

## **MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS FOR THE THREE-MONTH AND SIX-MONTH PERIOD ENDED FEBRUARY 28, 2018**

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, 2018 in comparison with the corresponding periods ended February 28, 2017. In this Management's Discussion and Analysis ("MD&A"), "Opsens", "the Company", "we", "us" and "our" mean Opsens Inc. and its subsidiary. This discussion should be read and interpreted in conjunction with the information contained in our annual consolidated financial statements for the years ended August 31, 2017 and 2016, which have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board. This document was prepared on April 11, 2018. All amounts are in Canadian dollars unless otherwise indicated.

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

Information contained in forward-looking statements is based upon certain material assumptions that were applied in drawing a conclusion or making a forecast or projection, including management's perceptions of historical trends, current conditions and expected future developments, as well as other considerations that are believed to be appropriate in the circumstances. The Company considers these assumptions to be reasonable based on information currently available to it, but cautions the reader that these assumptions regarding future events, many of which are beyond its control, may ultimately prove to be incorrect since they are subject to risks and uncertainties that affect the Company and its business. The forward-looking information set forth therein reflects the Company's expectations as of April 11, 2018 and is subject to change after such date. The Company disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, other than as required by law.

### **OVERVIEW**

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

Opsens holds 9 patents and 3 pending patents to protect its medical and industrial businesses.

**In the medical sector**, Opsens commercializes its OptoWire and OptoMonitor for the interventional cardiology. OptoWire provides cardiologists with a guidewire that offers optimal performance to navigate in coronary arteries and cross blockages with ease, while measuring intracoronary blood pressure. This procedure is called measurement of FFR.

Opsens received approval to commercialize the OptoWire and OptoMonitor in major markets like the U.S., Europe, Japan and Canada. These combined markets represent approximately 85% of the total worldwide FFR market products. Following these approvals Opsens is now present with direct sales force in the U.S. and Canada and with distributors in Europe (including Middle East) and Japan.

Opsens also supplies a wide range of miniature optical pressure sensors which is used in a wide range of applications and can be integrated in others medical devices.

**In the industrial sector,** Opsens' technology, expertise and products can serve several markets including aerospace, geotechnical, infrastructures, oil and gas, mining, laboratories and others. Opsens' broad portfolio of products and technologies can be adapted to measure various parameters in the most harshest conditions and provide significant advantages in terms of production optimization and reduced risk to the environment and health.

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

Recently, Opsens via its wholly owned subsidiary Opsens Solutions has received the first prize in the category "Best Innovative Product – Physics Measurements" in the Technological Awards Ranking of the magazine Mesures. This honor was bestowed upon Opsens during the 22nd edition of this event held in Paris.

### **FFR MARKET OPPORTUNITY**

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

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

### **INDUSTRIAL MARKET OPPORTUNITY**

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

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

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

## BUSINESS STRATEGY

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

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

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

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

(3) Per 60601-2-34 ed3

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

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

**NON-IFRS FINANCIAL MEASURE - EBITDACO**

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

**Reconciliation of EBITDACO to net loss**

(In thousands of Canadian dollars)	<b>Three-month period ended February 28, 2018</b>	<b>Three-month period ended February 28, 2017</b>	<b>Six-month period ended February 28, 2018</b>	<b>Six-month period ended February 28, 2017</b>
	\$	\$	\$	\$
Net loss	(1,267)	(1,001)	(2,203)	(3,542)
Financial expenses (revenues)	10	(29)	(15)	123
Depreciation of property, plant and equipment	205	171	402	349
Amortization of intangible assets	23	20	49	41
Change in fair value of embedded derivative	-	46	501	232
<b>EBITDAC</b>	<b>(1,029)</b>	<b>(793)</b>	<b>(1,266)</b>	<b>(2,797)</b>
Stock-based compensation costs	150	235	343	485
<b>EBITDACO</b>	<b>(879)</b>	<b>(558)</b>	<b>(923)</b>	<b>(2,312)</b>

The negative variance of EBITDACO for the three-month period ended February 28, 2018 when compared with last year is mainly explained by higher administrative expenses, sales and marketing expenses and research and development expenses as explained further below. This was partly offset by increased revenues in the medical sector.

The positive variance of EBITDACO for the six-month period ended February 28, 2018 when compared with last year is mainly explained by increased revenues in the medical and industrial sector. This was partly offset by higher sales and marketing and research and development expenses as explained further below. Also, the reversal of an allowance for doubtful account of \$107,000 recorded in the industrial sector positively impacted EBITDACO.

**SELECTED CONSOLIDATED FINANCIAL DATA**

(In thousands of Canadian dollars, except for information per share)	<b>Three-month period ended February 28, 2018</b>	<b>Three-month period ended February 28, 2017</b>	<b>Six-month period ended February 28, 2018</b>	<b>Six-month period ended February 28, 2017</b>
	\$	\$	\$	\$
<b>Revenues</b>				
Sales	5,352	3,710	10,687	7,363
Licensing	90	1,098	1,119	1,190
	<u>5,442</u>	<u>4,808</u>	<u>11,806</u>	<u>8,553</u>
Cost of sales	2,649	2,554	5,677	5,108
<b>Gross margin</b>	2,793	2,254	6,129	3,445
Gross margin percentage	51%	47%	52%	40%
<b>Expenses (incomes)</b>				
Administrative expenses	942	862	1,671	1,750
Sales and marketing expenses	2,234	1,562	4,430	3,332
R&D expenses	874	814	1,745	1,550
Financial expenses (revenues)	10	(29)	(15)	123
Change in fair value of embedded derivative	-	46	501	232
	<u>4,060</u>	<u>3,255</u>	<u>8,332</u>	<u>6,987</u>
<b>Net loss and comprehensive loss</b>	(1,267)	(1,001)	(2,203)	(3,542)
<b>Net loss per share - Basic and diluted</b>	(0.01)	(0.01)	(0.03)	(0.05)

**QUARTERS ENDED FEBRUARY 28, 2018 AND 2017**
**Revenues**

The Company reported revenues of \$5,442,000 for the three-month period ended February 28, 2018 compared with revenues of \$4,808,000 for the comparative period in 2017, an increase of \$634,000 or 13%.

Revenues in the medical sector totalled \$5,017,000 for the three-month period ended February 28, 2018 compared with revenues of \$4,365,000 for the same period in 2017 (which take into consideration licensing revenues arising from the Abiomed agreement of \$90,000 for the three-month period ended February 28, 2018 and 1,098,000 for the three-month period ended February 28, 2017, respectively). FFR revenues totalled \$3,313,000 for the three-month period ended February 28, 2018, an increase of \$196,000 over the \$3,117,000 reported for the same period last year. In FFR, the increase is mostly the result of a growth close to 300% in the United States. The FFR growth was offset by a temporary decline in FFR revenues in Japan due to real-time supply-chain improvements. The increase in revenues in the medical sector is also explained by higher other medical revenues of \$1,463,000 mainly related to the Abiomed products sales.

Revenues in the industrial sector are stable. For the three-month period ended February 28, 2018 they totalled \$425,000 compared with revenues of \$443,000 for the same period in 2017.

For the period ended February 28, 2018 and February 28, 2017, pricing fluctuations did not have a significant impact on revenues.

Given that a proportion of the Company's revenues is generated in U.S. dollars, Euros and British Pounds, fluctuations in the exchange rate affect revenues and net loss. For the three-month period February 28, 2018, sales were negatively affected by \$102,000 (sales were negatively affected by \$214,000 for the three-month period ended February 28, 2017).

As of February 28, 2018, Opsens' total backlog of orders amounted to \$2,931,000 (\$3,864,000 as at February 28, 2017). Significant efforts are being made to increase the backlog and expand the customer base. In addition, the Company will benefit from increase revenues in the medical sector.

### **Gross margin**

Information and analysis in this section do not take into consideration licensing revenues arising from the Abiomed agreement (\$90,000 for the three-month period ended February 28, 2018 and 1,098,000 for the three-month period ended February 28, 2017, respectively).

Gross margin was \$2,703,000 for the three-month period ended February 28, 2018 compared with \$1,156,000 for the same period last year. The gross margin percentage increased from 31% for the three-month period ended February 28, 2017 to 51% for the three-month period ended February 28, 2018. The increase in gross margin is mainly explained by higher revenues from our FFR and other medical products line as explained previously. The increase in gross margin percentage reflects higher sales volume and the related benefits of scale combined with enhanced productivity.

### **Administrative expenses**

Administrative expenses were \$942,000 and \$862,000, respectively, for the three-month period ended February 28, 2018 and 2017. The increase is mainly explained by higher salaries and fringe benefits, professional fees, insurance fees and recruiting expenses. This was partly offset by a lower allowance for doubtful accounts.

### **Sales and marketing expenses**

Sales and marketing expenses totalled \$2,234,000 for the three-month period ended February 28, 2018, an increase of \$672,000 over the \$1,562,000 reported during the same period in 2017. The increase is largely explained by higher headcount, commissions, tradeshow, travelling and subcontractors when compared with last year due to the expansion of Opsens' sales channel for its FFR products in United States.

### **Research and development expenses**

Research and development expenses totalled \$874,000 for the three-month period ended February 28, 2018, an increase of \$60,000 over the \$814,000 reported during the same period in 2017. The variation is mainly explained by higher salaries and fringe benefits for our FFR activities.

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

Financial expenses reached \$10,000 for the three-month period ended February 28, 2018 compared with financial revenues of \$29,000 for the same period in 2017. The increase in financial expenses is explained by a less favorable exchange rate resulting in a negative impact of \$26,000 and by a decrease in interest revenues of \$20,000.

### **Change in fair value of embedded derivative**

The change in fair value of embedded derivative comes from the variance of the fair market value of the conversion option component of the convertible debenture. The convertible debenture contains a cash settlement feature, which under IAS 32, "Financial Instruments: Presentation", is accounted for as a compound instrument with a debt component and a separate embedded derivative representing the conversion option. Both the debt and embedded derivative components of this compound financial instrument are measured at fair value on initial recognition. The debt component is subsequently accounted for at amortized cost using the effective interest rate method. The embedded derivative is subsequently measured at fair value at each reporting date with gains and losses in fair value recognized through profit or loss. During the three-month period ended February 28, 2018, no expense (\$46,000 for the three-month period ended February 28, 2017) 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 three-month period ended February 28, 2018 was \$1,267,000 compared with \$1,001,000 for the same period in 2017.

## CONSOLIDATED STATEMENT OF FINANCIAL POSITION DATA

(In thousands of Canadian dollars)	As at February 28, 2018	As at August 31, 2017
	\$	\$
Current assets	21,720	23,607
Total assets	25,642	27,610
Current liabilities	3,184	7,698
Long-term liabilities	1,745	1,947
Shareholders' equity	20,713	17,965

Total assets as at February 28, 2018 were \$25,642,000 compared with \$27,610,000 as at August 31, 2017. The decrease is mainly related to lower cash and cash equivalents of \$575,000, by lower trade and other receivables of \$910,000 and by lower tax credit receivable of \$368,000.

Current liabilities totalled \$3,184,000 as at February 28, 2018 compared with \$7,698,000 as at August 31, 2017. The decrease is mainly explained by the conversion of the convertible debenture to shareholders' equity amounting to \$3,853,000. Also, this decrease is explained by lower accounts payable and accrued liabilities of \$607,000.

Long-term liabilities totalled \$1,745,000 as at February 28, 2018 compared with \$1,947,000 as at August 31, 2017, a decrease of \$202,000. The decrease is mainly explained by a lower portion of long-term debt of \$117,000.

## SUMMARY OF CONSOLIDATED QUARTERLY RESULTS

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

(Unaudited, in thousands of Canadian dollars, except for information per share)	Three-month period ended 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)
Net loss per share – Basic and diluted	(0.01)	(0.01)	(0.02)	(0.02)

(Unaudited, in thousands of Canadian dollars, except for information per share)	Three-month period ended February 28, 2017	Three-month period ended November 30, 2016	Three-month period ended August 31, 2016	Three-month period ended May 31, 2016
	\$	\$	\$	\$
Revenues	4,808	3,745	3,024	2,125
Net loss for the period	(1,001)	(2,541)	(3,025)	(3,076)
Net loss per share – Basic and diluted	(0.01)	(0.03)	(0.04)	(0.05)

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

## LIQUIDITY AND CAPITAL RESOURCES

As of February 28, 2018, the Company had cash and cash equivalents of \$11,995,000 compared with \$12,570,000 as of August 31, 2017. Of this amount as of February 28, 2018, \$10,489,000 was invested in highly liquid, safe investments. As of February 28, 2018, Opsens had a working capital of \$18,536,000, compared with \$15,909,000 as of August 31, 2017. The increase in working capital is mainly related to the conversion of the debenture into shareholders' equity.

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.

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

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

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

(In thousands of Canadian dollars)	Use of funds as planned	Over-Allotment	Funds available to Opsens from equity financing	Actual use of funds as at February 28, 2018	Reclass of use of funds as planned	Funds remaining to be used
	\$	\$	\$	\$	\$	\$
Net proceeds from the issue, including the over-allotment option	11,870,470	1,885,097	13,755,567	11,799,336	-	1,956,231
<b>Use of proceeds</b>						
Sales and Marketing	7,869,970	1,885,097	9,755,067	8,624,599	500,000	1,630,468
Research and Development						
Production of clinical data	920,000	-	920,000	94,237	(500,000)	325,763
Further the development of Opsens' FFR technology	2,360,000	-	2,360,000	2,360,000	-	-
Working capital	720,500	-	720,500	720,500	-	-
<b>Total use of proceeds</b>	11,870,470	1,885,097	13,755,567	11,799,336	-	1,956,231

Production of clinical data will be less expensive than expected by management. So, fund will be used for the commercialization activities of Opsens FFR products.

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

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

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

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

## SUMMARY OF CASH FLOWS

(In thousands of Canadian dollars)	<b>Three-month period ended February 28, 2018</b>	<b>Three-month period ended February 28, 2017</b>	<b>Six-month period ended February 28, 2018</b>	<b>Six-month period ended February 28, 2017</b>
	\$	\$	\$	\$
Operating activities	(1,371)	(1,853)	(409)	(3,384)
Investing activities	(201)	(70)	(270)	(162)
Financing activities	166	13,835	72	13,823
Effect of foreign exchange rate changes on cash and cash equivalent	(6)	(8)	32	-
<b>Net change in cash and cash equivalents</b>	<b>(1,412)</b>	<b>11,904</b>	<b>(575)</b>	<b>10,277</b>

### Operating activities

Cash flows used by our operating activities for the three-month period ended February 28, 2018 were \$1,371,000 compared to \$1,853,000 for the same period last year. The decrease in cash flows used by our operating activities is mainly explained by a positive variance in changes in non-cash operating working capital items mostly related to trade and other receivables. This is partly offset by a negative variance of EBITDACO as explained previously.

For the six-month period ended February 28, 2018, cash flows used by our operating activities were \$409,000 compared to \$3,384,000 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 and by a positive 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, 2018, cash flows used by our investing activities reached \$201,000 compared to \$70,000 for the three-month period ended February 28, 2017. The increase is mainly explained by higher acquisitions of property, plant and equipment for the medical sector.

For the six-month period ended February 28, 2018, cash flows used by our investing activities reached \$270,000 compared to \$162,000 for the six-month period ended February 28, 2017. The increase is mainly explained by we have no proceeds from disposal of property, plant and equipment during the six months period ended February 28, 2018 compared to the same period last year.

**Financing activities**

For the three-month period ended February 28, 2018, cash flows generated by our financing reached \$166,000 compared to \$13,835,000 for the three-month period ended February 28, 2017. The decrease is mainly explained by the fact that we have not completed an equity financing during the three-month period ended February 28, 2018 whereas we have completed one during to the same period last year.

For the six-month period ended February 28, 2018, cash flows generated by our financing reached \$72,000 compared to \$13,823,000 for the six-month period ended February 28, 2017. The decrease is mainly explained by the fact that we have not completed an equity financing during the six-month period ended February 28, 2018 whereas we have completed one during to the same period last year.

**SUBSEQUENT EVENT**

On March 22, 2018, the Company achieved a technical milestone related to the agreement with Abiomed and the Company received a payment, amounting to \$654,400 (US\$500,000) that will be recorded as licensing revenues in the consolidated statements of loss and comprehensive loss during the third quarter of fiscal year 2018.

## INFORMATION BY REPORTABLE SEGMENTS

### *Sector's 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.

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

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

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

	<b>Three-month periods ended February 28,</b>					
	<b>2018</b>			<b>2017</b>		
	Medical	Industrial	Total	Medical	Industrial	Total
	\$	\$	\$	\$	\$	\$
External sales	<b>5,017,001</b>	<b>425,025</b>	<b>5,442,026</b>	4,365,336	442,907	4,808,243
Internal sales	-	<b>24,206</b>	<b>24,206</b>	-	83,541	83,541
Gross margin	<b>2,557,491</b>	<b>235,466</b>	<b>2,792,957</b>	2,009,338	245,324	2,254,662
Depreciation of property, plant and equipment	<b>185,437</b>	<b>19,353</b>	<b>204,790</b>	148,620	22,703	171,323
Amortization of intangible assets	<b>19,254</b>	<b>3,702</b>	<b>22,956</b>	15,553	3,848	19,401
Financial expenses (revenues)	<b>(60,283)</b>	<b>70,906</b>	<b>10,623</b>	(102,983)	74,086	(28,897)
Change in fair value of embedded derivative	-	-	-	45,592	-	45,592
Net loss	<b>(1,089,832)</b>	<b>(177,387)</b>	<b>(1,267,219)</b>	(608,438)	(391,544)	(999,982)
Acquisition of property, plant and equipment	<b>83,138</b>	-	<b>83,138</b>	138,994	1,232	140,226
Additions to intangible assets	<b>11,744</b>	<b>300</b>	<b>12,044</b>	668	165	833
Segment assets	<b>24,155,056</b>	<b>1,487,312</b>	<b>25,642,368</b>	25,840,670	2,258,021	28,098,691
Segment liabilities	<b>4,715,007</b>	<b>214,729</b>	<b>4,929,736</b>	9,363,642	308,809	9,672,451

**Six-month periods February,**

	<b>2018</b>			<b>2017</b>		
	Medical	Industrial	Total	Medical	Industrial	Total
	\$	\$	\$	\$	\$	\$
External sales	<b>10,755,979</b>	<b>1,049,650</b>	<b>11,805,629</b>	7,695,522	857,275	8,552,797
Internal sales	-	<b>66,450</b>	<b>66,450</b>	-	200,946	200,946
Gross margin	<b>5,470,938</b>	<b>658,223</b>	<b>6,129,161</b>	3,062,958	382,686	3,445,644
Depreciation of property, plant and equipment	<b>363,152</b>	<b>38,888</b>	<b>402,040</b>	301,748	47,240	348,988
Amortization of intangible assets	<b>41,623</b>	<b>7,393</b>	<b>49,016</b>	33,678	7,063	40,741
Financial expenses (revenues)	<b>(139,320)</b>	<b>124,134</b>	<b>(15,186)</b>	(15,384)	138,482	123,098
Change in fair value of embedded derivative	<b>501,250</b>	-	<b>501,250</b>	231,567	-	231,567
Net loss	<b>(2,168,325)</b>	<b>(34,458)</b>	<b>(2,202,783)</b>	(2,758,600)	(782,632)	(3,541,232)
Acquisition of property, plant and equipment	<b>365,510</b>	<b>2,827</b>	<b>368,337</b>	217,087	7,637	224,724
Additions to intangible assets	<b>29,360</b>	<b>300</b>	<b>29,660</b>	19,618	17,496	37,114
Segment assets	<b>24,155,056</b>	<b>1,487,312</b>	<b>25,642,368</b>	25,840,670	2,258,021	28,098,691
Segment liabilities	<b>4,715,007</b>	<b>214,729</b>	<b>4,929,736</b>	9,363,642	308,809	9,672,451

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

	<b>Three-month periods ended February,</b>		<b>Six-month periods ended February,</b>	
	<b>2018</b>	2017	<b>2018</b>	2017
	\$	\$	\$	\$
Gross margin per reportable segments	<b>2,792,957</b>	2,254,662	<b>6,129,161</b>	3,445,644
Elimination of inter-segment profits	-	(993)	-	(1,018)
Gross margin	<b>2,792,957</b>	2,253,669	<b>6,129,161</b>	3,444,626
Net loss per reportable segments	<b>(1,267,219)</b>	(999,982)	<b>(2,202,783)</b>	(3,541,232)
Elimination of inter-segment profits	-	(993)	-	(1,018)
Net loss and comprehensive loss	<b>(1,267,219)</b>	(1,000,975)	<b>(2,202,783)</b>	(3,542,250)

*Geographic sector's information*

	Three-month periods ended February 28,		Six-month periods ended February 28,	
	2018	2017	2018	2017
	\$	\$	\$	\$
Revenues per geographic sector				
Japan	<b>1,284,130</b>	1,769,655	<b>2,653,234</b>	3,121,055
United States	<b>2,196,001</b>	1,502,773	<b>5,069,076</b>	2,243,736
Canada	<b>475,636</b>	400,235	<b>972,027</b>	829,276
Others*	<b>1,486,259</b>	1,135,580	<b>3,111,292</b>	2,358,730
	<b>5,442,026</b>	4,808,243	<b>11,805,629</b>	8,552,797

\* 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, 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 three-month period ended February 28, 2017, revenues from two clients represented individually more than 10% of the total revenues of the Company, i.e. approximately 37% (medical's reportable segment) and 23% (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).

During the six-month period ended February 28, 2017, 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 15% (medical's reportable segment).

*Medical segment*

For the three-month period ended February 28, 2018, revenues from medical segment were \$5,017,000 compared with \$4,365,000 for the three-month period ended February 28, 2017, an increase of \$652,000. The increase is explained by higher FFR revenues of \$196,000, by higher other medical revenues of \$1,463,000. This increase is partly offset by the recognition of non-recurring revenues of \$1 007,750 (US\$750,000) related to the Abiomed agreement in the three-month period ended February 28, 2017.

Gross margin was \$2,557,000 for the three-month period ended February 28, 2018 compared with \$2,009,000 for the three-month period ended February 28, 2017, an increase of \$548,000 (which take into consideration licensing revenues arising from the Abiomed agreement of \$90,000 for the three-month period ended February 28, 2018 and 1,098,000 for the three-month period ended February 28, 2017, respectively). The gross margin percentage for the three-month period ended February 28, 2017 was 46% compared to 51% for the three-month period ended February 28, 2018. The increase in gross margin is mainly explained by higher revenues from our FFR products and from other medical revenues products line. The increase in gross margin percentage reflects higher sales volume and the related scale economy combined with enhanced productivity.

Net loss for the medical segment was \$1,090,000 for the three-month period ended February 28, 2018 compared with \$608,000 for the same period last year. The increase in net loss is mainly explained by higher sales and marketing expenses as explained previously.

Working capital for the medical segment as at February 28, 2018 was \$17,446,000 compared with \$14,675,000 as at August 31, 2017. The increase of \$2,771,000 is mainly explained by the conversion of the convertible debenture in common share for an amount of \$3,853,000. This is partly offset by lower trade and other receivables of \$1,025,000 and by lower tax credit receivable of \$244,000.

#### *Industrial segment*

For the three-month period ended February 28, 2018, revenues from industrial segment were \$425,000 compared with \$443,000 for the three-month period ended February 28, 2017, a decrease of \$18,000.

Gross margin was \$235,000 for the three-month period ended February 28, 2018 compared with \$245,000 for the same period in 2017, a decrease of \$10,000. Gross margin percentage increase from 47% for the three-month period ended February 28, 2017 to 52% for the three-month period ended February 28, 2018. The increase in gross margin percentage is mainly explained by sales of products with higher margin than last year.

Net loss for the industrial segment was \$177,000 for the three-month period ended February 28, 2018 compared to \$392,000 for the three-month period ended February 28, 2017. The decrease in net loss is mainly explained by lower administrative expenses, sales and marketing expenses and research and development cost.

Working capital for the industrial segment as at February 28, 2018 was \$1,089,000 compared with \$1,235,000 as at August 31, 2017. The decrease of 146,000 is mainly explained by lower tax credit receivable of \$125,000.

### **SIX-MONTH PERIODS ENDED FEBRUARY 28, 2018 AND 2017**

#### **Revenues**

Revenue totalled \$11,806,000 for the six-month period ended February 28, 2018 compared with \$8,553,000 a year earlier. The increase is explained by higher medical revenues of \$3,131,000 and by increase in industrial revenues of \$193,000.

#### **Gross margin**

Information and analysis in this section do not take into consideration licensing revenues arising from the Abiomed agreement (\$1,118,600 and \$1,189,450 for the six-month period ended February 28, 2018 and 2017, respectively).

Gross margin was \$5,011,000 for the six-month period ended February 28, 2018 compared with \$2,255,000 for the same period last year, an increase of \$2,756,000. The gross margin percentage increased from 31% for the six-month period ended February 28, 2017 to 47% for the six-month period ended February 28, 2018. The increase in gross margin is explained by higher medical revenues. The increase in gross margin percentage reflects higher sales volume and the related scale economy combined with enhanced productivity.

#### **Administrative expenses**

Administrative expenses were \$1,671,000 and \$1,750,000, respectively, for the six-month periods ended February 28, 2018 and 2017. The decrease is explained by a lower allowance for doubtful accounts and by lower stock-based compensation costs. This is partly offset by higher professional fees.

### **Sales and marketing expenses**

Sales and marketing expenses for the six-month period ended February 28, 2018 totalled \$4,430,000, an increase of \$1,098,000 over the \$3,332,000 reported during the same period in 2017. The increase is largely explained by higher headcount, commissions, tradeshow, travelling and subcontractor expenses when compared with last year due to the expansion of Opsens' sales channel for its FFR products in United States.

### **Research and development expenses**

Research and development expenses totalled \$1,745,000 for the six-month period ended February 28, 2018, an increase of \$195,000 over the \$1,550,000 reported during the same period in 2017. The variation is mainly explained by higher headcount for our FFR activities and by higher supplies and subcontractors' expenses.

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

Financial revenues reached \$15,000 for the six-month period ended February 28, 2018 compared with financial expense of \$123,000 for the same period last year. The increase in financial revenues during the period is explained by a more favorable exchange rate resulting in a positive impact of \$136,000.

### **Change in fair value of embedded derivative**

The change in fair value of embedded derivative comes from the variance of the fair market value of the conversion option component of the convertible debenture. The convertible debenture contains a cash settlement feature, which under IAS 32, "Financial Instruments: Presentation", is accounted for as a compound instrument with a debt component and a separate embedded derivative representing the conversion option. Both the debt and embedded derivative components of this compound financial instrument are measured at fair value on initial recognition. The debt component is subsequently accounted for at amortized cost using the effective interest rate method. The embedded derivative is subsequently measured at fair value at each reporting date with gains and losses in fair value recognized through profit or loss. During the six-month period ended February 28, 2018, an expense of \$501,250 (\$231,567 for the six-month period ended February 28, 2017) 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 six-month period ended February 28, 2018 was \$2,203,000 compared to \$3,542,000 for the same period in 2017.

### **INFORMATION ON SHARE CAPITAL**

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, 2017, the Company granted to some employees and Directors a total of 1,982,750 stock options with an average exercise price of \$1.56, cancelled 603,875 stock options with an exercise price of \$0.86 and 651,500 stock options with an average exercise price of \$0.45 were exercised.

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

For the six-month period ended February 28, 2017, 119,742 warrants with an average exercise price of \$1.03 were exercised.

As at April 11, 2018, the following components of shareholders' equity are outstanding:

Common shares	89,826,317
Stock options	4,849,125
Securities on a fully diluted basis	94,675,442

No dividend was declared per share for each share class.

## RELATED-PARTY TRANSACTIONS

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

	Three-month periods ended February 28,		Six-month periods ended February 28,	
	2018	2017	2018	2017
	\$	\$	\$	\$
Professional fees paid to a company controlled by a director	-	31,391	-	49,696

Fees are incurred for the Company's FFR activities.

## 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, following the retirement of the former vice-president medical devices, management reorganized duties within the organization and assigned vice-president medical' duties to various employees.

Also, additional technical and production personnel as well as sales and marketing personnel will be required to support the expected growth. Taking into account the employment market in Canada, US and EMEA, Opsens is confident in its capacity to recruit qualified human resources in a timely fashion.

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

## 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, 2018 that have materially affected, or are reasonably likely materially affecting its ICFR.

## **RISK FACTORS AND UNCERTAINTIES**

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

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

## **OFF-BALANCE SHEET ARRANGEMENTS**

As of February 28, 2018, 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 11, 2018