b>Three-month period ended May 31, 2019</b>	<b>Three-month period ended May 31, 2018</b>	<b>Nine -month period ended May 31, 2019</b>	<b>Nine -month period ended May 31, 2018</b>
	\$	\$	\$	\$
<b>Revenues</b>				
Sales				
Medical	7,155	5,314	19,910	14,951
Industrial	371	337	1,672	1,387
	<u>7,526</u>	<u>5,651</u>	<u>21,582</u>	<u>16,338</u>
Licensing agreement	337	747	3,302	1,865
	<u>7,863</u>	<u>6,398</u>	<u>24,884</u>	<u>18,203</u>
Cost of sales	3,339	2,809	10,162	8,485
<b>Gross margin</b>	<u>4,524</u>	<u>3,589</u>	<u>14,722</u>	<u>9,718</u>
Gross margin percentage	58%	56%	59%	53%
<b>Expenses (revenues)</b>				
Administrative	1,195	1,073	3,433	2,743
Sales and marketing	3,059	2,460	7,941	6,891
Research and development	1,293	905	3,685	2,650
Financial expenses (revenues)	30	(3)	(3)	(18)
Change in fair value of embedded derivative	-	-	-	501
	<u>5,577</u>	<u>4,435</u>	<u>15,056</u>	<u>12,767</u>
<b>Net loss and comprehensive loss</b>	<u>(1,053)</u>	<u>(846)</u>	<u>(334)</u>	<u>(3,049)</u>
<b>Basic and diluted net loss per share</b>	<u>(0.01)</u>	<u>(0.01)</u>	<u>(0.00)</u>	<u>(0.03)</u>

**Revenues**

The Company reported revenues of \$7,863,000 for the three-month period ended May 31, 2019 compared to revenues of \$6,398,000 for the corresponding period in 2018, an increase of \$1,465,000 or 23%.

Sales in the medical sector totalled \$7,155,000 for the three-month period ended May 31, 2019 compared to sales of \$5,314,000 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 \$5,153,000 for the three-month period ended May 31, 2019, an increase of \$1,645,000 compared to the \$3,508,000 reported for the same period last year.

Sales in the industrial sector totalled \$371,000 for the three-month period ended May 31, 2019 compared to sales of \$337,000 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 May 31, 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 May 31, 2019, revenues were positively affected by \$193,000 compared to the same period last year (sales were negatively impacted by \$163,000 for the three-month period ended May 31, 2018).

As at May 31, 2019, Opsens' total backlog of orders amounted to \$8,559,000 (\$2,767,000 as at May 31, 2018).

### **Gross Margin**

Information and analysis in this section do not take into consideration licensing revenues (\$337,000 for the three-month period ended May 31, 2019 and \$747,000 for the three-month period ended May 31, 2018, respectively).

Gross margin was \$4,187,000 for the three-month period ended May 31, 2019 compared to \$2,842,000 for the same period last year. The gross margin percentage increased from 50% for the three-month period ended May 31, 2018 to 56% for the three-month period ended May 31, 2019. The increase in gross margin is mainly explained by higher sales from our FFR medical products line combine with a decrease in our production cost. 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 \$1,195,000 and \$1,073,000, respectively, for the three-month period ended May 31, 2019 and 2018. The increase is mainly explained by higher headcount.

### **Sales and Marketing Expenses**

Sales and marketing expenses totalled \$3,059,000 for the three-month period ended May 31, 2019, an increase of \$599,000 over the \$2,460,000 reported during the same period in 2018. The increase is largely explained by higher commissions, tradeshow, publicity and traveling expenses when compared to last year due to the expansion of Opsens' sales presence for its FFR products in the United States and EMEA.

### **Research and Development Expenses**

Research and development expenses totalled \$1,293,000 for the three-month period ended May 31, 2019, an increase of \$388,000 over the \$905,000 reported during the same period in 2018. The increase is mainly explained by higher headcount and subcontractors fees for our development activities. Also, the increase is explained by a lower tax credit.

### **Financial Expenses (revenues)**

Financial expenses totalled \$30,000 for the three-month period ended May 31, 2019 compared to financial revenues of \$3,000 for the same period in 2018. The increase in financial expenses is mainly explained by a higher long-term debt expenses of \$101,000. This is partly offset by more favorable exchange rate resulting in a positive impact of \$64,000.

### **Net Loss**

As a result of the foregoing, net loss for the three-month period ended May 31, 2019 was \$1,053,000 compared to \$846,000 for the same period in 2018.

## CONSOLIDATED STATEMENTS OF FINANCIAL POSITION DATA

(In thousands of Canadian dollars)	As at May 31, 2019	As at August 31, 2018
	\$	\$
Current assets	27,401	19,785
Total assets	31,320	23,586
Current liabilities	4,572	3,438
Long-term liabilities	7,913	1,475
Shareholders' equity	18,835	18,673

Total assets as at May 31, 2019 were \$31,320,000 compared to \$23,586,000 as at August 31, 2018. The increase is mainly related to higher cash and cash equivalent of \$6,218,000 related to the CIBC Innovation Banking (CIBC) debt financing and by higher trade and other receivables of \$1,476,000 following the increase in revenues in the medical sector.

Current liabilities totalled \$4,572,000 as at May 31, 2019 compared to \$3,438,000 as at August 31, 2018. The increase is mainly explained by higher accounts payables and accrued liabilities of \$1,234,000 due to the increase in sales in the medical sector.

Long-term liabilities totalled \$7,913,000 as at May 31, 2019 compared to \$1,475,000 as at August 31, 2018, an increase of \$6,438,000. The increase is mainly explained by a higher long-term debt of \$6,510,000 following the disbursement of the CIBC term loan.

## 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 May 31, 2019	Three-month period ended February 28, 2019	Three-month period ended November 30, 2018	Three-month period ended August 31, 2018
	\$	\$	\$	\$

Revenues	7,863	7,919	9,103	5,866
Net earnings (loss) for the period	(1,053)	(374)	1,092	(1,501)
Basic and diluted loss per share	(0.01)	(0.00)	0.01	(0.02)

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

Revenues	6,398	5,442	6,364	4,307
Net loss for the period	(846)	(1,267)	(936)	(1,153)
Basic and diluted net loss per share	(0.01)	(0.01)	(0.01)	(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 May 31, 2019, the Company had cash and cash equivalents of \$17,104,000 compared to \$10,887,000 as at August 31, 2018. Of this amount as at May 31, 2019, \$14,056,000 was invested in highly-liquid, safe investments. As at May 31, 2019, Opsens had a working capital of \$22,829,000, compared to \$16,347,000 as at August 31, 2018. The increase in working capital is mainly related to higher cash and cash equivalent and by 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. 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.

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	Three-month	Nine -month	Nine -month
	period ended	period ended	period ended	period ended
	May 31, 2019	May 31, 2018	May 31, 2019	May 31, 2018
	\$	\$	\$	\$
Operating activities	381	(146)	588	(555)
Investing activities	(308)	(138)	(748)	(407)
Financing activities	6,665	(99)	6,345	(27)
Effect of foreign exchange rate changes on cash and cash equivalents	23	9	33	40
<b>Net change in cash and cash equivalents</b>	<b>6,761</b>	<b>(374)</b>	<b>6,218</b>	<b>(949)</b>

### Operating Activities

For the three-month period ended May 31, 2019, cash flows generated by our operating activities were \$381,000 compared to cash flows used of \$146,000 for the same period last year. The increase in cash flows generated by our operating activities is explained by a positive variance in non-cash operating working capital items mostly related to trade and other receivables and accounts payable and accrued liabilities. This is partly offset by a negative variance in changes in non-cash operating working capital items mostly related to inventory.

For the nine-month period ended May 31, 2019, cash flows generated by our operating activities were \$588,000 compared cash flows used of \$555,000 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 related to the increase in sales in all sectors.

### Investing Activities

For the three-month period ended May 31, 2019, cash flows used by our investing activities reached \$308,000 compared to \$138,000 for the three-month period ended May 31, 2018. The increase in cash flows used is mainly explained by higher acquisition of intangible assets for the medical sector during the three-month period ended May 31, 2019 compared to last year.

For the nine-month period ended May 31, 2019, cash flows used by our investing activities reached \$748,000 compared to \$407,000 for the nine-month period ended May 31, 2018. The increase in cash flows used is mainly explained by higher acquisition of intangible assets for the medical sector and by the fact that we cashed a tax credit for the acquisition of property, plant and equipment during the nine months period ended May 31, 2018.

### Financing Activities

For the three-month period ended May 31, 2019, cash flows generated by financing activities reached \$6,665,000 compared to cash flows used of \$99,000 for the three-month period ended May 31, 2018. The variation is mainly explained by the fact that we signed a credit agreement and the disbursement occurred on March 1, 2019.

For the nine-month period ended May 31, 2019, cash flows generated by financing activities reached \$6,345,000 compared to cash flows used of \$27,000 for the three-month period ended May 31, 2018. The variation is mainly explained by the fact that we signed a credit agreement and the disbursement occurred on March 1, 2019.

## 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 physiological measurement such as Fractional Flow Reserve (FFR) and dPR in the interventional cardiology market 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 periods ended May 31, 2019			Three-month periods ended May 31, 2018		
	Medical	Industrial	Total	Medical	Industrial	Total
	\$	\$	\$	\$	\$	\$
External sales	7,491,390	371,369	7,862,759	6,060,259	337,447	6,397,706
Internal sales	-	5,483	5,483	-	36,101	36,101
Gross margin	4,362,401	161,180	4,523,581	3,433,641	155,116	3,588,757
Depreciation of property, plant and equipment	186,078	10,750	196,828	182,493	17,892	200,385
Amortization of intangible assets	18,571	3,792	22,363	21,717	3,894	25,611
Financial expenses (revenues)	(44,381)	73,946	29,565	(78,994)	76,113	(2,881)
Net earnings (loss)	(780,276)	(272,370)	(1,052,646)	(564,885)	(281,604)	(846,489)
Acquisition of property, plant and equipment	120,575	4,822	125,397	130,324	43,603	173,927
Additions to intangible assets	230,004	-	230,004	29,690	18,041	47,731
Segment assets	29,579,590	1,740,695	31,320,285	23,829,740	1,516,210	25,345,950
Segment liabilities	11,991,711	494,046	12,485,757	4,971,992	333,069	5,305,061

	Nine-month periods ended May 31, 2019			Nine-month periods ended May 31, 2018		
	Medical	Industrial	Total	Medical	Industrial	Total
	\$	\$	\$	\$	\$	\$
External sales	23,212,411	1,671,972	24,884,383	16,816,238	1,387,097	18,203,335
Internal sales	-	56,834	56,834	-	102,551	102,551
Gross margin	13,709,755	1,012,552	14,722,307	8,904,579	813,339	9,717,918
Depreciation of property, plant and equipment	560,459	36,590	597,049	545,645	56,780	602,425
Amortization of intangible assets	54,783	11,280	66,063	63,340	11,287	74,627
Financial expenses (revenues)	(208,929)	205,688	(3,241)	(218,314)	200,247	(18,067)
Change in fair value of embedded derivative	-	-	-	501,250	-	501,250
Net earnings (loss)	(50,078)	(284,087)	(334,165)	(2,733,210)	(316,062)	(3,049,272)
Acquisition of property, plant and equipment	454,332	43,150	497,482	495,834	46,431	542,265
Additions to intangible assets	298,924	5,375	304,299	59,050	18,340	77,390
Segment assets	29,579,590	1,740,695	31,320,285	23,829,740	1,516,210	25,345,950
Segment liabilities	11,991,711	494,046	12,485,757	4,971,992	333,069	5,305,061

*Geographic sector's information*

	Three-month periods ended May 31,		Nine-month periods ended May 31,	
	2019	2018	2019	2018
	\$	\$	\$	\$
Revenues per geographic sector				
United States	3,202,265	3,294,574	11,129,375	8,363,650
Japan	2,320,851	1,527,536	7,839,858	4,180,769
Canada	689,397	496,910	1,708,588	1,468,938
Others*	1,650,246	1,078,686	4,206,562	4,189,978
	7,862,759	6,397,706	24,884,383	18,203,335

\* 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 May 31, 2019, revenues from two clients represented individually more than 10% of the total revenues of the Company, i.e. approximately 31% (medical's reportable segment) and 23% (medical's reportable segment).

During the three-month period ended May 31, 2018, revenues from two clients represented individually more than 10% of the total revenues of the Company, i.e. approximately 33% (medical's reportable segment) and 24% (medical's reportable segment).

During the nine-month period ended May 31, 2019, revenues from two clients represented individually more than 10% of the total revenues of the Company, i.e. approximately 36% (medical's reportable segment) and 19% (medical's reportable segment).

During the nine-month period ended May 31, 2018, revenues from two clients represented individually more than 10% of the total revenues of the Company, i.e. approximately 29% (medical's reportable segment) and 23% (medical's reportable segment).

### *Medical Segment*

Information and analysis in this section for revenue and gross margin do not take into consideration licensing revenues (\$337,000 for the three-month period ended May 31, 2019 and \$747,000 for the three-month period ended May 31, 2018, respectively).

For the three-month period ended May 31, 2019, sales from medical segment were \$7,155,000 compared to \$5,314,000 for the three-month period ended May 31, 2018, an increase of \$1,841,000. The increase is mainly explained by higher FFR sales of \$1,645,000.

Gross margin was \$4,026,000 for the three-month period ended May 31, 2019 compared to \$2,687,000 for the three-month period ended May 31, 2018, an increase of \$1,339,000. The gross margin percentage for the three-month period ended May 31, 2019 was 56% compared to 51% for the three-month period ended May 31, 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 \$780,000 for the three-month period ended May 31, 2019 compared to \$565,000 for the same period last year. The increase in net loss is mainly explained by higher administrative, sales and marketing and research and development expenses, partly offset by an increase in gross margin, as explained previously.

Working capital for the medical segment as at May 31, 2019 was \$21,764,000 compared to \$15,183,000 as at August 31, 2018. The increase of \$6,581,000 is mainly explained by higher cash and cash equivalent of \$5,816,000 and by trade and other receivables of \$1,819,000, partly offset by higher accounts payable and accrued liabilities of \$1,069,000.

### *Industrial Segment*

For the three-month period ended May 31, 2019, external sales from industrial segment were \$371,000 compared to \$337,000 for the three-month period ended May 31, 2018, an increase of \$34,000. This increase is mostly explained by higher volume of orders compared to the same period last year, as explained previously.

Gross margin was \$161,000 for the three-month period ended May 31, 2019 compared to \$155,000 for the same period in 2018, an increase of \$6,000. Gross margin percentage was stable. It went from 42% for the three-month period ended May 31, 2018 to 43% for the three-month period ended May 31, 2019.

Net loss for the industrial segment was \$272,000 for the three-month period ended May 31, 2019 compared to \$282,000 for the three-month period ended May 31, 2018.

Working capital for the industrial segment as at May 31, 2019 was at \$1,064,000 compared to \$1,164,000 as at August 31, 2018. The decrease is mainly explained by higher deferred revenues of \$119,000.

## **NINE-MONTH PERIODS ENDED MAY 31, 2019 AND 2018**

### **Revenues**

Revenues totalled \$24,884,000 for the nine-month period ended May 31, 2019 compared to revenues of \$18,203,000 for the corresponding period in 2018, an increase of \$6,681,000 or 37%. The increase is mainly explained by higher sales in medical segment related to our FFR medical products line as explained previously.

### **Gross Margin**

Information and analysis in this section do not take into consideration licensing revenues (\$3,302,000 for the nine-month period ended May 31, 2019 and \$1,865,000 for the nine-month period ended May 31, 2018, respectively).

Gross margin was \$11,420,000 for the nine-month period ended May 31, 2019 compared to \$7,853,000 for the same period last year. The gross margin percentage increased from 48% for the nine-month period ended May 31, 2018 to 53% for the nine-month period ended May 31, 2019. The increase in gross margin is mainly explained by higher sales from our FFR medical products line combine 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.

### **Administrative Expenses**

Administrative expenses were \$3,433,000 and \$2,743,000, respectively, for the nine-month period ended May 31, 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 \$7,941,000 for the nine-month period ended May 31, 2019, an increase of \$1,050,000 over the \$6,891,000 reported during the same period in 2018. The increase is largely explained by higher commissions, tradeshow and consultants fees when compared to last year due to the expansion of Opsens' sales presence for its FFR products in the United States and EMEA.

### **Research and Development Expenses**

Research and development expenses totalled \$3,685,000 for the nine-month period ended May 31, 2019, an increase of \$1,035,000 over the \$2,650,000 reported during the same period in 2018. The increase is mainly explained by higher headcount, supplies and subcontractors for our development activities.

### **Financial Revenues**

Financial revenues totalled \$3,000 for the nine-month period ended May 31, 2019 compared to \$18,000 for the same period in 2018. The decrease in financial revenues is mainly explained by higher interest on long-term debt of \$79,000. This is partly offset by a more favorable exchange rate resulting in a positive impact of \$62,000.

### **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 nine-month period ended May 31, 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 loss**

As a result of the foregoing, net loss for the nine-month period ended May 31, 2019 was \$334,000 compared to 3,049,000 for the same period in 2018.

**INFORMATION ON SHARE CAPITAL**

For the nine-month period ended May 31, 2019, the Company granted to some employees and Directors a total of 2,556,000 stock options with an average exercise price of \$0.81, cancelled 538,250 stock options with an exercise price of \$1.08, whereas 211,500 stock options with an average exercise price of \$0.60 were exercised, and 599,250 stock options with an exercise price of \$0.79 expired.

For the nine-month period ended May 31, 2018, the Company granted to some employees, Directors and consultant a total of 1,339,500 stock options with an average exercise price of \$1.01, cancelled 1,232,750 stock options with an exercise price of \$1.26, 645,750 stock options with an average exercise price of \$0.30 were exercised and 360,375 stock options with an exercise price of \$1.13 expired.

For the nine-month period ended May 31, 2018, 2,380,500 warrants with an average exercise price of \$1.55 expired.

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

Common shares	90,110,317
Stock options	7,059,500
<u>Securities on a fully diluted basis</u>	<u>97,169,817</u>

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 May 31, 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 May 31, 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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July 10, 2019