

# KRAKEN ROBOTICS INC. MANAGEMENT DISCUSSION AND ANALYSIS FOR THE THREE MONTH PERIOD ENDED MARCH 31, 2018

This Management Discussion and Analysis ("MD&A") of Kraken Robotics Inc. (the "Company" or "Kraken") provides analysis of the Company's financial results for the three month period ended March 31, 2018 and should be read in conjunction with the Company's unaudited condensed consolidated interim financial statements and the notes thereto for the three month period ended March 31, 2018, which are available on SEDAR at www.sedar.com. This MD&A is current as at May 30, 2018, the date of preparation.

The March 31, 2018 condensed consolidated interim financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS") applicable to the preparation of interim financial statements. These financial statements were prepared using the same accounting policies and methods of computation, and are subject to the same use of estimates and judgments, as the Company's consolidated financial statements for the year ended December 31, 2017. These condensed consolidated interim financial statements do not include all disclosures required by International Financial Reporting Standards ("IFRS") for annual consolidated financial statements and accordingly should be read in conjunction with the Company's audited consolidated financial statements for the year ended December 31, 2017 prepared in accordance with IFRS as issued by the International Accounting Standards Board ("IASB"). All amounts are expressed in Canadian dollars, unless otherwise stated.

While the Company has historically had quarterly reviews completed by an auditor, many TSX-V listed companies do not engage in this practice. The Company expects in future quarters that it will not engage auditors to perform quarterly reviews, and thus save costs and management time. With the transition to IFRS 15 and IFRS 9 in the first quarter ended March 31, 2018, the Company had engaged its auditor to perform a review. However, the auditor was unable to complete the review of interim financial statements prior to the Company's filing deadline. Annual audits will continue as usual.

# Forward-Looking Statements

Certain statements contained in the following MD&A constitute forward-looking statements. Such forward-looking statements involve a number of known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Readers are cautioned not to place undue reliance on these forward-looking statements.

# NATURE OF BUSINESS

Kraken Robotics Inc. ("Kraken" or the "Company") (formerly Kraken Sonar Inc.) was incorporated on May 14, 2008 under the *Business Corporations Act, British Columbia*), is a publicly traded company, and its registered office is located at 100 King Street. West, #1600, Toronto, Ontario, M5X 1G5.

The Company's principal business is the design, manufacture and sale of software-centric sensors and underwater robotic systems.

Effective September 22, 2017, Kraken Sonar Inc. changed its name to Kraken Robotics Inc. The Company's Canadian operating subsidiary, Kraken Sonar Systems Inc. has been renamed Kraken Robotic Systems Inc. The name change was intended to reflect the Company's continued growth as it evolves from manufacturing sensors to supplying complete robotic systems, software and services in the global Unmanned Maritime Systems ("UMS") market.

While the Company has successfully raised growth capital through equity issuance to date, at March 31, 2018, the Company had not yet achieved profitable operations, has experienced significant losses and negative cash flows from operations since inception, and has a deficit of \$10,392,758. It may incur further losses in the development of its business. The continued operations of the Company are dependent on it's ability to achieve and maintain revenues sufficient to cover its operating costs and other obligations or obtaining additional financing. There is a risk that additional financing will not be available on

a timely basis or on terms acceptable to the Company. These material uncertainties may cast significant doubt on the Company's ability to continue as a going concern.

### **Company Overview**

Kraken Robotics Inc. (PNG: TSX-V) is a marine technology company supplying advanced sonar and optical sensors and underwater robotics equipment for military and commercial applications. The Company is recognized as world leading innovators of Synthetic Aperture Sonar (SAS) - a revolutionary underwater imaging technology that dramatically improves seabed surveys by providing ultra-high resolution imagery at superior coverage rates.

Both military and commercial markets are showing encouraging growth as they are now incorporating unmanned vehicles and intelligent sensors in their procurement plans and budgets. In fact, industry analyst Market Info Group estimates that the global unmanned maritime systems market will reach \$2 billion by 2020.

# AQUAPIX® MINSAS SENSOR FOR UNDERWATER VEHICLES

The AquaPix<sup>®</sup> MINSAS sensor is based upon Kraken's core Synthetic Aperture Sonar technology. The MINSAS compact receiver array length of only 60cm provides high-resolution 3cm x 3cm imagery at ranges up to 120m per side. The lightweight array is integrated into a modular payload section of less than eight-inch diameter, which can be easily mobilized in customers' Unmanned Underwater Vehicles (UUVs) of all sizes. The MINSAS payload section also includes Kraken's latest generation Real Time SAS Processor, the RTSAS MK-II. The RTSAS enables real-time, onboard processing of SAS imagery and bathymetry, and allows operators to leverage Kraken's suite of post-processing tools, including the newly developed SASView 3D visualization and control software. The MINSAS plus RTSAS provides operators with an area coverage rate of 1km<sup>2</sup> per hour at full SAS resolution, enabling highly efficient survey operations.

During Q1, Kraken engaged in the production of MINSAS sensors for two customers for integration onto their AUVs. These included an unnamed US customer as well as Ocean Infinity. In September 2017, the Company announced it had been awarded a contract valued at approximately \$3,000,000 by Ocean Infinity. The contract is to supply and integrate its AquaPix<sup>®</sup> solution onboard up to eight of Ocean Infinity's HUGIN Autonomous Underwater Vehicles (AUV). Under this contract, the first purchase order was for US\$662,500. With the implementation of IFRS 15, revenues from this purchase order will get recognized upon final shipment, which is expected in Q2 2018.

# SEAVISION<sup>®</sup> 3D LASER SYSTEM FOR UNDERWATER VEHICLES

Kraken Robotik GmbH ("KRG"), a wholly-owned subsidiary of the Company, commenced operations in January 2017. Its focus is the development of 3D imaging sensors, machine learning, and artificial intelligence (AI) algorithms for underwater robotic platforms. During Q3, KRG added three world class team members including Dr. Jan Albiez, Patrick Paranhos, and Dr. Sylvain Joyeux. Each of these team members bring strong technical capabilities in the areas of underwater robotics, AI, and machine learning but also relationships across the commercial market and specifically oil and gas. Of note, all 3 were senior technical and project leaders on the BG/Shell FlatFish AUV project in Brazil and helped develop and train a 20-person robotics team in Brazil.

In Q2 2017 at the Ocean Business conference, Kraken Robotik GmbH, introduced its new SeaVision<sup>®</sup> 3D laser system. SeaVision<sup>®</sup> is the world's first RGB underwater laser imaging system that offers the resolution, range and scan rate to deliver dense full colour 3D point cloud images of subsea infrastructure with millimetre accuracy in real time. The ability to generate accurate 3D reconstruction of underwater infrastructure is an important requirement for commercial, military and ocean research applications. The initial system is designed for deployment on underwater robotic platforms such as Remotely Operated Vehicles (ROVs) and AUVs.

In Q2 2017, Kraken Robotik GmbH was awarded a contract to design and build a 6,000m rated 3D laser/optical imaging system for the prestigious Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research (AWI) in Bremerhaven.

The custom version of the SeaVision<sup>®</sup> system was successfully delivered in Q3 and generated revenue of approximately \$160,000.

In September 2017, Kraken Robotik GmbH was awarded the Go-3D prize for its SeaVision<sup>®</sup> system presented by the Fraunhofer Institute for Computer Graphics Research in association with BITKOM, the German Association for Information Technology, Telecommunications and News Media. The award was established to recognize outstanding technical achievement in the field of 3D visualization.

After completing sea trials in the Baltic Sea in Q1 2018, SeaVision<sup>®</sup> production units are expected to be available in Q3 2018 and will be sold for approximately \$100,000 per system. Kraken has seen significant interest in SeaVision<sup>®</sup> from customers across many industries from defense to oil and gas, to renewable energy and nuclear.

## KATFISH<sup>™</sup> TOWED UNDERWATER VEHICLE

After a multi-year development effort, the Company has developed the Kraken Active Towed Fish (KATFISH<sup>™</sup>) for high speed, high resolution seabed mapping. The system enables real-time seabed imagery, bathymetry and advanced 3D digital terrain models of the seabed – optimized for both manned and unmanned surface vessels.

KATFISH<sup>™</sup> is a high resolution, high speed seabed imaging platform. Coupled with Kraken's revolutionary AquaPix<sup>®</sup> - Miniature Interferometric Synthetic Aperture Sonar (MINSAS), it is especially well-suited for both military and commercial seabed surveys.

In the commercial seabed survey market, KATFISH<sup>™</sup> offers offshore oil and gas exploration and production companies the advantage of comprehensive, high-resolution surveys of existing infrastructure, such as pipelines and subsea stations, completed in at least half the time as more conventional methods. KATFISH<sup>™</sup> operates at speeds up to 10 knots, versus the slow moving 1-2 knots of ROV or the medium 3-4 knots of the passively stable sonar systems, thus reducing operating time and cost.

In the defence market, there is a growing global requirement for modernization of mine countermeasures solutions. The previous generation of single-role mine hunting vessels designed and built between the 1970's - 1990's are now being withdrawn from service. This leaves a growing requirement for high resolution, high speed seabed imaging platforms.

The ability of the KATFISH<sup>™</sup> platform to generate centimetre-scale sonar resolution in all three dimensions can provide significant improvement in the detection, classification and identification of small seabed objects for both military and commercial seabed survey missions.

Kraken's KATFISH<sup>™</sup> product offering sells for US\$1.5 million (Commercial Off The Shelf: COTS) to US\$2.5 million (Military Standard: MIL-STD).

Starting in Q3 2017, Kraken began the build and testing of a MIL-STD version of the KATFISH<sup>™</sup>. At March 31, 2018, Kraken had two completed KATFISH<sup>™</sup> (built for specific customers) which are held in inventory awaiting further testing and planned sea trials and had a third unit partially completed.

In May 2018, Kraken announced that it had successfully completed military standard certification testing of the KATFISH-M, a ruggedized version of Kraken's KATFISH<sup>™</sup> Towed Synthetic Aperture Sonar Platform. KATFISH-M was tested and certified by independent laboratories on a variety of United States Department of Defense military ruggedization standards known as MIL-STD-810G and MIL-STD-461. The MIL-STD-810G focuses on environmental engineering and requires products to pass a series of laboratory tests to ensure that military equipment can operate in extreme worldwide environments. The MIL-STD-461 standard covers the requirements and test limits for the measurement and determination of the electromagnetic interference characteristics (emission and susceptibility) of electronic, electrical, and electromechanical equipment.

Kraken has high expectations for the KATFISH<sup>™</sup> which provides high performance underwater mapping and mine hunting capabilities from a towed platform for both the military and commercial markets. The Company has partnered as a supplier to several large defense contractors who are involved in various multi-unit bids, most of which are expecting contract award in 2018 and 2019.

Announcing the military certification in mid May 2018, Karl Kenny, Kraken's President and CEO, said, "This military standard certification enables Kraken to address over \$100 million of near term international navy contract opportunities that specify a higher level of product ruggedization than the commercial market. Kraken will showcase its KATFISH-M at the Advanced Naval Technology Exercise (ANTX) in August in the United States. ANTX is an annual, invitation-only event that was created by the U.S. Navy to see the future of naval technology in action today."

## THUNDERFISH® AUTONOMOUS UNDERWATER VEHICLE (AUV)

In March 2017, the Company announced a strategic move to further strengthen its IP portfolio, with the signing of an exclusive licensing agreement for underwater robotics technology with Germany's Fraunhofer Institute for Optronics, System Technologies and Image Exploitation (IOSB). As part of this agreement, Fraunhofer delivered its DeDave AUV to Kraken in June 2017.

Kraken has licensed Fraunhofer software for use in its ThunderFish® AUV, which is currently under development. The ThunderFish® AUV is a technical upgrade of the DeDave AUV, but is still a prototype. Kraken will pay Fraunhofer a royalty based on a percentage of each sale with minimum commitments starting in 2022. Kraken will exclusively license the Fraunhofer software and hardware IP and technology for large AUVs.

Fraunhofer is the largest organization for applied research in Europe with 69 institutes, over 24,500 employees and a  $\leq$ 2.1 billion annual budget. Since 2012, Fraunhofer has been developing intellectual property and technology related to underwater robotics. Over C\$6 million has been invested in Fraunhofer's underwater sensor robotics programs, culminating in the development of the DeDave.

In late June 2017, the Company took delivery of the 6000m rated DeDave AUV which Kraken rebranded ThunderFish® Alpha AUV. This AUV is designed for deep sea military, commercial and scientific applications for use as a sensor and robotics technology demonstration platform to support ongoing development of the Company's underwater sensor and robotics programs. Kraken paid \$378,200 (Euro 250,000) towards the AUV's total cost of Euro 1,000,000. At March 31, 2018, an amount of \$1,219,060 (Euro 800,000) was included in trade payables and accrued liabilities, representing the three remaining quarterly payments- in respect of the acquisition of the AUV and services for research and development works.

Kraken has established a long term technical co-operation program with Fraunhofer for hydrodynamic control systems, mission planning and autonomy algorithms that can be deployed in Kraken's ThunderFish® AUV program. Kraken has committed to granting research and development projects to Fraunhofer of a minimum Euro 300,000 per year for a period of five years. These projects will be expensed as incurred.

Subsequent to year end, Kraken announced that its ThunderFish<sup>®</sup> 300, a shallow water version of its AUV had been prequalified under the Canada's Build in Canada Innovation Program (BCIP). Through the BCIP, companies can sell their prequalified innovations to the federal government as their first reference sale. After testing a company's innovation, federal departments provide feedback on the innovation's performance in an operational setting. The program pays up to \$1 million for military innovations. Kraken has finalized the Statement of Work and is working to finalize this contract in Q2 2018.

## AUTONOMOUS LAUNCH AND RECOVERY SYSTEMS (ALARS)

Launch and recovery of equipment offshore is one of the most dangerous phases of any ROV or AUV operation. Through the hiring of former Rolls Royce Marine employees in 2016, Kraken's Handling Systems Division has an experienced LARS engineering team with a proven track record. This group has spent two years in R&D mode, working on both an intelligent winch system and an autonomous LARS system that can launch AUVS from vessels, host facilities and docking stations.

Kraken expects products to be announced and available for sale from our Handling Systems Division in 2018. These products range in price from \$200,000 to \$1 million. This group's capabilities are integral to various customer opportunities that Kraken is involved in or pursuing.

## **ROBOTICS AS A SERVICE (RaaS)**

Kraken believes that certain customers would prefer to hire the company to provide product output (i.e. imaging and bathymetry data) to them using the Kraken's own equipment, rather than the customer buying the equipment and having to own and operate and maintain the equipment. This is the genesis of Kraken's RaaS offering. Kraken expects RaaS to become a growing part of its revenue mix over time. Kraken will provide RaaS services to customers using Kraken's KATFISH<sup>™</sup> towed underwater vehicles and ThunderFish<sup>®</sup> AUV.

In Q2 2017, the Company was awarded its first "Robotics as a Service" ("RaaS") contract by OEX Recovery Group Incorporated, to conduct a search for nine Avro Arrow free flight models launched over Lake Ontario in series of tests during 1954 - 1957. The models are one-eighth scale replicas of the famed flying jet, and were part of the final flight design tests done prior to the production of the CF-105 Arrow. The goal of the search was to discover the resting place of nine models, recover them and ultimately house them at the Canada Aviation and Space Museum in Ottawa and the National Air Force Museum of Canada in Trenton, Ontario.

Using Kraken's ThunderFish<sup>®</sup> underwater robot, the search for the lost Avro Arrow test models occurred in Q3 2017 and Kraken generated revenues of approximately \$475,000 on this contract. The search generated significant national and international media interest when the successful discovery of a free-flight Avro Arrow model on the floor of Lake Ontario was announced September 8, 2017.

No RaaS revenue was recognized in Q1, 2018, but Kraken is bidding on several opportunities involving both shallow and deeper water surveys with both KATFFISH<sup>™</sup> and ThunderFish<sup>®</sup>.

#### KRAKEN POWER GMBH

In May 2017, the Company announced that it had acquired a minority interest in ENITECH Subsea GmbH of Rostock, Germany and that the company has been renamed Kraken Power GmbH. Under the agreement, Kraken had taken a 19.9% equity interest and provided a €110,000 convertible loan. The loan pays interest at 5% per annum and has a term of three years. Through the conversion of the loan to equity and a further investment capped at €200,000, Kraken can choose to increase its ownership stake to 75% of the common shares of Kraken Power GmbH.

Kraken Power GmbH designs and manufactures unique pressure tolerant thrusters, drives, batteries, battery management systems, and electronics. These are specialized deep-sea components for AUVs and ROVs. Kraken Power's technology and products enable a significant reduction in bill of material costs for our ThunderFish® AUV.

Kraken's investment precipitated additional funding in Germany by an arms-length third party involved in regional economic development activities that provided Kraken Power with working capital for operations, hiring of additional personnel and funds for the purchase of inventory and capital assets.

Since being re-capitalized, Kraken Power has successfully restarted operations and is seeing strong international interest in its pressure tolerant encapsulation technology and products from companies providing equipment to the offshore oil and gas market as well as major defense contractors.

## FINANCIAL CONTRIBUTIONS RECEIVED

Non-refundable financial contributions of \$2,617,399 have been awarded by governmental agencies during fiscal 2017 and the first three months to March 31, 2018 which will be used to support the development of the Company's underwater robotics program. At March 31, 2018, the Company had drawn down assistance totaling \$1,155,965 leaving \$1,461,434 remaining to fund research and development activities over the next 4 quarters. Major components of this funding are as follows:

In March 2017, Kraken announced that it will receive a non-refundable financial contribution of up to \$1,470,000 from the National Research Council of Canada Industrial Research Assistance Program (NRC-IRAP). NRC-IRAP's continued backing and assistance in the form of technical and business advisory services and funding is being used to support the development of Kraken's underwater robotics program, which involves development of a technology demonstration platform. The first phase of the program will utilize the Fraunhofer Institute's DEDAVE AUV (now called ThunderFish®) as the base platform. The AUV will be enhanced with hydrodynamic, control system and payload upgrades.

In May 2017, the Company announced that it has been awarded a non-refundable financial contribution of \$745,950 by the Research & Development Corporation (RDC) of Newfoundland and Labrador. Funding will support development of Kraken's ThunderFish® AUV program. The ThunderFish® program will combine smart sonar, laser and optical sensors, advanced pressure tolerant battery and thruster technologies and cutting edge artificial intelligence algorithms integrated onboard a cost effective 6,000 metre depth rated AUV.

On November 2017, the Company entered into a commercial contract with Petroleum Research Newfoundland and Labrador (PRNL) that includes funding from General Electric Oil and Gas and Innovate Newfoundland and Labrador. As part of this agreement, a non-refundable financial contribution from Innovate Newfoundland and Labrador of \$248,324 will be received. Kraken is working with General Electric Oil & Gas to merge Kraken's next generation sensors and underwater robotics, with GE's cloud-based data analytics infrastructure, demonstrating an end-to-end digitized concept of operations for subsea asset integrity management.

#### **RESULTS OF OPERATIONS**

#### **Selected Annual Information**

	Year Ended December 31, 2017	Year Ended December 31, 2016	Year Ended December 31, 2015	Year Ended December 31, 2014
Statement of Comprehensive Loss	(\$)	(\$)	(\$)	(\$)
Total Revenues	3,533,605	2,267,818	1,893,299	2,353,982
Cost of Sales	1,936,463	1,017,992	960,542	1,138,540
Loss from operating activities	(3,006,573)	(1,403,388)	(1,784,625)	(848,958)
Net loss	(2,397,229)	(1,420,175)	(1,992,410)	(1,310,240)
Basic and diluted loss per share	(0.03)	(0.02)	(0.03)	(0.03)

	Year Ended December 31, 2017	Year Ended December 31, 2016	Year Ended December 31, 2015	Year Ended December 31, 2014
Statement of Financial Position	(\$)	(\$)	(\$)	(\$)
Total Assets	5,258,148	2,188,578	2,042,676	2,943,303
Total Current Assets	3,458,421	1,771,898	1,857,733	2,813,957
Total Current Liabilities	4,722,736	1,416,353	1,074,373	3,050,759
Total Liabilities	4,722,736	1,416,353	1,074,373	3,050,759
Total Shareholders' Equity (Deficiency)	535,412	772,225	968,303	(107,456)

\*Note: the comparative information for 2014 is that of Kraken Robotic Systems Inc.

\*\* Note: Reclassification of Employee Costs and Government Assistance in Fiscal 2017 and Fiscal 2016 for financial statement presentation purposes has resulted in expense reallocations and related government assistance to Cost of Sales, Research and Development Expense, and Administrative Expense reported in prior periods.

The Company incurred a loss of \$2,397,229 for the year ended December 31, 2017, as compared with a loss of \$1,420,175 for the year ended December 31, 2016. Share-based payments of \$275,600 (2016 - \$143,500) were recorded upon the grant of incentive stock options pursuant to the Company's incentive stock option plan.

During fiscal 2017, the Company continued to ramp-up its business activities, which included establishing a wholly owned subsidiary, Kraken Robotics GmBH. Administrative expenses increased 63% with those of the prior year at \$2,722,486 (2016 - \$1,671,909). Included in the administrative expense were Kraken Robotics GmBH startup costs of \$109,599 (2016 - \$Nil). Research and Development costs, net of related government assistance increased 130% over the prior year at \$1,923,738 (2016 - \$837,805).

No cash dividends have been declared or paid since the date of incorporation and the Company has no present intention of paying dividends on its common shares. The Company anticipates that all available funds will be used to finance the growth of its business.

Selected financial information for each of the eight most recently completed quarters are as follows:

	Revenue (\$)	Operating expenses (\$)	Share-based payments (\$)	Net income (loss) (\$)	Comprehensive (loss) \$	Basic and diluted income (loss) per share (\$)
Q1 2018	-	1,123,215	26,100	(1,456,927)	(1,628,340)	(0.02)
Q4 2017	1,539,526	1,365,344	144,900	(673,135)	(732,957)	(0.01)
Q3 2017	1,585,664	1,018,855	18,100	109,712	(42,860)	(0.00)
Q2 2017	161,917	909,269	73,600	(1,115,902)	(1,175,008)	(0.01)
Q1 2017	246,498	1,310,247	39,000	(717,904)	(717,904)	(0.01)
Q4 2016	146,644	811,075	35,000	(846,552)	(846,552)	(0.01)
Q3 2016	944,941	561,960	5,900	19,234	19,234	0.00
Q2 2016	465,543	642,772	32,500	(475,261)	(475,261)	(0.01)

\*Note: Reclassification of Employee Costs and Government Assistance in 2017 and 2016 for financial statement presentation purposes has resulted in expense reallocation to Cost of Sales, Research and Development Expense, and Administrative Expense reported in prior periods.

	Total Assets (\$)	Total Current Assets (\$)	Total Current Liabilities (\$)	Total Liabilities (\$)
Q1 2018	5,693,665	3,939,755	6,540,189	6,540,189
Q4 2017	5,258,148	3,458,421	4,722,736	4,722,736
Q3 2017	5,032,126	3,070,138	3,955,656	3,955,656
Q2 2017	3,661,117	1,670,790	2,559,887	2,559,887
Q1 2017	2,268,631	1,977,338	2,120,310	2,120,310
Q4 2016	2,188,578	1,771,898	1,416,353	1,416,353
Q3 2016	2,571,357	2,173,186	987,579	987,579
Q2 2016	1,740,318	1,469,421	1,254,272	1,254,272

Comparative statement of financial position information for each of the eight most recently completed quarters

# Three Months Ended March 31, 2018

The Company recorded revenues of \$nil (2017 - \$246,498) from product sales and services, marking a decrease of \$246,498 over the same period of the prior fiscal year. With the adoption of IFRS 15, we no longer recognize revenue on a percentage of completion basis. We will continue the build and testing of two KATFISH<sup>™</sup> and two AquaPix<sup>®</sup> sensors and expect to recognize revenue on these products upon shipment during Q2 and Q3. The Company had deferred revenues of \$2,692,197 (2017 - \$491,266) which relate to customer advances on new orders during the quarter. The adoption of IFRS 15 at January 1, 2018 resulted in a decrease in trade and other receivables of \$885,833 and an increase to deferred revenues of \$1,888,546 (2017 - \$nil) as the Company's product sales in progress at the January 1, 2018 did not meet the criteria under IFRS 15 to allow for the recognition of revenue over time.

Cost of sales reflects the allocation of wages of employees primarily engaged in production activities and was lower from that of the prior year at 234,147 (2017 - 346,788), or approximately 68% of the costs incurred in the same period of the prior fiscal year. The adoption of IFRS 15 resulted in the Company presenting negative gross margins of 234,147 (2017 - 100,290).

The Company recorded a loss of (\$1,456,927) and comprehensive loss of (\$1,628,340) for the three months ended March 31, 2018, as compared to a loss of (\$717,904) and comprehensive loss of (\$717,904) for the same period of prior year.

Administrative expenses increased by \$171,609 to \$756,465 (2017 - \$584,856) due to both an increase in headcount and various administrative expenses such as rent and public company costs. Some notable items in the Administrative expense category include travel related costs of \$95,368 (2017 - \$53,957), rent of \$97,982 (2017 - \$58,324), and transfer agency services/public company fees of \$63,658 (2017 - \$38,864). During the quarter, the Company realized a foreign exchange loss of \$78,843 compared to a foreign exchange gain in 2017 - \$1,498.

Research and development costs ("R&D") costs decreased minimally with those of the prior year, totaling \$661,457 (2017 - \$686,390) resulting from the timing of expenditures on various R&D programs and increased R&D employee hiring.

Employee costs which previously captured all Salaries and Wages, and Government Assistance which was a recovery for Employee Costs, are now reclassified for presentation purposes for fiscal 2018, 2017 and 2016. This reclassification has resulted in changes to the operating expenses and related government assistance reported in prior periods for R&D costs, Administrative Expense, and Cost of Sales on the financial statements

# LIQUIDITY AND CAPITAL RESOURCES

At March 31, 2018, the Company had a working capital deficiency of \$2,600,434 (December 31, 2017 - \$1,264,315. Excluding deferred revenue, the Company had working capital of \$91,763 as compared to working capital deficit of \$773,049, as shown in the table below:

	March 31, 2018	December 31, 2017
Accounts Receivable	\$ 696,443	\$ 1,837,630
Inventory	3,063,262	1,530,508
Prepayments	180,050	90,283
Bank indebtedness	216,714	326,448
Short term loan	750,000	-
Trade and other payables	2,881,278	3,905,022
Working Capital (Deficit)	91,763	(773,049)
Deferred Revenue	2,692,197	491,266
With Deferred Revenues included	\$ (2,600,434)	\$ (1,264,315)

Cash as at March 31, 2018 was \$Nil, as compared to \$Nil held at December 31, 2017.

At March 31, 2018, proceeds of \$333,261 had been received upon the exercise of 2,221,742 share purchase warrants.

During the quarter ended March 31, 2018, the Company completed a non-brokered private placement of 10,714,285 shares at a price of \$0.14 to raise gross proceeds of \$1,500,000. The Company issued 9,000 finder's shares in connection with the placement.

During the three months ended March 31, 2018, the Company experienced cash outflows of \$2,425,470 (2017 – \$591,801) from operating activities. Investing activities used cash of \$12,408 (2017 – provided cash of \$406,831), of which \$5,388 (2017 - \$51,001) was used for the purchase of property and equipment. Bank indebtedness decreased by \$109,734 (2017 – rose by \$92,208) during the quarter. Financing activities realized inflows of \$2,437,164 representing the proceeds from private placement of \$1,501,260 (2017 - \$Nil), warrants exercised of \$333,362 (2017 - \$55,000) and proceeds from short-term note payable of \$750,000 (2017 - \$Nil). Overall, cash decreased by \$714, as compared to \$33,762 during the first three months of the prior year.

In management's opinion, the Company has sufficient working capital at this time to meet its current financial obligations and administration costs required to operate the Company. The Company's continuance as a going concern in the future will depend upon its ability to achieve and maintain profitable operations and positive cash flows from operations in the future and obtain adequate financing if necessary.

# **RISKS AND UNCERTAINTIES**

The Company is a relatively new company with limited operating history and, in addition to facing all of the competitive risks in the underwater sonar and acoustic sensor sector it will face all the risks inherent in developing a business including: access to capital, ability to attract and retain qualified employees, ability to attract and maintain customers and the ability to put in place appropriate operating and control procedures routines.

Industry specific risks include, but are not limited to:

- Competitive risk the sonar industry in which the Company operates is highly competitive. The competitors of the Company range from small single product companies to diversified corporations in the military, sonar and marine imaging industry. Some of the competitors of the Company may have more extensive or more specialized engineering, manufacturing, and marketing capabilities;
- Technology risk The future success of the Company will depend on its ability to develop new technologies that achieve market acceptance. The sonar market is characterized by rapidly-changing technologies and evolving industry standards;
- Protection of Intellectual Property: The Company may be unable to adequately protect its intellectual property rights, which could affect its ability to compete. Protecting the Company's intellectual property rights is critical to its ability to compete and succeed as a company. The Company currently has trademark registrations and relies on a combination of copyright, trademark, and trade secret laws, confidentiality procedures, contractual provisions and other measures to protect its proprietary information. However, all of these measures afford only limited protection;

- Outside suppliers: The Company's operations depend on component availability and the manufacture and delivery by key suppliers of certain products and services. Further, the Company's operations are dependent on the timely delivery of materials by outside suppliers. The Company cannot be sure that materials, components, and subsystems will be available in the quantities required, if at all;
- *Government contracts*: The Company will depend, in part, on government contracts, which may only be partially funded, subject to termination, heavily regulated, and audited. The termination of one or more of these contracts could have a negative impact on the operations of the Company; and
- *Competitive bidding*: The Company has the opportunity derive significant revenue from contracts awarded through a competitive bidding process, which can impose substantial costs upon it, and the Company could fail to maintain its current and projected revenue if it fails to compete effectively.

An investment in the Company's common shares is highly speculative and subject to a number of risks and uncertainties. Only those persons who can bear the risk of the entire loss of their investment should participate. An investor should carefully consider the risks described above and the other information filed with the Canadian securities regulators before investing in the Company's common shares. The risks described above are not the only ones faced. Additional risks that the Company currently believes are immaterial may become important factors that affect the Company's business. If any of these risks occur, or if others occur, the Company's business, operating results and financial condition could be seriously harmed and investors may lose all of their investment.

## CAPITAL MANAGEMENT

The Company's objectives when managing its capital are to maintain a financial position suitable for supporting its operations and growth strategies, to provide an adequate return to shareholders and to meet its current obligations.

The Company's capital structure consists of shareholders' equity (deficiency), bank indebtedness and short-term note payable. The Company makes adjustments to the capital structure depending on economic conditions, its financial position and performance. In order to maintain or adjust the capital structure, the Company may issue new shares, buyback shares or pay dividends, issue new debt and sell assets to reduce debt.

#### FINANCIAL INSTRUMENTS AND RISK MANAGEMENT

As at March 31, 2018, the Company's risk exposures and the impact of the Company's financial instruments are summarized below:

#### Credit Risk:

The carrying amount of financial assets represents the maximum credit exposure. The maximum exposure to credit risk at the reporting date was:

	March 31,	December 31,
	2018	2017
Trade and other receivables	\$ 375,636	\$ 1,487,373
Note receivable	171,690	163,674
Share subscriptions receivable	76,833	76,833
	\$ 624,159	\$ 1,727,880

The Company manages credit risk by holding the majority of its cash with high quality financial institutions in Canada, where management believes the risk of loss to be low.

The share subscriptions receivable are related to the exercise price of stock options exercised by employees during the year ended December 31, 2014.

#### Liquidity Risk:

Liquidity risk is the risk that the Company will encounter difficulty in meeting the obligations associated with its financial liabilities that are settled by delivering cash or another financial asset. The Company's approach to managing liquidity is to ensure, as far as possible, that it will always have sufficient liquidity to meet its liabilities when due, under both normal and

stressed conditions. As of March 31, 2018, the Company had a cash balance of \$Nil (December 31, 2017 - \$Nil) to settle current liabilities of \$6,540,189 (December 31, 2017 - \$4,722,736).

## Market Risk:

Market risk is the risk of loss that may arise from changes in market factors such as interest rates, foreign exchange rates, and commodity and equity prices.

(a) Interest rate risk

At March 31, 2018, the Company held a cash balance of \$nil and has drawn \$216,714 against its line of credit and \$750,000 against a short-term note payable, which bear interest at prime based rates and expose the Company to interest rate risk.

(b) Foreign currency risk

The Company's exposure to foreign currency risk is limited to sales in USD, GBP and EUR certain purchases of inventory in USD, GBP and EUR, and its note receivable. The Company does not use any form of hedging against fluctuations in foreign exchange.

#### Fair Value:

During the three months ended March 31, 2018, there were no transfers between level 1, level 2 and level 3 classified assets and liabilities. The fair values of the Company's financial instruments are considered to approximate the carrying amounts. The following table provides the disclosures of the fair value and the level in the hierarchy:

March 31, 2018	Level 1	Level 2	Level 3
Financial assets classified as loans and receivables:			
Cash	\$ -	\$-	\$-
Trade and other receivables	-	375,636	-
Investment tax credits recoverable	-	320,807	-
Note receivable	-	-	171,690
Investment	-	-	30,530
Share subscription receivables	-	76,833	-
Financial liabilities at amortized cost:			
Bank indebtedness	-	216,714	-
Short term note payable		750,000	-
Trade and other payables		2,881,278	-

#### **OFF-BALANCE SHEET ARRANGEMENTS**

The Company has no off-balance sheet arrangements as of March 31, 2018 and as at the date of this MD&A.

#### **USE OF ESTIMATES**

The preparation of financial statements in conformity with IFRS requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results may differ from those estimates. Estimates are reviewed on an ongoing basis based on historical experience and other factors that are considered to be relevant under the circumstances. Revisions to estimates on the resulting effects of the carrying amounts of the Company's assets and liabilities are accounted for prospectively.

#### **Revenue Recognition**

Application of the accounting principles related to measurement and recognition of revenue requires the Company to make judgements and estimates. The Company uses judgement to assess if its products and services are distinct, and should be accounted for as separate performance obligations, or together as a combined performance obligation. In arrangements

with multiple performance obligations, estimates are required to allocate revenue to each performance obligation in the contract.

For service contracts, the Company exercises judgement in determining the appropriate measure of progress for recognizing revenue over time. Estimates of proportional performance are required to recognize revenue including effort spent to date versus the total expected effort to deliver the services. When a percentage of completion estimate is used, estimates related to cost to complete are routinely revised based on changes in the facts relating to each contract.

## Allowance for Expected Credit Losses

The calculation of our expected credit losses is based on consideration of customer specific factors and historical factual credit loss experience. The expected credit loss is estimated at the reporting date in which a receivable from a contract with a customer is initially recorded, measured at an amount that reflects the lifetime expected credit loss. As a percentage of revenue, our actual credit loss experience has not been material. If there is deterioration in a customer's credit worthiness or actual defaults are higher than our historical experience, our estimates of recoverability for the accounts receivable could be adversely affected. We believe the amount of expected credit losses allowed for at March 31, 2018 of nil is reasonable.

## SUBSEQUENT EVENTS

Subsequent to March 31, 2018, the Company:

- (a) Announced its ThunderFish product had been pre-qualified under the Canadian BCIP program. This program pays up to C\$1,00,000 for military innovations. The Company is currently negotiating the completion of this contract. It has completed the Statement of Work with the test customer, Defence Research and Development Canada (DRDC). The final step is the issuance of a contract from Public Services and Procurement Canada (PSPC).
- (b) recorded the expiry of 250,000 incentive stock options priced at \$0.20.

## NEW AND REVISED IFRS ACCOUNTING PRONOUNCEMENTS

#### Impact of Adoption of IFRS 15:

The Company applied IFRS 15 using the cumulative effect method and has recognized the cumulative effect of initially applying IFRS 15 as an adjustment to the opening balance of equity at January 1, 2018. The comparative information has not been restated and continues to be reported under IAS 18 and IAS 11.

Previously, the Company recorded revenue from product sales using the percentage of completion basis. At the date of application of IFRS 15, the specific contracts in progress at the time did not meet the criteria in IFRS 15 to permit the recognition of revenue over time. As a result, amounts received in respect of such product sales have been reclassified from revenue to deferred revenue and amounts recorded in cost of sale have been reclassified to work on progress. The following table summarizes the impact of the transition to IFRS 15 on the Company's opening deficit at January 1, 2018:

	Balances at December 31, 2018	IFRS 15	Balances at January 31, 2018
<u>Assets</u>			
Trade & Other Receivables	1,487,373	(885,833)	601,540
Inventory	1,530,508	1,197,785	2,728,293
<u>Liabilities</u>			
Deferred Revenue	491,266	1,888,546	2,379,812
Equity			
Deficit	7,359,237	1,576,594	8,935,831

IFRS 9, Financial Instruments:

IFRS 9, Financial Instruments, replaces IAS 39, Financial Instruments: Recognition and Measurement, and some of the requirements of IFRS 7, Financial Instruments: Disclosures. The Objective of IFRS 9 is to establish principles for the financial reporting of financial assets and financial liabilities that will present relevant and useful information to users of financial statements for their assessment of the amounts, timing and uncertainty of an entity's future cash flows. The initial application date for IFRS 9 is January 1, 2018.

IFRS 9 largely retains the existing requirements in IAS 39 for the classification and measurement of financial liabilities. However, it eliminates the previous IAS 39 categories for financial assets of held-to-maturity, loans and receivables, and available for sale. The classification of financial assets under IFRS 9 is generally based on the business model in which a financial asset is managed and its contractual cash flow characteristics. Derivatives embedded in contracts where the host is a financial asset in the scope of the standard are never separated. Instead, the hybrid financial instrument as a whole is assessed for classification.

Cash and cash equivalents, and receivables that were classified as loans and receivables under IAS 39 are classified as financial assets measured at amortized cost. There is no change to the initial measurement of these financial assets.

The investment in Kraken Power GmBH is classified as fair value through profit or loss. The note receivable and embedded conversion option that were previously accounted for separately under IAS 39 are classified together under IFRS 9 as fair value through profit or loss, whereas under IAS 39, the note receivable was measured at amortized cost and the derivative asset was carried at fair value through profit or loss.

IFRS 9 also replaces the 'incurred loss' model in IAS 39 with an expected credit loss ("ECL") model. ECL's are a probabilityweighted estimate of credit losses. The Company calculated ECL's based on consideration of customer-specific factors and factual credit loss experience over the past five years. As a percentage of revenue, the Company's actual credit loss experience has not been material. There has been no material impact on the adoption of IFRS 9 on the Company's financial statements at January 1, 2018.

The following new standards, and amendments to standards and interpretations under IFRS, are not yet effective and have not been applied in preparing these condensed consolidated interim financial statements.

#### IFRIC 23, Uncertainty over Income Tax Treatments:

The Interpretation provides guidance on the accounting for current and deferred tax labilities and assets in circumstances in which there is uncertainty over income tax treatments. It requires an entity to contemplate whether uncertain tax treatments should be considered separately, or together as a group, based on which approach provides better predictions of the resolution. Probability will be determined whether the tax authorities will accept the uncertain tax treatment, and if it is not probable that the uncertain tax treatment will be accepted, they will measure the tax uncertainty based on the most likely amount or expected value, depending on whichever method better predicts the resolution of the uncertainty. The Company intends to adopt the Interpretation in its financial statements for the annual period beginning on January 1, 2019. The Company does not expect the Interpretation to have a material impact on the financial statements.

#### IFRS 16, Leases:

In January 2016, the IASB issued IFRS 16 *Leases*. This standard introduces a single lessee accounting model and requires a lessee to recognize assets and liabilities for all leases with a term of more than 12 months, unless the underlying asset is of low value. A lessee is required to recognize a right-of-use asset representing its right to use the underlying asset and a lease liability representing its obligation to make lease payments. This standard substantially carries forward the lessor accounting requirements of IAS 17, while requiring enhanced disclosures to be provided by lessors. Other areas of the lease accounting model have been impacted, including the definition of a lease. Transitional provisions have been provided. The new standard is effective for annual periods beginning on or after January 1, 2019. The extent of the impact of the adoption of the standard has not yet been determined.

#### OUTSTANDING SHARE DATA AS AT MAY 30, 2018:

(a) Authorized and issued share capital:

Class	Par Value	Authorized	Issued Number
Common	No par value	Unlimited	104,037,767

#### (b) Summary of options outstanding:

Security	Number	Number Exercisable	Exercise Price	Expiry Date
Options	100,000	100,000	0.21	July 1, 2018
Options	600,000	500,000	0.15	October 12, 2019
Options	300,000	200,000	0.15	December 1, 2019
Options	2,000,000	1,250,000	0.21	June 1, 2020
Options	150,000	150,000	0.17	March 8, 2020
Options	350,000	116,667	0.17	September 8, 2020
Options	300,000	100,000	0.18	October 4, 2020
Options	1,770,000	590,000	0.18	December 15, 2020
Options	450,000	0	0.185	February 20, 2021
	6,020,000	3,006,667		

### (c) Summary of warrants outstanding:

Security	Number	Exercise Price	Expiry Date
Warrants	3,579,767	0.30	August 12, 2018
Warrants	116,666	0.30	August 22, 2018
Warrants	5,903,330	0.30	April 11, 2019
	9,599,763		

(d) Summary of escrowed shares: At the date of this report, there are a total no common shares subject to escrow restrictions. The final escrow shares were released on February 18, 2018.

#### DISCLOSURE CONTROLS AND PROCEDURES AND INTERNAL CONTROLS OVER FINANCIAL REPORTING

Disclosure controls and procedures ("DC&P") are intended to provide reasonable assurance that material information is gathered and reported to senior management to permit timely decisions regarding public disclosure. Internal controls over financial reporting ("ICFR") are intended to provide reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated financial statements for external purposes in accordance with IFRS accounting principles.

TSX Venture-listed companies are not required to provide representations in their annual and interim filings relating to the establishment and maintenance of DC&P and ICFR, as defined in Multinational Instrument MI 52-109. In particular, the CEO and CFO certifying officers do not make any representations relating to the establishment and maintenance of (a) controls and other procedures designed to provide reasonable assurance that information required to be disclosed by the issuer in its annual filings, interim filings or other reports filed or submitted under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation, and (b) processes to provide reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated financial statements for external purposes in accordance with the issuer's GAAP.

### **OTHER INFORMATION**

Additional information regarding the Company is available on SEDAR at <u>www.sedar.com</u> and on the Company's website at <u>www.krakenrobotics.com</u>.