



PATRIOT ONE TECHNOLOGIES INC.

Management's Discussion and Analysis

Three and six months ended January 31, 2020

The following Management's Discussion and Analysis ("MD&A") is prepared as of March 2, 2020 and is intended to assist in understanding the results of operations and the financial condition of Patriot One Technologies Inc. (the "Company"). Throughout the MD&A, reference to the Company is on a consolidated basis. This MD&A should be read in conjunction with the unaudited interim consolidated financial statements for the three and six months ended January 31, 2020 which are prepared in accordance with International Financial Reporting Standards ("IFRS"). All amounts in this MD&A are expressed in Canadian Dollars unless otherwise indicated.

Forward-Looking Information

This MD&A contains forward-looking information that involves material assumptions and known and unknown risks and uncertainties, certain of which are beyond the Company's control. Such assumptions, risks and uncertainties include, without limitation, those associated with loss of markets, expected sales, future revenue recognition, currency fluctuations, the effect of global and regional economic conditions, industry conditions, changes in laws and regulations and how they are interpreted and enforced, the lack of qualified personnel or management, fluctuations in foreign exchange or interest rates, demand for the Company's products, and availability of funding. The Company's performance could differ materially from that expressed in, or implied by, this forward-looking information and, accordingly, no assurances can be given that any of the events anticipated by the forward-looking information will transpire or occur, or if they do so, what benefits the Company will derive therefrom. The forward-looking information is made as of the date of this MD&A, and the Company does not undertake any obligation to update publicly or to revise any of the included forward-looking information, whether as a result of new information, future events or otherwise, except as may be required by applicable securities laws. Actual events or results could differ materially from the Company's expectations and projections.

Corporate Structure and Profile

The Company's common shares are listed for trading on the TSX under the trading symbol "PAT". The Company is a reporting issuer in British Columbia, Alberta, Saskatchewan, Manitoba and Ontario. The principal regulator of the Company is the British Columbia Securities Commission.

As at January 31, 2020, the Company had five wholly-owned subsidiaries, Patriot One Detection Ltd, a limited company incorporated under the laws of British Columbia, Canada, Patriot One (UK) Limited, a limited company incorporated under the laws of England, Patriot One Detection Technologies Inc., a limited company incorporated under the laws of the state of Colorado, United States of America, EhEye Inc., a limited company incorporated under the laws of the province of New Brunswick and Xtract Technologies Inc. ("Xtract"), a limited company incorporated under the laws of British Columbia, Canada.

The Company has a 49% equity interest in Sotech Secure, LLC ("Sotech"), an incorporated entity formed under the laws of the State of Delaware.

Business of the Company

The principal business of the Company is to commercialize an integrated, layered, multi-sensor platform of technologies, referring to as the "PATSCAN™ platform", with the aim of reducing the threat of mass casualty events. The Company's mission is to be the foremost global proponent and provider of innovative threat detection and counter terrorism solutions and services for general public safety. The Company has not commenced material commercial operations as of January 31, 2020.

Operations and Overall Performance

During the six months ended January 31, 2020, the Company has continued the commencement of a strategic, deliberate, roll-out of its platform technologies with a select small group of resellers and early-adopter customers, aiming to identify and understand the optimal deployment scenarios. While certain refinements, enhancements, additions, and other such modifications are expected to be made, the Company has commenced charging these select early-adopter customers at early-adopter price points. The purposely constrained number of early deployments are critical for both the Company and its reseller partners to learn the intricacies of deploying the technology in differing environments, representing a swath of real world variables that will ultimately need to be understood, addressed, and supported for wide ranging commercial operations. The current deployments are creating the environment and conditions for the Company to deploy its platform technologies at scale. The Company believes these controlled deployments, along with the lessons learned therein, are a critical prerequisite to an effective rapid scale up across a large number of reseller and integration partners. In line with expectations, the Company has gleaned a series of valuable insights and observations from these early-adopter deployments which have driven certain enhancements, improvements and areas of further development for the various engineering resources to address in the advancement of the technology, as well as training channel partners in the effective installation and troubleshooting of systems. Client expectations, use-cases, and minimum operating parameters have become clearer through these early-adopter deployments. These invaluable observations assist the Company in the evolution of its commercialization efforts.

The Company's primary aim at this stage remains the identification and creation of conditions, parameters, and deployment scenarios for effective distribution, implementation, and acceptance at scale. Through a select number of key deployments with strategic reseller and integration partners, along with select flagship early-adopter end-user clients, the Company is refining the processes, documentation, optimal deployment scenarios and other variables necessary for wide scale success in diverse environments, as well as supply chain optimization..

With the addition of the significant expertise that the Xtract team has brought through the acquisition in September 2019, the Company continues its efforts to develop the accuracy, efficacy and utility of the PATSCAN platform in real world environments, to which the Xtract team is contributing significantly. In addition to the technical expertise and contributions being made to the furtherance of the functionality of the PATSCAN platform technologies, Xtract is contributing positively to the overall Company results through arms-length third party, profitable contracts to develop artificial intelligence tools for use-cases, many of which are adjacent, or overlapping, to the security and public safety objectives the Company aims to address with its PATSCAN platform technologies.

The Company has benefited from a prominent public profile and effective vision to solidify relationships of various natures with certain industry leaders, including Cisco Systems Inc., Johnson Controls Inc., Raytheon Canada Ltd., Ridge Global LLC, and the University of North Dakota ("UND") along with the UND police force. In addition to the previously announced partnerships, of which a select number are noted above, the Company is pleased with securing a contract through the Scientific Commodities and Projects Division of Public Works and Government Services Canada, in partnership with Innovation Solutions Canada for the testing and deployed evaluation of its covert threat detection technologies. In the Company's view, these partnerships will continue to serve the Company's product development, internal technical capabilities and the successful deployment of the PATSCAN platform. The willingness of industry leaders to form partnerships of various natures with the Company is a further validation of the appetite for these solutions to address real-world mass casualty threats and in the Company's view offers a prominent source of technical, financial and industry validation that will significantly benefit the Company's advancement to full-scale commercial operations. In the meantime, they also provide a steadily increasing flow of revenue.

Comparison of the three and six months ended January 31, 2020 and 2019

	<u>Three months ended January 31,</u>		<u>Six months ended January 31,</u>	
	<u>2020</u>	<u>2019</u>	<u>2020</u>	<u>2019</u>
Revenue	\$ 402,017	\$ -	\$ 518,591	\$ -
Other income - interest	106,682	125,923	311,172	282,213
Expenses				
Research and development	\$ 1,571,200	\$ 834,158	\$ 2,727,999	\$ 1,749,426
Business development, advertising and marketing	1,192,169	1,138,628	2,602,532	2,426,177
Personnel	1,284,482	661,066	2,225,238	1,150,491
General and administration	773,330	714,990	3,360,109	1,357,705
Total cash costs	4,821,181	3,348,842	10,915,878	6,683,799
Other non-cash costs	1,874,405	508,229	3,408,349	1,931,803
Loss and comprehensive loss	\$ 6,186,887	\$ 3,731,148	\$ 13,494,464	\$ 8,333,389
Basic and diluted loss per share	\$ (0.04)	\$ (0.03)	\$ (0.09)	\$ (0.07)

Overall Results

Overall cash costs for the three months ended January 31, 2020 were \$4,821,181, compared with \$3,348,842, an increase of \$1,472,339 or 44% over the same three month period in the prior year. Overall loss and comprehensive loss for the three months ended January 31, 2020 was \$6,186,887 compared with \$3,731,148, an increase of \$2,455,739 or 66% over the same three month period in the prior year. Overall cash costs for the six months ended January 31, 2020 were \$10,915,878, compared with \$6,683,799, and increase of \$4,232,079 or 63% over the same six month period in the prior year. Overall loss and comprehensive loss for the six months ended January 31, 2020 was \$13,494,464, compared with \$8,333,389, an increase of \$5,161,075 or 62% over the same six month period in the prior year. The increase cash costs over the three and six month periods ending January 31, 2020 as compared to the same periods in the prior year are attributable to the expenditures being made on a wider portfolio of products under commercial development, the non-recurring costs associated with acquiring Xtract explained in the General and Administrative section below, and the further expenditures incurred relating to the creation of the business processes and associated personnel resources to support the commercialization efforts of the technology portfolio.

Revenue

The Company has recorded \$402,017 of revenue through the Xtract operating segment during the three months ended January 31, 2020 and \$518,591 of contract revenue during the six months ended January 31, 2020, relating to a small number of contracts that were either in progress or previously scheduled to commence at the time of acquisition. There were no comparable figures from this operating segment during the three or six month periods ending January 31, 2019 as the acquisition occurred on September 6, 2019.

The Company believes that there are plentiful opportunities in furtherance of this revenue stream and has commenced augmenting the operational capacity of the data science and machine learning team at Xtract through additional hiring activities, with the aim of being able to allocate resources between the internal development and furtherance of the PATSCAN platform research and development activities and the arms-length third party term-based contracts that Xtract had previously been exclusively focused on. Some of the recent revenue generating opportunities generated by the Xtract team also include elements of the core PATSCAN offering, for example weapons detection notification in heads up displays.

The Company has not recorded any revenue through the PATSCAN operating segment. However, the Company has commenced receiving purchase orders, billing and receiving cash for orders of the PATSCAN platform hardware and software components, following an extensive phase of client and reseller demonstrations. As of January 31, 2020, the Company has \$308,594 of deferred revenue recorded relating

to the early-adopter sales of the PATSCAN technologies. In accordance with the contractual terms of the sales, the Company's resellers have a pre-defined period so that the deliverables function, operate, perform, and generate results in their specific environments that meet or exceed the specifications and requirements outlined in the design specifications, or as otherwise specified in writing and agreed to by the resellers. These early adopter resellers have communicated their intentions to commit to larger orders once they are satisfied with the performance of initial deployments.

It is the belief of management that the commencement of billing and associated cash inflows from these early adopter deployments, with a select and small number of early adopter resellers and end-users, is a reflection of the success of the product in real world operating environments, and a validation of the commercialization efforts that are underway to be able to advance to wide-scale commercial sales activity.

Research and development

Research and development costs increased 88% or \$737,042 and 56% or \$978,573 during the three and six month periods ending January 31, 2020 as compared with the same periods in the prior year. The increase is predominantly attributable to the investments being made in the combining of sensor technologies onto a single platform along with the efforts underway to fuse sensor data into a combined algorithmic threat analysis. Further, the Company has widened the scope of development streams to focus on a larger number of technology offerings, representing short, mid and long-term initiatives. Non-dilutive funding of \$116,600 and \$365,600 was recorded as an offset to research and development costs during the three and six month periods ending January 31, 2020, with no comparable funding offset recorded during the same periods in the prior year.

Business development, advertising and marketing

Business development, advertising and marketing costs increased 5% or \$53,541 and 7% or \$176,355 during the three and six month periods ending January 31, 2020 as compared with the same periods in the prior year. The costs encompass reseller support, attending tradeshow and conferences along with strategic expenditures relating to the visibility of the Company within the wider investment community.

Personnel

Personnel costs, excluding those costs associated with research and development increased 94% or \$623,416 and 93% or \$1,074,747 during the three and six month periods ending January 31, 2020 as compared with the same periods in the prior year. The increase relates to the acquisition of new technologies and investment in sales, marketing, operations, finance, and corporate administration necessary to advance into commercial operations.

General and administration

During the three month period ended October 31, 2019, non-recurring fees and costs associated with the acquisition of Xtract of approximately \$1,500,000 were included in general and administration expenses. Excluding these non-recurring fees, General and administrative costs increased 8% or \$58,340 and 37% or \$502,404 during the three and six month periods ending January 31, 2020 as compared with the same period in the prior year. The balance of the increase is attributable to the growth of the administrative costs, information technologies (including cyber security), and associated overhead components, including physical occupancy costs as the Company develops and grows the requisite infrastructure to support commercialization efforts, regulatory and reporting requirements and associated objectives and requirements.

Acquisition of Xtract

On September 6, 2019, the Company acquired 100% of the issued and outstanding shares of Xtract, a limited company incorporated under the laws of British Columbia, Canada. Through the integration of the Xtract data science team, the Company is progressing with advancing the integration of the various sensor technologies to further enhance the accuracy, effectiveness, and real-world utility of the PATSCAN platform. Leveraging data from various sensors in real-time, the Company aims to fuse these sensor data streams into a comprehensive, holistic threat analysis assessment, the accuracy of which will supersede that of any of the sensors alone. The Company continues to see successes and believes there is significant opportunity for improvement in both the accuracy and false positive rates of the overall threat classification from these ongoing efforts.

Included within the consolidated figures for the six months ended January 31, 2020 is contract revenue of \$402,017 (three months ended October 31, 2019 contract revenue of \$116,574), relating to the arms-length contracts for the development of artificial intelligence tools for public sector clients.

Selected Financial Data - Summary of Quarterly Results (in 000's)

	Quarter Ended							
	Jan 31, 2020	Oct 31, 2019	Jul 31, 2019	Apr. 30, 2019	Jan 31, 2019	Oct 31, 2018	Jul 31, 2018	Apr 30, 2018
Revenue								
Contract Revenue	\$ 402	\$ 117	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Expenses								
Research and development	1,571	1,157	\$ 638	\$ 385	\$ 834	\$ 915	\$ 1,888	\$ 1,320
Business development, advertising and marketing	1,192	1,411	1,039	1,782	1,139	1,288	897	689
Personnel	1,285	941	915	773	661	489	610	361
Other cash costs	774	2,588	998	796	715	642	566	514
Loss before undernoted items	(4,420)	(5,980)	(3,590)	(3,736)	(3,349)	(3,334)	(3,961)	(2,884)
Interest income	107	204	301	278	126	-	-	-
Other non-cash costs	(1,874)	(1,532)	(1,782)	(689)	(508)	(1,424)	(525)	(351)
Loss and comprehensive loss	\$ (6,187)	\$ (7,308)	\$ (5,071)	\$ (4,147)	\$ (3,731)	\$ (4,758)	\$ (4,486)	\$ (3,235)
Basic and diluted loss per share	\$ (0.04)	\$ (0.05)	\$ (0.03)	\$ (0.03)	\$ (0.03)	\$ (0.04)	\$ (0.04)	\$ (0.03)
Working capital	\$ 31,908	\$ 37,170	\$ 51,899	\$ 62,866	\$ 70,036	\$ 31,388	\$ 32,969	\$ 36,498
Total assets	\$ 75,141	\$ 83,088	\$ 69,220	\$ 72,304	\$ 76,761	\$ 33,410	\$ 34,292	\$ 37,489
Non-current liabilities	\$ 635	\$ 703	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

The quarterly expenditure trend above reflects the fiscal 2019 evolution from a single product focused strategy in 2018 to the current multi-sensor platform solution strategy. The Company's primary objective remains the generalized function of an integrated platform-based technology solution, using various sensor technologies. The general trend of increased expenditures across the various cost categories reflects the investments being made throughout the organization to achieve this goal, as well as the organisational capacity to support commercialisation at scale. As appropriate, and in conjunction with the business needs, certain additional investments and expenses will be incurred to adequately and sufficiently support the Company's primary objectives.

Economic and industry factors and substantially unchanged since the completion of most recent annual MD&A.

The Company has no discontinued operations.

Revenue Streams and Market Opportunity

The Company plans to distribute products and services through a channel model, partnering with leading providers of security products and services. Management is in conversations (and a number of active partnerships) with industry leading full-service commercial security systems companies, such as Cisco Systems and Johnson Controls International, that have a global presence providing integrated security solutions to resell and promote the Company's products as part of security installations globally.

The Company will also be earning revenue through arms-length public and private sector contracts to develop AI tools and features in accordance with the terms of those contracts.

The safety and security market is a very competitive market. Growing threats from man-made tragedies underpin higher rates of growth in this market worldwide. Recently, security/software-as-a-service, integration of command and control systems with communication systems and advanced imaging technology are gaining higher market shares. The PATSCAN platform can be positioned in public and private spaces used by many operators in a variety of use cases, who can enjoy unhindered access flows. Some of the spaces identified as compromised entrance points are:

- (1) airports, subways and other general public transportation systems;
- (2) public schools and other educational facilities;
- (3) embassies, consulates and trade offices;
- (4) athletic and entertainment-focused stadiums/arenas; and
- (5) places of worship
- (6) tourism and hospitality venues

Principal Technologies in the PATSCAN Platform

PATSCAN VRS™

The Company is in the process of commercializing the proprietary automation software technology, branded as the PATSCAN™ Video Recognition Software ("VRS"). The Company's VRS threat detection video surveillance solution can now help security personnel to quickly detect weapons, public disturbances and suspicious behaviour. These "incidents of interest" are quickly displayed to onsite security personnel in real-time, allowing personnel to respond to situations quickly and effectively to keep guests, staff and patrons safe from active threats and threatening behaviour. Using computer vision techniques to automate the review and analysis of digital video footage, the VRS software puts deep learning architecture to work – alerting security teams to both anticipated and unanticipated anomalies that a standard system cannot identify. The Company has completed a series of technical integrations that enable the system to generate and execute certain capabilities with complementary hardware and software solutions, such as the automatic locking of doors or turnstiles when a threat is detected, or the automatic dissemination of a threat notification through a software-based threat notification apparatus. The Company is continually evolving and expanding the nature of these partner integrations, with the belief that the automatic extension of the threat notification to actioned physical or non-physical security solutions will enhance the overall utility of the system and provide the user's security apparatus capabilities that enhance abilities to mitigate threats in a more timely and effective manner.

The Company has rapidly advanced the commercial readiness of the PATSCAN VRS™ and the first commercial deployments are underway. Early-adopter deployments have been underway for months and current efforts include final stages of quality control activities and related planning activities along with the finalization of commercial terms of sale. Initial deployments were and are representative of a wide variety of markets, including education, retail and public sector. The Company has placed an initial multimillion-dollar purchase order for the hardware components on which the software-based solution for VRS and other sensors will run. Upon successful completion of on-site performance evaluation, the Company will be offering the product for full commercial sale to all interested parties.

The Company's efforts in evaluating and sourcing hardware for the first-generation product, and optimizing functionality on lower cost, more powerful hardware, is being supported by leading edge industry partners, particularly Cisco Systems, including the evaluation, support, and sourcing of edge and cloud-based offerings.

Further to the initial version offered for commercial sale, the Company has a robust development pipeline of complementary detection capabilities that have been identified based on specific market needs and reiterated by early-adopter customers, including fight and disturbance detection as a separate module. Further to these efforts, the Company is developing and evaluating alternative deployment methods, including cloud-based deployments and on-edge deployments with leading video camera original equipment manufacturers. Subsequent versions of the software product are expected to be rolled out iteratively, with commercially available integrated solutions from third party service and hardware providers.

PATSCAN TMS™

The Company has acquired from Quasar Federal Systems, Inc. ("Quasar") a perpetual, worldwide, exclusive, fully paid-up, transferable and irrevocable license (with a right of sublicense) and is in the process of developing a targeted magnetic sensor system, branded as PATSCAN™ Targeted Magnetic Signature identification ("TMS"), utilizing a unique passive sensor array to detect concealed weapons on people and in bags. Subsequent to the licensing agreement signed with Quasar in June 2019, the Company has expeditiously developed a first-generation beta-system based off of the licensed technology.

The PATSCAN TMS system will be deployable covertly in schools, stadiums, concert halls, shopping centres and other entryways into private, public or secured buildings to prevent mass casualty attacks and other incidents of violence. Target-selective detection along with covert configuration deployment allows for rapid processing through security checkpoints unlike conventional metal detector portals. As with the other suite of sensor products, the PATSCAN TMS™ is being developed with continuously evolving algorithms that are remotely upgradable to periodically provide new targets and threat objects of interest.

A first-generation system is currently being tested, with real-world, large-scale data gathering exercises supporting the algorithm development and refinement of the machine learning back end. The Company is encouraged by initial results and continues to work with the developed sensor array to refine and improve the detection capabilities utilizing real-world training and test data sets. Initial early-adopter deployments for customer feedback and deployment refinement are underway, along with integration with our radar solution for sensor fusion.

PATSCAN CMR™

The Company has licensed the PATSCAN Cognitive Microwave Radar technology ("CMR"), for which the base patented approach to detecting concealed on-body weapons was developed at McMaster University. The Company's license is to develop, license, manufacture and market the CMR systems worldwide. The Company intends to use such technology to create an automatic warning system for screening of on-body concealed weapons (e.g., handguns, knives, grenades, explosive vests, etc.). The CMR's early warning capability is designed to extend threat perimeter and improve response times. The CMR uses low power impulse radar system for the stand-off detection of on-body concealed weapons. The Company aims to make the technology compact and is working to fully train its CMR systems to recognize various weapons and non-threat targets (i.e., unarmed civilians) in the multiplicity of real world environments before full scale commercial deployment. The Company believes this technology has extensive potential for use in enhancing military and or law enforcement capabilities, as well as commercial applications, particularly integrated with the TMS; a development project which is well advanced.

The Company is engaged in furthering the capability of the radar-based threat detection solutions through other proprietary and complementary approaches that are in varying degrees of technological readiness. The Company believes a series of distinct and integrated approaches will serve to expand the capabilities of the product range by offering differing and complementary capabilities, such as long-range, short-range, mobile, high-throughput, low-throughput, and lower cost alternatives that are aimed at fulfilling customer needs across a wide swathe of use cases. The Company further believes that each of the various technological approaches could supplement the accuracy and detection capabilities of the various other sensor technologies in the portfolio, along with future additional sensor systems that could augment the current sensor set. This is particularly so, with the sensor fusion approach adopted by the company.

Currently the Company is engaged in acquiring real world data from test subjects in various client environments and evaluating the accuracy, efficacy and utility of these systems in these real-world environments. The acquisition of data from varying locations, body types, environmental factors such as temperature, humidity, signal and physical clutter and various other factors is being undertaken to further strengthen the machine learning engine's ability to classify mass casualty threat objects, along with reducing false positives.

The Company is engaged with and in continuous discussions with a mix of academic institutions, reseller partners, and interested end-user clients with regards to initial test deployments. Initial beta-deployments, both paid and unpaid, will continue as system hardening and work around generalization for diverse environments continues.

It is possible that modifications to regulatory approvals or other certifications may be required as development continues. Moving beyond a minimum viable product for early adopter installations, the Company may need to make submissions to FCC and Industry Canada (as well as other jurisdictions in due course) for the use, for example, of additional power or additional frequencies in certain specific environments to enhance performance, which will require demonstrating, among other things, that there are no harmful health effects or interference with critical systems. Active work by the Company is underway in this respect. While any such further regulatory approvals are not assured, the company is not aware of any specific existing regulatory obstacles to the development approach being undertaken.

PATSCAN STS™

Through the investment in Sotech, the Company is developing the PATSCAN STS™, powered by Sotech Secure ("STS"), a technology for the stand-off detection of explosives and other threats such as chemical and biological agents as well as illicit narcotics. The innovative technology includes the ability to function covertly in non-invasive deployments and operate as a stand-alone solution or integrated with related threat detection systems under the common PATSCAN Platform.

The Company continues to support and fund the activities of Sotech in developing and advancing the PATSCAN STS™ technology. A large component of the costs incurred in fiscal 2020 are non-recurring in nature as they were related to completing a lab facility for STS development. The development and commercialization efforts are advancing in line with the expected and planned development timeline. This unique technology is approaching market readiness and discussions are well underway with significant government agencies and commercial firms for possible deployment within their facilities. Multiple threats can be detected with this product.

The Company expects initial client field pilots to commence in the spring of 2020 for select prominent interested parties.

OTHER TECHNOLOGIES

The Company is continuously evaluating complimentary and auxiliary technologies that could enhance and augment the PATSCAN™ product portfolio and provide further capabilities to the end-users in meeting the objective of reducing the active threats. Through discussions with interested end-users, existing and prospective reseller entities, government agencies and lawmakers, industry partners, and competitors alike, the Company has identified a series of sensor-based technologies and complementary software applications that could augment the Company's current product portfolio and ultimately, enhance the capabilities of the Company's product platform in being able to reduce the risk of mass casualty events in a wider variety of possible use cases. Evaluation is ongoing.

The Company believes that it currently has a complete portfolio of technologies and that further acquisitions are not a primary focus at this time. Given the Company's strong financial and cash position, it will continue to passively assess acquisitions that could augment the product portfolio in a strategic manner. Announcements with regards to any such acquisition, licensing or partnerships will be made in accordance with the terms of the relevant agreements.

Regulatory Approval

The Company has received U.S. Federal Communications Commission ("FCC") Declaration of Conformity certification for its CMR version 1. With the achievement of this milestone, the Company holds both FCC and Industry Canada certification for the CMR 1.0. FCC and Industry Canada certification allowed the Company to take the CMR 1.0 hardware out into real world environments for trials, testing and optimization. This was a critical component in the development process of CMR 1.0 and allowed the Company to make significant system performance enhancements in moving toward commercialization. However, development work on our radar solution is continual and new and updated variants will require similar certifications for both testing and commercial roll-out. The Company has filed several additional applications with the FCC to ensure that the relevant versions of CMR continue to follow all rules and regulations as stipulated by the FCC, and other regulatory regimes, and meet the needs of the test, pilot-programs and commercial deployment scenarios of the Company. The Company is also required to adhere to and comply with certain FCC requirements for the TMS (which are considerably lighter, as a passive system with no emissions).

There will be a continuous program of submissions for any such requirements and the Company will need to hire specialist in-house resources to complete them. The Company is currently building out such capabilities internally while working with third party consultants to advise on compliance of such requirements.

Liquidity and Capital Resources

Liquidity risk is the risk that the Company will encounter difficulty in satisfying financial obligations as they become due. The Company manages its liquidity risk by forecasting cash flows from operations and anticipated investing and financing activities. The Company's objective in managing liquidity risk is to safeguard our ability to continue as a going concern and to sustain future development of the business. Our objective is met by retaining adequate cash reserves to provide for the possibility that cash flows from operations will not be sufficient to meet future cash flow requirements. In order to maintain or adjust our capital structure, we may issue shares, such as through private placements described below. The Board of Directors does not establish quantitative return on capital criteria for management. The Company is not subject to any externally imposed capital requirements.

As at January 31, 2020, the Company had working capital of \$31,907,652, which included cash and cash equivalents of \$30,433,878 available to meet current liabilities of \$1,904,902 and other short-term business requirements. The Company's accounts payable and accrued liabilities have contractual maturities of less than 30 days and are subject to normal trade terms. The Company has non-current liabilities of \$635,128, related to the long-term portion of the capitalized lease liability in accordance with IFRS 16.

During the six months ended January 31, 2020, the Company had negative cash flow from operations, investing and financing activities of \$20,204,064, and a net loss from operations of \$13,949,464 as the Company has not yet achieved material commercial operations and continues with the research and development, business development and marketing of its technology and products. Included in the net loss from operations was non-cash share-based compensation of \$1,129,128, and other non-cash costs of \$2,279,221.

As at the end of quarter, the Company has no material earnings from operations. The primary source of cash flows for the Company have been equity private placements. The primary uses of cash are operating expenses, including product research and development, the addition of complementary sensor technologies through acquisition or licensing and the marketing, business development and sales efforts to introduce and gain acceptance of these technologies in the marketplace. The Company intends to finance its future cash requirements through a combination of debt and/or equity issuance and cash flow from the commercial sales of the PATSCAN platform. There is no assurance that the Company will be able to obtain such financings or obtain them on favourable terms, nor is there assurance that revenue in the short and mid-terms will sufficiently materialize to fund ongoing operations. The Company believes without any further equity or debt financing, there is sufficient cash resources to fund ongoing operations, along with working capital requirements beyond the end of fiscal 2021.

As of January 31, 2020, the Company has contractual commitments as follows:

	Total	Within 1 year	1 to 3 years	After 4 years
Trade and other payables	1,085,983	1,085,983	-	-
Operating leases	1,292,976	531,710	761,266	-
	\$ 2,378,959	\$ 1,617,693	\$ 761,266	\$ -

Our objective in managing capital is to safeguard our ability to continue as a going concern and to sustain future development of the business. In the management of capital, we include shareholders' equity, excluding accumulated other comprehensive income. Our objective is met by retaining adequate equity to provide for the possibility that cash flows from operations will not be sufficient to meet future cash flow requirements. In order to maintain or adjust our capital structure, we may issue shares. The Board of Directors does not establish quantitative return on capital criteria for management. The Company is not subject to any externally imposed capital requirements and our overall strategy with respect to capital management remains unchanged from the fiscal quarter ended October 31, 2019.

The Company has entered into an agreement with Bullrun Capital Inc. ("Bullrun") wherein Bullrun agreed to assign to the Company its option (the "Option Agreement") to obtain from McMaster University ("McMaster") a worldwide exclusive license to use or cause to be used certain radar technology used to detect concealed weapons (the "License Agreement") invented, developed and/or acquired by McMaster. Pursuant to this Option Agreement, the Company granted Bullrun a 2% royalty (the "Bullrun Royalty") to be paid on net sales of all commercial products developed under the License Agreement between McMaster and the Company. This royalty payable to Bullrun are in addition to any royalties to be paid to McMaster by the Company. As of January 31, 2020, no amounts related to the Bullrun Royalty are due or owing.

The Company has entered into a license agreement with McMaster University ("McMaster"). In consideration, the Company paid an up-front license fee of \$10,000 and issued 1,560,000 common shares with a fair value of \$78,000 to McMaster. In addition, the Company agreed to pay a royalty percentage of 3.5% on net sales relating to the commercialized technology associated with the licensed intellectual property.

Thereafter, no additional shares shall be due to McMaster. As well, the Company agreed to make minimum annual royalty payments of \$2,500 for each of the first two years, \$5,000 for the third year and \$7,500 for the fourth year and subsequent years.

Use of Proceeds Expended from Bought Deal Financings

Use of Proceeds Category	Net Proceeds Allocated in October 2017, February 2018 and November 2018 Bought Deal Financing, Including Over Allotment	Approximate amount spent by the Company for the Period October 25, 2017 through January 31, 2020	Proceeds unspent as at January 31, 2020
Product Development	\$29,108,000	\$11,192,000	\$17,916,000
Reserved for Potential Acquisitions of Complementary Technology	\$6,900,000	\$14,000,000	(\$7,100,000)
Sales and Marketing	\$8,786,000	\$6,690,000	\$2,096,000
Production and Operations	\$8,795,000	\$7,212,000	\$1,583,000
General and Administration	\$9,770,000	\$6,945,000	\$2,825,000
International Business Development	\$6,344,000	\$2,945,000	\$3,399,000
Working Capital	\$7,322,000	N/A	N/A
Total	\$69,703,000	\$48,985,000	\$20,718,000

In addition to the above noted expenditures, certain expenditures have been capitalized in accordance with the Company's stated accounting policies. This would include items such as the purchase of property, plant, equipment, the advancement of funds to Sotech Secure LLC, and other such changes in working capital, such as capitalized prepaid expenses and the procurement of inventory.

The Company's intention to spend the net proceeds of the Offering as set forth above were based on the expectations of Patriot's management at the time of the financing raises. However, there may be circumstances where, for sound business reasons, a reallocation of funds may be necessary. At the current time, there are no significant changes to the business objectives and milestones and the Company does believe the current objectives and milestones are achievable with the current spending trajectory.

Financial Instruments and other instruments

The Company's only material financial instrument is cash.

The Company's risk exposures and the impact on our financial instruments are summarized below:

Liquidity risk

Our objective in managing liquidity risk is to ensure sufficient liquidity to meet financial obligations when due by maintaining sufficient cash and cash equivalents to settle current liabilities and meet anticipated working capital requirements. As of January 31, 2020, the Company had cash and cash equivalents of \$30,433,878 to settle current liabilities of \$1,904,902. Further discussion regarding our ability to manage our liabilities is discussed in the Liquidity and Capital Resources section above.

Credit risk

Credit risk is the risk of loss associated with a counterparty's inability to fulfill its payment obligations. We manage credit risk by requiring payment from customers prior to shipment, where possible.

Market risk

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

Interest rate risk

The Company has cash balances and no debt and therefore is not significantly exposed to fluctuating interest rates. Our current policy is to invest excess cash in a savings account or guaranteed investment certificates at our banking institution.

Foreign currency risk

The Company enters into certain transactions denominated in US dollars for which the related accounts payable balances are subject to exchange rate fluctuations. As of this time, we do not hedge our exposure to foreign currency risk using financial instruments.

Price risk

The Company is exposed to price risk with respect to equity prices. Equity price risk is defined as the potential adverse impact on the Company's earnings due to movements in individual equity prices or general movements in the level of the stock market. The Company closely monitors individual equity movements, and the stock market to determine the appropriate course of action to be taken by the Company.

Critical Accounting Estimates and Recent Accounting Pronouncements

The preparation of financial statements in conformity with IFRS requires management to make estimates and assumptions that affect the reported amount of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amount of revenues and expenses during the period. Actual results may differ from these estimates.

The International Accounting Standards Board (IASB) has published new standards and amendments or interpretations to existing standards which are mandatory for periods beginning on or after January 1, 2019, as outlined below.

Accounting standards adopted:

IFRS 16 Leases

The Company has adopted IFRS 16 with an initial adoption date of August 1, 2019. The Company utilized the modified retrospective method to adopt the new standard and therefore, the comparative information has not been restated and continues to be reported under IAS 17, Leases and related interpretations.

IFRS 16 specifies how leases will be recognized, measured, presented and disclosed and it provides a single lessee model, requiring lessees to recognize right-of-use assets and lease liabilities for all major leases. The impact of the transition to IFRS 16 is shown in Note 9 of the Company's financial statements for the three months ended October 31, 2019. The Company's accounting policy under IFRS 16 is as follows:

At the inception of a contract, the Company assesses whether a contract is, or contains, a lease based on whether the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. The Company recognizes a right-of-use asset and a lease liability at the lease commencement date. The right-of-use asset is initially measured based on the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to restore the underlying asset, less any lease incentives received. The assets are depreciated over the lease term using the straight-line method. The lease term includes periods covered by an option to extend if the Company is reasonably certain to exercise that option. In addition, the right-of-use asset can be periodically reduced for impairment losses, if any, and adjusted for certain remeasurements of the lease liability.

The lease liability is initially measured at the present value of future lease payments discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the Company's incremental borrowing rate. The lease liability is measured at amortized cost using the effective interest method. It is remeasured when there is a change in future lease payments arising from a change in an index or rate, if there is a change in the Company's estimate of the amount expected to be payable under a residual value guarantee, or if the Company changes its assessment of whether it will exercise a purchase, extension or termination option. When the lease liability is remeasured, a corresponding adjustment is made to the carrying amount of the right of use asset. The Company has elected to apply the practical expedient not to recognize right-of-use assets and lease liabilities for short-term leases that have a lease term of 12 months or less and leases of low value assets. The lease payments associated with these leases is recognized as an expense on a straight-line basis over the lease term.

IFRS 15 Revenue from Contracts with Customers

Revenue arising from providing customized research and software development is measured at the fair value of the consideration received or receivable. Contract revenue includes the initial contractual amount plus any variations in contract work, claims and incentive payments, to the extent that they are probable and can be measured reliably. As soon as the outcome of a contract can be estimated reliably, contract revenue is recognized in proportion to the stage of completion of the contract. Contract expenses are recognized as incurred unless they create an asset related to future contract activity.

Related Party Balances and Transactions

Key management personnel include persons having the authority and responsibility for planning, directing and controlling the activities of the Company and consist of executive and non-executive members of the Board of Directors and corporate officers. Key management compensation incurred with officers and directors of the Company or to companies controlled by officers and directors of the Company.

During the six months ended January 31, 2020 total compensation for officers and directors of the Company amounted to \$721,959 (2019 - \$440,863).

Controls and Procedures

Evaluation of disclosure controls and procedures:

Management is responsible for establishing and maintaining disclosure controls and procedures as defined under National Instrument 52-109. At January 31, 2020, the President & Chief Executive Officer and Chief Financial Officer concluded that the design and operation of these disclosure controls and procedures were effective and that material information relating to the Company, including its subsidiaries, was made known to them and was recorded, processed, summarized and reported within the time periods specified under applicable securities legislation.

Internal controls over financial reporting:

President & Chief Executive Officer and Chief Financial Officer have designed or caused to be designed under their supervision, disclosure controls and procedures which provide reasonable assurance that material information regarding the Company is accumulated and communicated to the Company's management, including its President & Chief Executive Officer and Chief Financial Officer in a timely manner.

In addition, the President & Chief Executive Officer and Chief Financial Officer have designed or caused it to be designed under their supervision internal controls over financial reporting ("ICFR") to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements.

The President & Chief Executive Officer and Chief Financial Officer have been advised that the control framework the President & Chief Executive Officer and Chief Financial Officer used to design the Company's ICFR is recognized by the Committee of Sponsoring Organizations of the Treadway Commission.

The President and the Chief Financial Officer have evaluated, or caused to be evaluated under their supervision, whether there were changes to its ICFR during the period ended January 31, 2020 that have materially affected or are reasonably likely to materially affect the Company's ICFR. No such changes were identified through their evaluation.

A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that its objectives are met. Due to inherent limitations in all such systems, no evaluations of controls can provide absolute assurance that all control issues, if any, within a company have been detected. Accordingly, our disclosure controls and procedures and our internal controls over financial reporting are effective in providing reasonable, not absolute, assurance that the objectives of our control systems have been met.

Risk and Uncertainties

The Company's business is subject to a number of risk factors which are described in our most recently filed AIF. Additional risks and uncertainties not presently known to us or that we currently consider immaterial also may impair our business and operations and cause the price of the common shares to decline. If any of the noted risks actually occur, our business may be harmed and the financial condition and results of operation may suffer significantly. In that event, the trading price of the common shares could decline, and shareholders may lose all or part of their investment.

Additional information and other publicly filed documents relating to the Company are available through the internet on the Canadian Securities Administrators' System for Electronic Document Analysis and Retrieval ("SEDAR"), which can be accessed at www.sedar.com.

Off-Balance Sheet Arrangements

The Company does not utilize off-balance sheet arrangements.

Other

As of the date of this MD&A, the Company has 150,218,943 common shares issued and outstanding. In addition, there are 34,370,939 warrants which may be converted to one common share each at prices ranging from \$1.00 to \$3.25. The Company also has stock options outstanding to purchase an additional 9,781,408 common shares at exercise process ranging from \$0.185 to \$2.48 per share.