



Liberty Defense

INNOVATIVE & REVOLUTIONARY THREAT DETECTION

**MANAGEMENT'S DISCUSSION AND ANALYSIS
THREE AND SIX MONTHS ENDED JUNE 30, 2023**

(Expressed in U.S. dollars, unless otherwise stated and per share amounts)

Dated: August 18, 2023

Liberty Defense Holdings, Ltd., ("Liberty" or the "Company") has prepared this Management's Discussion and Analysis ("MD&A") as of August 18, 2023 and should be read in conjunction with the Company's condensed interim consolidated financial statements for the three and six months ended June 30, 2023. Unless otherwise stated, all financial information has been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board. All dollar amounts herein are expressed in U.S. dollars unless stated otherwise. References to \$ means U.S. dollars, and CAD\$ are to Canadian dollars.

This MD&A may contain forward looking statements based on assumptions and judgments of management regarding events or results that may prove to be inaccurate as a result of development or other risk factors beyond its control. Actual results may differ materially from the expected results.

Additional information on the Company is available at the Company's website www.libertydefense.com and under the Company's profile at www.sedar.com.

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1) Overview

(a) Description of Business

Liberty Defense Holdings, Ltd., is a public company (TSXV: SCAN, Frankfurt: L2D, OTCQB: LDDFF), that was incorporated under the Business Corporation Act of Ontario on June 8, 2012. The Company’s registered and records office address is 1055 West Georgia Street, 1500 Royal Centre, P.O. Box 11117, Vancouver, British Columbia, V6E 4N7, Canada.

The Company, through its wholly owned subsidiary Liberty Defense Technologies Inc. (“LDT”), is principally engaged in the commercialization of an active 3D imaging technology system, HEXWAVE, to detect concealed threats.

(b) License Agreements

i) HEXWAVE Technology

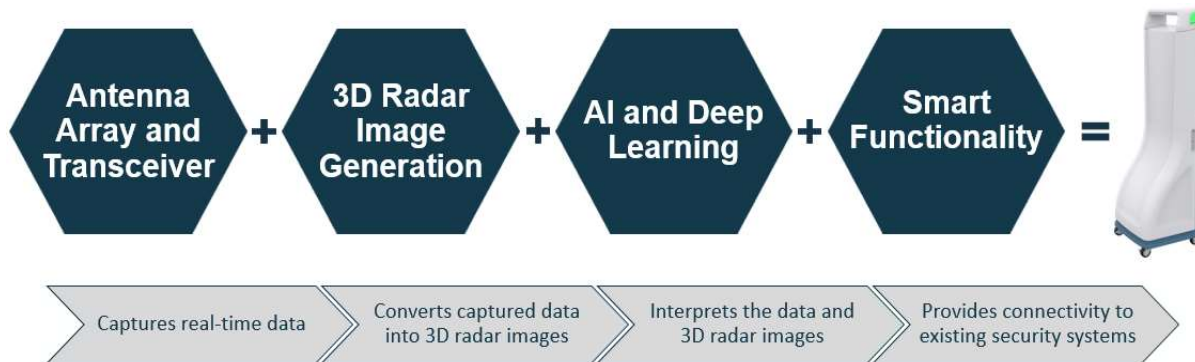
- a. Active real-time 3D imaging technology licensed from MIT LL

Active video rate imaging technology was developed by the Massachusetts Institute of Technology Lincoln Labs (“MIT LL”) and the technology has been in development since 2014. In October 2017, a concept demonstrator (pre-prototype) of the core technology was successfully tested under environmental conditions by MIT LL.

MIT LL undertook 4 years of research and development, including building a working prototype and testing the technology in both lab and real electromagnetic environments. LDT worked with MIT LL to transfer the active imaging technology starting in Q4 2018. In September 2019, Liberty and MIT LL were recognized by the FLC (Federal Laboratory Consortium) for the 2019 Excellence in Technology Transfer Northeast Region.

With the exclusive global license agreement (the “License Agreement”) for the use of the active imaging technology, the Company has continued to develop HEXWAVE using the technology and concepts demonstrated by MIT LL. MIT LL, through the Technology Transfer Agreement (“TTA”) has transferred the intellectual property and understanding to Liberty’s Center of Excellence (“COE”) in order for the technology to be further refined and developed. As part of the commercialization and go to market strategy, the Company had identified certain required changes and entered into a Cooperative Research and Development Agreement (CRADA) with MIT LL to leverage off their existing experience and accelerate the development of certain aspects of HEXWAVE. In addition to active imaging technology, the Company is also developing Automatic Threat Detection technology with the help of rich 3-dimension data and deep learning algorithms.

HEXWAVE Overview:



Since acquiring the License Agreement from MIT LL, Liberty has significantly advanced HEXWAVE which includes the active imaging technology, automated threat detection (“ATD”) and smart IoT technologies. This culminated in the demonstration of the four principal subsystems in September 2019. This step represented a significant de-risking of the product development phase.

- b. Artificial intelligence and Deep Learning – Automatic Threat Recognition (“ATR”)

Automatic Threat Recognition utilizing deep learning algorithms was developed by Liberty to recognize person-borne concealed metal and non-metal threats. The 3-D data and images produced by the HEXWAVE are used to train and enhance the artificial intelligence engine using deep-learning algorithms.

At a frame capture rate of 20 images per second, the algorithms can exploit the changes in person's positioning from frame-to-frame, thus maximizing the total coverage area and threat detection performance.

ATR improves detection accuracy, reduces resources required for screening, and allows the security personnel to take necessary action instantly. As additional field data and images are collected by the system over time, our goal will be to continuously improve HEXWAVE and its threat detection performance by receiving real time updates to its algorithms as new and emerging threats are identified.

Global License Agreement – September 2018

The License Agreement for the use of the technology behind HEXWAVE with MIT is to be in effect until December 2035. Under the License Agreement, several milestones are required to be met to keep it in good standing. MIT continues to work closely with Liberty on developing this technology and amended the timeline to develop a beta prototype from on or before December 31, 2019, to removing the deadline entirely and replacing it with an in-plant inspection by MIT at regular intervals with at least six (6) months between each such inspection. The amendment also included additional details in relation to changes on required commercial sales dates, required total net sales by year, and payment dates on its license agreement. Refer to SEDAR (www.sedar.com) for further details on the MIT amendment.

HEXWAVE Key Discriminators

Central to positioning HEXWAVE is building on its key discriminators. These are enabled by the system architecture that aligns to key market needs. These include:

- Detects metal & non-metal threat objects
- Operates in both indoor and outdoor locations including both overt and covert applications
- Protects privacy (no personal data is collected or analyzed)
- ATD in real-time using rich 3D data and deep learning algorithms
- Smart functionality provides connectivity to existing security systems (VMS, door locks, networks)
- Routine software & artificial intelligence updates
- Operationally agile (mobile and deployable across detection space)
- High throughput (over 700 screens per hour) with precise secondary screening

About the Explosives and Weapon Detection Market

The aggregate markets associated with the explosives and weapon detection market are expected to total over \$11 billion by 2025. The verticals most relevant to the growing Urban Security Market (“USM”) are public venues, secured perimeters & buildings, land transportation, government, and others (schools, hotels, casinos, places of worship, malls, workplace & community screening).

The complexity of the urban security threat environment has dramatically changed over the last decade, requiring a more proactive approach to preventing violent attacks against communities. Since the 9/11 events, the air transportation community has effectively deployed a combination of detection technologies that are being consistently upgraded in an attempt to “stay ahead” of evolving threats. The array of detection tools has largely been protecting access to aircraft systems as gated or “point” solutions. The public is forced to tolerate the delays associated with such inspections due to the extreme risks that explosives or weapons can have on an aircraft and its passengers.

In contrast, urban communities are largely unprotected against random acts of violence or use systems that significantly impede the flow of customers into and within business facilities. While the occasional violent act was more often considered an anomaly, the frequency and magnitude of violent attacks is forcing both businesses and governments to rethink how to move to more proactive measures. Since 2015, there have been over 300 mass

shootings per year in the United States (“US”) at a pace of nearly one per day. There is a market-driven need for security detection that can be broadly deployed across nearly all public and private facilities. The base requirements are that they be both highly accurate and nonintrusive to our daily lives.

Current Alternatives

The current alternatives in the United States market are typically restricted to:

- principally focusing on metal threats, therefore non-metal threats can potentially go undetected
- airport solutions which are not able to be used across other verticals and do not have the requisite throughput
- limited outdoor application and therefore hinder the capability of providing a layered defense for proactive threat detection
- requiring large, dedicated areas or space versus integration into existing infrastructure
- limited capability for integration into existing security systems command & control

About Liberty’s Management Team

Central to Liberty’s team is the technical and management expertise are: CEO and Director, Bill Frain, former Senior Vice President for L-3 Security & Detection Systems (NYSE – LHX), the world’s leading supplier of security inspection systems. In this role Bill led global sales, business development and key account management. President and CTO, Mike Lanzaro, former Vice President of Engineering and Technology at L-3 Security & Detection Systems. Vice President of Engineering, Jeffrey Gordon, who spent his last five years working at General Electric Global Research developing roadmaps for imaging and sensor technologies and over 35 years experience leading the development of ground-breaking sensing products for the military, medical, industrial, and commercial markets, including body scanners that can be seen deployed across most United States and European Union airport checkpoints.

Liberty’s Advisors

Liberty has assembled a group of Advisors that can provide unprecedented market access to several of our identified market verticals including the National Football League, law enforcement, federal and state government facilities, and former airport executives. A key aspect to Liberty’s success will be gaining access and developing the market for HEXWAVE.

ii) MIT License Agreement Description and Commitments

The Company, through its wholly owned subsidiary Liberty Defense Technologies Inc. (“LDT”), has entered into agreements with the Massachusetts Institute of Technology (“MIT”) and MIT’s Lincoln Laboratory (“MIT LL”), including an exclusive patent licence agreement between MIT and LDT dated September 10, 2018, as amended from time to time (the “Licence Agreement”), a technology transfer agreement between LDT and MIT LL, effective August 24, 2018 (the “Technology Transfer Agreement”), and a cooperative research and development agreement between LDT and MIT dated as of December 21, 2018 (“CRADA”), such agreements providing LDT with an exclusive licence for patents, design assets and MIT LL technical expertise related to active three-dimensional imaging technology that are the core technology behind the HEXWAVE product.

The obligations under the Technology Transfer Agreement and the CRADA have now been completed. Liberty may consider extending the CRADA (and therefore changing its scope) if it determines that additional MIT LL technical expertise related to active three-dimensional imaging technology is required. Pursuant to the License Agreement, LDT has been granted the exclusive rights to MIT’s patent in "multistatic sparse array topology for FFT-based field imaging" (MIT Case No. 1 8409L) (the “Patent”), which is being utilized in the development and application of the HEXWAVE product. The License Agreement is to be in effect until the expiration of the Patent, which is 12 years (December 2035). In granting LDT such patent rights, the Company shall pay MIT in addition to patent filing costs an annual maintenance fees the following: 1) \$20,000 for 2019 (paid); \$50,000 for 2020 (paid); \$60,000 for 2021 (paid); \$100,000 for 2022 (paid); \$200,000 for 2023 (payable) and \$350,000 for 2024 and thereafter; and 2) a royalty of 5.7% of all future net sales of the Company. The Company shall also be required to achieve certain milestones.

iii) Battelle Memorial Institute License Agreement Description and Commitments

On March 22, 2021, the Company, through its wholly owned subsidiary DrawDown Detection, Inc. has entered into an agreement (“Battelle License Agreement”) with Battelle Memorial Institute (“Battelle”), which operates the Pacific Northwest National Laboratory (“PNNL”), to license the millimeter wave-based, High-Definition Advanced Imaging Technology (HD-AIT) body scanner and shoe scanner technologies. The agreement, as amended from time to time, provides the Company with a three-year exclusive license for the certain patents which will convert to a non-exclusive license for the remaining life of the patents. The agreement also provides the Company with non-exclusive license for certain patents for life.

As consideration for the Battelle License Agreement, the Company paid \$30,000 upon signing and \$30,000 six months after.

Under the Battelle License Agreement, the Company shall pay a five percent royalty on net sales and a twenty-five percent in all sublicensing revenues if permitted. The Company is also required to pay a minimum royalty amount as follows, unless the agreement is terminated:

	Amounts
Year 2021 (paid)	\$ 50,000
Year 2022 (payable)	50,000
Year 2023	100,000
Year 2024 and each year after	200,000

The Company is obligated to achieve certain milestones in the next twelve months and reimburse Battelle for ongoing patenting expenses, as well as past patenting expenses in the total amount of \$50,000, from which \$25,000 has been paid and the balance remains payable.

The continuity of the intangible assets is as follows:

	MIT licenses	Battelle license	Intellectual property	Total
Balance, December 31, 2021	\$ 366,280	\$ -	\$ 3,769,172	\$ 4,135,452
Additions	108,134	73,964	-	182,098
Amortization	(33,189)	(14,534)	(539,364)	(587,087)
Balance, December 31, 2022	\$ 441,225	\$ 59,430	\$ 3,229,808	\$ 3,730,463
Additions	205,940	31,904	-	237,844
Amortization	(24,960)	(19,108)	(283,079)	(327,147)
At June 30, 2023	\$ 622,205	\$ 72,226	\$ 2,946,729	\$ 3,641,160

Intangible assets included as MIT and Battelle licenses include payments in connection to reimbursement of global patent filing costs and annual maintenance fees.

(d) Recent Developments

From inception, Liberty set itself an aggressive product development timeline by pursuing a concurrent engineering and development approach and prior to its financial constraints had managed to deliver upon this timeline.

As scheduled, Liberty performed several beta prototype trials of HEXWAVE with multiple well-respected organizations across its various market verticals. These include, University of Wisconsin Police Department, Greater Toronto Airport Authority, a major US airline for employee screening, a major US airport for employee screening, North Carolina State Legislature, Maryland Stadium Authority, a Hindu temple in Southeast United States, among others.

In addition to advancing HEXWAVE and the market for it, Liberty achieved several significant corporate milestones which include:

- Liberty Defense announced the sale of its first HEXWAVE system (January 2023)

- Liberty Defense announced letter of intent form the Greater Toronto Airports to acquire the HEXWAVE for use in airport security programs (February 2023)
- Closing of a private placement for total gross proceeds of CAD\$1.3M (April 2023)
- Liberty announces HEXWAVE to be evaluated by Port of Oakland for use in Airport Employee Screening (April 2023)
- Liberty Announces trial of HEXWAVE at Los Angeles International Airport for Aviation worker screening (May 2023)
- Closing of private placement for total gross proceeds of CAD\$397,000K (May 2023)
- Closing of private placement for total gross proceeds of CAD\$305,000 (June 2023)
- Liberty announces contract with the Greater Toronto Airport Authority to Provide Enhanced Screening with Hexwave (June 2023)
- Liberty Announces Factoring Agreement to Support Improved Working Capital Credit Facility up to \$10M (June 2023)
- Liberty Announces Sale of Hexwave to Indiana Courthouse for Enhanced Threat Detection (July 2023)
- Liberty Announces Distribution Agreement and Partnership with GRASP Innovations, Netherlands (July 2023)
- Liberty Announces K2 Security Screening Group as a Strategic Partnership and Increased Market Penetration

(e) Outlook and Going Concern

Expenditure in research and development activities undertaken with the prospect of gaining new scientific or technological knowledge and understanding is recognized in the statement of loss as an expense when incurred.

The Company's expenditures in development activities where research results are used in planning and designing the production of new or substantially improved products and processes are recognized under intangible assets if the product or process is technically and commercially feasible, if there is an intention and ability to complete the project and then use or sell it and expect economic benefits from the project, if the company has sufficient resources to complete development and if it is able to measure reliably the cost during development. The recognized research and development expenditures incurred are recognized in the statement of loss as an expense when incurred.

The Company incurred in a total loss during the six months ended June 30, 2023, of \$4,682,946 and cash outflows from operating activities of \$1,283,539. In order to fully commercialize HEXWAVE, the Company will require additional funds to achieve its development timeline and bring HEXWAVE to market. The Company has certain committed development milestones over the next twelve months and based on the Company's current forecasted operational and development spend, the Company will require additional funds to meet these milestones. While the Company has been successful in arranging financing in the past, the success of such initiatives cannot be assured. This material uncertainty casts significant doubt upon the Company's ability to continue as a going concern.

The application of the going concern concept is dependent upon the Company's ability to generate future profitable operations and receive continued financial support from its creditors and shareholders. These consolidated financial statements do not give effect to any adjustments that might be required should the Company be unable to continue as a going concern.

Management plans to continue to pursue equity and/or debt financing to support operations. There can be no assurance that these financing efforts will be successful. Failure to maintain the support of creditors and obtain additional external financing will cause the Company to curtail operations and the Company's ability to continue as a going concern will be impaired. The outcome of these matters cannot be predicted at this time.

2) Results of Operations

Certain comparatives in prior periods may have been revised to conform to the current presentation.

During the three and six months ended June 30, 2023, the Company reported a total loss and comprehensive loss of \$2,609,460 and \$4,754,293 respectively (three and six months ended June 30, 2022 – \$2,818,554 and \$5,451,233 respectively), and basic and diluted loss per share of \$0.02 and \$0.04 respectively (three and six months ended June 30, 2022 – \$0.03 and \$0.07 respectively). Despite the accumulated losses, Management of the Company is confident in the future commercialization of its main technology HEXWAVE and to move forward the research and development other different potential technologies under review.

The net loss for the three and six months ended June 30, 2023, and 2022 is comprised of the following items:

	Three months ended June 30,		Six months ended June 30,	
	2023	2022	2023	2022
Revenues				
Revenue (note 14)	432,407	\$ –	\$ 943,978	\$ –
Research and development:				
Product development	61,686	53,230	145,234	120,809
Technology costs	497,590	16,916	569,725	200,475
Legal fees	-	4,044	-	5,474
Salaries and consulting fees (note 17)	848,833	841,029	1,874,913	1,907,151
Stock-based compensation (note 12 and 17)	20,344	85,051	47,402	92,732
Office, rent and administration	37,394	126,899	139,043	213,001
Travel and miscellaneous	15,463	116,549	25,648	180,649
Depreciation (note 6)	131,467	177,109	313,294	230,470
Amortization (note 7)	168,511	207,277	327,147	287,989
General Expenses:				
Salaries and consulting fees (note 17)	412,650	308,197	857,792	507,407
Legal and professional fees	147,485	8,019	173,463	145,703
Stock-based compensation (note 12 and 17)	173,035	602,118	366,563	1,019,066
Office, rent and administration	211,652	33,772	416,603	67,524
Regulatory and shareholder information	173,035	15,009	250,089	17,703
Travel, promotion and investor relations	71,564	172,803	81,358	353,227
	2,970,709	2,768,022	5,588,274	5,349,380
Other expense (income):				
Other income and expenses	(1,103)	-	(1,103)	-
Interest expense	21,899	13,714	40,727	27,717
Accretion expense (note 10)	582	695	(1,175)	1,395
Foreign exchange loss (gain)	201	(49,518)	201	(144,183)
	21,579	(35,109)	38,650	(115,071)
Net loss for the period	\$ (2,559,881)	\$ (2,732,913)	\$ (4,682,946)	\$ (5,234,309)

Significant variances affecting the total loss for the period are discussed as follows:

- i) Revenue for the three months ended June 30, 2023, was \$432,407, which was in relation to contract award revenue from the TSA and PNNL. As at June 30, 2023, the Company has not recognized any revenue in connection to sale of the HEXWAVE product. However, the Company has received firm purchase orders that are being processed and revenues will be recognized in future periods as performance obligations are met.
- ii) Research and development (“R&D”) expenses for the three months ended June 30, 2023, was \$1,781,288 in connection to expenses related to R&D of the Company’s licensed technologies with the purpose to mainly continue moving forward other different potential technologies under review. It is important to note that during the year ended December 31, 2022, a total of ten Beta Panels were added throughout the year as prototype assets. In addition, three NPI 0.5 HEXWAVE Panels were added as prototype assets in June 2023. This is reflected in higher depreciation in prior year of \$177,109 compared to the current three months June 30, 2023, depreciation of \$131,467, as the prototypes only have a one year life. During the three months ended June 30, 2023, the Company incurred \$848,833 in salaries and consulting fees that relate to software development and advancing the technologies under review such as HD-AIT. It also includes \$37,394 in office, rent, and

administration, as well as stock-based compensation in the amount of \$20,344 in connection to the amortization of the fair value of stock options granted to directors, officers, employees, and consultants. The Company also experienced a decrease of office expenses \$37,394 as at June 30, 2023, compared to prior year June 30, 2022 at \$126,899, due the decrease of the Atlanta short-term lease, that ended in January 2023. During the comparative period, three months ended June 30, 2022, the Company incurred \$16,916 in technology costs, \$116,549 for travel and miscellaneous expenses, \$85,051 in stock-based compensation, and \$841,029 in salaries and consulting fees that relate to software development and general R&D activities in connection to activities undertaken with the prospect of gaining new scientific or technical knowledge and understanding of the licensed technologies.

- iii) During the three-months ended June 30, 2023, total general expenses in the amount of \$1,189,421 were incurred mainly in connection to consulting fees, salaries and payroll related benefits, legal and professional fees, stock-based compensation and travel promotion and investor relations. Stock based compensation expenses of \$173,035 were incurred in connection to stock options, restricted share units, and performance shares granted.

Consulting fees, salaries and benefits recorded for the three months ended June 30, 2023, increased from \$308,197 to \$412,650 as the Company has increased our headcount over the past twelve months. There was also an increase in office, rent and administration from \$33,772 to \$211,652 due to the allocation breakout of G&A taxes from overall payroll, where in prior year it was consolidated into Research and Development. Also, there is a decrease in travel promotion and investor relations recorded for the three months ended June 30, 2023, as it went from \$172,803 to \$71,564 in the second quarter. Travel has decreased significantly as beta prototype testing activities have been completed, as well as management has tried to limit travel to preserve cash.

- iv) During the three months ended June 30, 2023, the Company recorded net other income in the amount of \$21,579 compared to net income of \$(35,109) incurred during the same period of the previous year. Foreign exchange (gain) loss was recorded for the three months ended June 30, 2023, \$201 compared to \$(49,518) for the three months ended June 30, 2022. The decrease in foreign exchange loss compared to the previous year is due to the foreign exchange rate remaining flat as well as the decrease in transactions during the period is significantly less in comparison to the prior year. The Company's functional currency is the Canadian dollar and holding financial assets and liabilities in other currencies, mainly the U.S. dollar, produces foreign exchange gains or losses.

3. Summary of Quarterly Results

Three months ended	Working capital (deficiency)	Total assets	Total loss and comprehensive income loss	Loss per share
	\$	\$	\$	\$
30-Jun-23	(2,851,771)	6,566,697	(2,609,460)	(0.02)
31-Mar-23	(2,032,132)	5,833,069	(2,144,833)	(0.02)
31-Dec-22	(133,516)	6,234,038	(3,670,331)	(0.03)
30-Sep-22	(227,687)	5,687,328	(3,157,109)	(0.03)
30-Jun-22	2,089,380	8,275,896	(2,818,554)	(0.03)
31-Mar-22	4,587,293	10,254,900	(2,632,679)	(0.04)
31-Dec-21	757,311	11,567,450	(2,562,682)	(0.04)
30-Sep-21	3,444,825	13,651,601	(3,012,091)	(0.04)

During the three months ended June 30, 2023, the Company continued with prepping for commercialization of the HEXWAVE, as well as research and development on the other licensed technologies. With the commercialization of the HEXWAVE, multiple purchase orders have been signed, as well as letter of intents. The sales, marketing and operational developments have expanded within the second quarter of 2023 in preparation to produce the HEXWAVE. The Company also added three NPI 0.5 Prototypes to Intellectual Property in the amount of \$171,899. The progression of the Company's other technology for HD-AIT, has continued to advance during the research and development stage.

Additionally, the Company closed three tranches of a private placement on April 14, 2023, May 9, 2023, and June 8, 2023, for total gross proceeds of \$1,539,467 (CAD\$2,052,212).

During previous quarters, the Company continued with the development of its different technologies and hired key individuals that will help the Company to support the success of the beta launch HEXWAVE product, along with the development of the product prototype for the Company's aviation checkpoint and other security solutions. The Company also during the previous quarters added eight Beta HEXWAVE Prototypes to Intellectual Property in the amount of \$467,887. Additionally, on March 17, 2022, the Company closed a brokered private placement for gross proceeds of \$6,816,237 (CAD\$8,624,994).

4. Liquidity and Capital Transactions Resources

(a) Liquidity

As of June 30, 2023, the Company had a cash balance of \$265,948 and a working capital deficiency of \$(2,851,771). Current liabilities as of June 30, 2023, are in the amount of \$4,561,960 which have been incurred in connection to continuing the development of the Company's licensed technologies and keeping the licenses and the Company's public registry in good standing.

	Six months ended June 30,	
	2023	2022
Cash (used in) provided by:		
Operating activities:		
Loss and comprehensive loss for the period	\$ (4,682,946)	\$ (6,648,812)
Items not involving cash:		
Items not involving cash:	1,093,416	2,446,511
Changes in non-cash working capital:	2,305,991	22,303
Cash used in operating activities	(1,283,539)	(4,179,998)
Cash used in investing activities	(345,554)	(196,557)
Cash provided by financing activities	1,288,444	6,067,816
Effect of foreign exchange rate changes on cash	(70,876)	(292,348)
Increase in cash	(411,525)	1,398,913
Cash, beginning of the period	677,473	1,341,573
Cash, end of the period	\$ 265,948	\$ 2,740,486

During the six months ended June 30, 2023, the Company used net cash in operating activities in the amount of \$1,283,539 mainly due to expenses related to research and development, salaries and consulting fees, promotional and investor relations activities. The Company incurred \$345,554 in investing activities which relates to additions to intangible assets from the MIT & PNNL Patent and additions to the property and equipment regarding NPI 0.5 prototypes. Finally, net cash was used in financing activities in the amount of \$1,288,444 which relates to the private placement issuance of common shares and warrants exercised during the period, as well as additions to the Boston and Atlanta leases.

The Company has not issued dividends to date and has no plans to pay dividends in the foreseeable future.

In comparison, during the six months ended June 30, 2022, the Company used net cash in operating activities in the amount of \$4,179,998 mainly due to the expenses related to research and development, salaries and consulting fees, promotional and investor relations activities. The Company incurred \$196,557 in investing activities which relates to additions to intangible assets from the MIT Patent and additions to the property and office equipment. Also, provided

cash in financing activities in the net amount of \$6,067,816 which mainly relates to proceeds from issuance of common shares and warrants exercised during the period.

(b) Capital Transactions and Resources

Common share transactions for the six months ended June 30, 2023

- i) On March 11, 2023, a total of 1,098,125 finder warrants expired with an exercise price of CAD\$0.40. These broker warrants were fair valued at \$186,713 (CAD\$250,812).
- ii) On April 14, 2023, the Company closed the first tranche of a non-brokered private placement for gross proceeds of 1,007,249 (CAD\$1,341,212). The Company issued 6,706,060 units (each a “Unit”) of the Company at a price of CAD\$0.20 per Unit. Each Unit comprised of one common share and one-half share purchase warrant. Each warrant entitles the holder thereof to purchase one additional common share of the Company at a price of CAD\$0.30 within a period of 24 months. The Company issued 3,353,030 investor warrants and allocated a residual value of \$53,595 (CAD\$71,366). The Company paid the agents 215,250 broker warrants with a fair valued of \$5,464 (CAD\$7,320). Each broker warrant will be exercisable to purchase one common share for a period of 24 months at an exercise price of CAD\$0.30. Additionally, the Company also incurred cash costs in connection to private placement in the amount of \$93,430 (CAD\$125,959). All securities issued under the private placement are subject to a hold period expiring four months and one day after the closing date of the private placement.
- iii) On May 9, 2023, the Company closed the second tranche of a non-brokered private placement for gross proceeds of \$296,940 (CAD\$397,000). The Company issued 1,985,000 units (each a “Unit”) of the Company at a price of CAD\$0.30 per Unit. Each Unit comprised of one common share and one-half share purchase warrant. Each warrant entitles the holder thereof to purchase one additional common share of the Company at a price of CAD\$0.30 within a period of 24 months. The Company issued 992,500 investor warrants and allocated a residual value of \$8,463 (CAD\$11,315). The Company paid the agents 138,950 broker warrants with a fair valued at \$4,881 (CAD\$6,544). Each broker warrant will be exercisable to purchase one common share for a period of 24 months at an exercise price of CAD\$0.30. Additionally, the Company also incurred cash costs in connection to private placement in the amount of \$20,803 (CAD\$27,890). The company also issued for 45,000 shares for gross proceeds of \$6,732, which were issued in order to offset invoices due to a vendor. All securities issued under the private placement are subject to a hold period expiring four months and one day after the closing date of the private placement.
- iv) On June 8, 2023, the Company closed the third and final tranche of a non-brokered private placement for gross proceeds of \$228,547 (CAD\$305,000). The Company issued 1,525,000 units (each a “Unit”) of the Company at a price of CAD\$0.20 per Unit. Each Unit comprised of one common share and one-half share purchase warrant. Each warrant entitles the holder thereof to purchase one additional common share of the Company at a price of CAD\$0.30 within a period of 24 months. The Company issued 762,500 investor warrants and allocated a residual value of \$32,043 (CAD\$42,763). The Company paid the agents 92,750 broker warrants with a fair valued of \$1,893 (CAD\$2,526). Each broker warrant will be exercisable to purchase one common share for a period of 24 months at an exercise price of CAD\$0.30. Additionally, the Company also incurred cash costs in connection to filing and legal expenses in the amount of \$23,146 (CAD\$30,888). All securities issued under the private placement are subject to a hold period expiring four months and one day after the closing date of the private placement.
- v) On June 17, 2023, a total of 1,106,900 broker warrants expired with an exercise price of CAD\$0.50. These broker warrants had a fair valued of \$218,086 (CAD\$292,955).

Common share transactions during the six months ended June 30, 2022

- i) On March 3, 2022, a total of 123,300 share purchase warrants were exercised at CAD\$0.40 per share for total proceeds of \$39,101 (CAD\$49,320). The fair value of the exercised warrants was \$21,479 (CAD\$27,126) and was transferred from the equity reserves and recorded against share capital. Also, an additional 123,300 common shares were issued for total proceeds of \$19,479 (CAD\$24,600).
- ii) On March 17, 2022, the Company closed a brokered private placement for gross proceeds of \$6,816,237 (CAD\$8,624,994). The Company issued 26,136,345 units (each a “Unit”) of the Company at a price of CAD\$0.33 per Unit. Each Unit comprised of one common share and one-half share purchase warrant. Each warrant entitles the holder thereof to purchase one additional common share of the Company at a price of CAD\$0.50 within a period of 24 months. The Company issued the agents 1,996,363 warrants (“broker warrants”) with a fair value of \$312,816 and paid cash commission of \$520,642. Each broker warrant will be exercisable to purchase one common share for a period of 24 months at an exercise price of CAD\$0.33. Additionally, the Company also incurred cash costs in connection to filing and legal expenses in the amount of \$238,734 and paid a corporate finance fee of CAD\$100,000 with common shares of the Company (303,030 common shares issued with a fair value of \$79,029). All securities issued under the private placement are subject to a hold period expiring four months and one day after the closing date of the private placement.
- iii) On May 25, 2022, the Company released from escrow a total of 4,386,500 common shares in connection to capital performance shares’ milestones reached. The estimated fair value of these capital performance shares was \$1,377,886 (CAD\$1,754,600) which was transferred from equity reserves.

Other sources of funds:

Other sources of funds potentially available to the Company are through the exercise of outstanding stock options, and share purchase warrants with the following terms:

As at June 30, 2023, the number of stock options outstanding and exercisable, adjusted for the share consolidation was:

Expiry date	Outstanding		Exercisable	
	Number of stock options	Exercise price	Remaining contractual life (years)	Number of stock options
1-May-24	50,000	CAD\$ 0.50	0.84	50,000
15-Jun-24	37,500	CAD\$ 0.50	0.96	37,500
1-Jul-24	75,000	CAD\$ 0.50	1.01	75,000
8-Jul-24	75,000	CAD\$ 0.50	1.02	75,000
31-Jul-24	50,000	CAD\$ 0.50	1.09	50,000
23-Aug-24	37,500	CAD\$ 0.50	1.15	37,500
25-Sep-24	37,500	CAD\$ 0.50	1.24	37,500
29-Sep-24	75,000	CAD\$ 0.50	1.25	75,000
Apr 9 and Jul 2, 2024	137,097	CAD\$ 4.96	1.01	137,097
7-Apr-26	1,550,000	CAD\$ 0.50	2.77	1,550,000
10-Jun-26	100,000	CAD\$ 0.50	2.95	100,000
28-Jul-26	125,000	CAD\$ 0.55	3.08	109,375
28-Jul-26	90,000	CAD\$ 0.65	3.08	78,750
1-Nov-26	465,000	CAD\$ 0.46	3.34	348,750
14-Jan-27	100,000	CAD\$ 0.36	3.55	62,500
26-Apr-27	1,845,000	CAD\$ 0.41	3.82	922,500
26-May-24	250,000	CAD\$ 0.50	0.91	125,000
26-May-27	125,000	CAD\$ 0.38	3.91	62,500
16-Aug-27	185,000	CAD\$ 0.29	4.13	69,375
21-Nov-27	60,000	CAD\$ 0.22	4.40	15,000
26-Apr-28	110,000	CAD \$0.18	4.83	-
Outstanding, June 30, 2023	5,579,597			4,018,347

Total stock-based compensation expense as a result of options granted and vested during the three and six months ended June 30, 2023, was \$57,715 and \$139,094 (three and six months ended June 30, 2022 – \$245,540 and \$239,794).

As at June 30, 2023, the number of restricted share units (“RSU”) outstanding and exercisable are as follows:

	Number of equity settled restricted share units	Weighted average market price
Outstanding, December 31, 2021	1,000,000	CAD\$ 0.58
Granted	1,522,155	0.45
Exercised	(50,000)	0.32
Outstanding, December 31, 2022	2,472,155	CAD\$ 0.50
Granted	-	0.00
Exercised	-	0.00
Outstanding, June 30, 2023	2,472,155	CAD\$ 0.50

The estimated fair value of the equity settled RSUs granted as of June 30, 2023, was CAD\$nil (December 31, 2022 – CAD\$691,394) and will be recognized as an expense over the vesting period of the RSUs. The fair value of the equity settled RSUs as at the grant date was determined with reference to the market value of the common shares of the Company at the grant date.

On September 14, 2022, a total of 50,000 common shares of the Company with a fair value of \$20,894 were issued in connection with the settlement of 50,000 RSUs.

During the three and six months ended June 30, 2022, the Company recognized stock-based compensation related to RSUs in the amount of \$81,877 and \$168,915 (three and six months ended June 30, 2022, – \$182,704 and \$300,787).

During the six months ended June 30, 2023, no restricted share units were granted.

During the six months ended June 30, 2022, the following transactions occurred in connection to restricted share units:

- i) On January 14, 2022, the Company granted 150,000 RSUs to an ex-employee; this RSUs shall be settled with common shares of the Company, are restricted until January 15, 2027, and vest at 100% on January 14, 2023.
- ii) On April 25, 2022, the Company granted 408,750 RSUs to directors, officers, and consultants; these RSUs shall be settled with common shares of the Company, are restricted until April 26, 2027, and vested at 100% on June 10, 2022.
- iii) On April 26, 2022, the Company granted 800,000 RSUs to directors and officers; these RSUs shall be settled with common shares of the Company, are restricted until April 26, 2027, and vest at 100% on April 26, 2024.
- iv) On May 26, 2022, the Company granted 113,405 RSUs to an officer of the Company; these RSUs shall be settled with common shares of the Company, are restricted until May 27, 2027, and these RSUs vest 100% on May 26, 2023.

As at June 30, 2023 the outstanding number of share purchase warrants, adjusted for the share consolidation outstanding are as follows:

Expiry date	Outstanding		
	Number of warrants	Exercise price	Remaining contractual life (years)
17-Mar-24	2,912,734	CAD\$0.50	0.72
17-Mar-24	13,068,172	CAD\$0.50	0.72
17-Mar-24	1,996,363	CAD\$0.33	0.72
13-Apr-25	3,353,030	CAD\$0.30	1.79
13-Apr-25	215,250	CAD\$0.30	1.79
9-May-25	992,500	CAD\$0.30	1.79
9-May-25	138,950	CAD\$0.30	1.79
8-Jun-25	762,500	CAD\$0.30	1.79
8-Jun-25	92,750	CAD\$0.30	1.79
27-Oct-27	1,446,736	CAD\$0.28	4.33
27-Oct-27	9,345,850	CAD\$0.50	4.33
27-Oct-27	237,500	CAD\$0.50	4.33
	34,562,335		

During the six months ended June 30, 2023, the following transactions occurred in connection to warrants:

- i) On March 11, 2023, a total of 9,723,125 share purchase warrants expired without being exercised.
- ii) On April 13, 2023, as part of the brokered private placement the Company issued a total of 3,568,280 shares purchase warrants to brokers and investor at an exercise price of CAD\$0.30.
- iii) On May 9, 2023, as part of the brokered private placement the Company issued a total of 1,131,450 shares purchase warrants to brokers and investors at an exercise price of CAD\$0.30.
- iv) On June 8, 2023, as part of the brokered private placement the Company issued a total of 855,250 shares purchase warrants to brokers and investors at an exercise price of CAD\$0.30.
- v) On June 17, 2023, the Company cancelled 8,186,900 share purchase warrants without being exercised.

During the six months ended June 30, 2022, the following transactions occurred in connection to warrants:

- i) On January 9, 2022, the Company cancelled 314,516 share purchase warrants without being exercised.
- ii) On March 3, 2022, a total of 123,300 purchase warrants were exercised at a price of CAD\$0.40.
- iii) On March 17, 2022, as part of the brokered private placement the Company issued a total of 15,064,535 shares purchase warrants at an exercise between CAD\$0.33 and CAD\$0.50.
- iv) On May 29, 2022, the Company cancelled 84,986 share purchase warrants without being exercised.

(c) Performance Shares

On March 17, 2021, Liberty deposited into escrow, and held in escrow, Operational Performance Shares (“OPS”) and Capital Market Performance Shares (“CMPS”) for certain directors, officers, and consultants of the Company upon the Company achieving certain performance milestones. Once these milestones were achieved the shares would be released. These performance shares included 2,000,000 of OPS and 8,773,000 of CMPS. In order to fair value these performance shares, management estimated the probability that the Company would issue the performance shares. Therefore, the fair value of these performance shares was based on the probability analysis and the share market price at grant date of CAD\$0.40 per share.

Operational Performance Shares

During the three and six months ended June 30, 2023, none of the 2,000,000 OPS have been issued as neither of the two milestones have been met. The estimated fair value of the OPS is CAD\$800,000 with an estimated vesting period between March 2023 and September 2023. During the three and six months ended June 30, 2023, the Company recorded stock-based compensation in connection to OPS in the amounts of \$53,787 and \$105,957 (three and six months ended June 30, 2022, - \$56,633 and \$113,037).

Capital Market Performance Shares

During the year ended December 31, 2021, the Company issued 2,193,250 from the total of 8,773,000 CMPS as one of the established milestones was met. During the year ended December 31, 2022, an additional 6,579,750 CMPS were issued as the final three milestones were met. The Company set a total of four milestones with an equal number of CMPS to be issued when the Company achieves such milestones. The Company estimated a probability of the number of CMPS it will issue in addition to an estimated vesting period between June 2021, and September 2022. The total estimated fair value of the CMPS was CAD\$3,509,200. At the year ended December 31, 2022, the CMPS were fully accrued for. During the three and six months ended June 30, 2023, the Company recorded stock-based compensation in

connection to CMPS in the amount of \$nil and \$nil (three and six months ended June 30, 2022, – \$202,292 and \$458,181).

	Number of equity settled performance share units	Weighted average price
Outstanding, December 31, 2021	8,579,750	CAD\$ 0.40
Released from escrow	(6,579,750)	0.40
Outstanding, December 31, 2022	2,000,000	CAD\$ 0.40
Released from escrow	-	0.00
Outstanding, June 30, 2023	2,000,000	CAD\$ 0.40

(d) Reconciliation of Use of Proceeds from March 2022 Unit Offering

In March 2022, the Company undertook an offering of approximately \$6,816,237 (CAD\$8,625,000) of units. The following table sets out a comparison of how the Company used the proceeds during the seven-month period following the closing date in March 2022, an explanation of variances and the impact of variances on the ability of the Company to achieve its business objectives and milestones.

Intended Use of Proceeds of March 2022 Unit Offering		Actual Use of Proceeds from March 2022 Unit Offering	(Over)/under expenditure	Explanation of Variance and impact on business objectives
Agent's cash commission	\$618,243	\$520,642	\$97,601	Lower cost than anticipated
Agent's legal fees, expenses and disbursements	\$58,086	\$58,086	\$0	N/A
Cash portion of Agent's corporate finance fee	\$39,514	\$39,514	\$0	N/A
Research, development, implementation and enhancement ⁽¹⁾	\$6,100,394	\$6,197,995	\$(97,601)	The Company has used substantially all of the proceeds
Total	\$6,816,237	\$6,816,237	\$0	

Notes:

- (1) Such expenses include costs related to funding the further enhancement, development and testing to get ready for future commercialization of the Company's HEXWAVE technology as well as further development of the latest technologies exclusively licensed to the Company for aviation checkpoints.

(e) Reconciliation of Use of Proceeds from October 2022 Unit Offering

In October 2022, the Company undertook an offering of approximately \$3,745,817 (CAD\$5,140,218) of units. The following table sets out a comparison of how the Company used the proceeds during the three-month period following the closing date in October 2022, an explanation of variances and the impact of variances on the ability of the Company to achieve its business objectives and milestones.

Intended Use of Proceeds of October 2022 Unit Offering		Actual Use of Proceeds from October 2022 Unit Offering	(Over)/under expenditure	Explanation of Variance and impact on business objectives
Agent's cash commission	\$289,926	\$289,926	\$0	N/A
Agent's legal fees, expenses and disbursements	\$86,280	\$86,280	\$0	N/A
Cash portion of Agent's corporate finance fee	\$36,436	\$36,436	\$0	N/A
Research, development, implementation and enhancement ⁽¹⁾	\$3,333,175	\$3,333,175	\$0	The Company will use substantially all of the proceeds
Total	\$3,745,817	\$3,745,817	\$0	

Notes:

- (2) Such expenses include costs related to funding the further enhancement, development and testing to achieve future commercialization of the Company's HEXWAVE technology as well as development of the latest technologies exclusively licensed to the Company for aviation checkpoints.

Intended Use of Proceeds of Q2 2023 Unit Offering		Actual Use of Proceeds from Q2 2023 Unit Offering	(Over)/under expenditure	Explanation of Variance and impact on business objectives
Agent's legal fees, expenses and disbursements	\$66,938	\$66,938	\$0	N/A
Cash portion of Agent's corporate finance fee	\$77,172	\$77,172	\$0	N/A
Research, development, implementation and enhancement ⁽¹⁾	\$1,395,357	\$1,129,409	\$265,948	The Company will use substantially all of the proceeds
Total	\$1,539,467	\$1,273,519	\$265,948	

Notes:

- (3) Such expenses include costs related to funding the further enhancement, development and testing to achieve future commercialization of the Company's HEXWAVE technology as well as development of the latest technologies exclusively licensed to the Company for aviation checkpoints.

5. Commitments

- i) As at June 30, 2023 and December 31, 2022, the minimum lease payments are:

	June 30, 2023	December 31, 2022
Maturity analysis - contractual undiscounted cash flows		
One year or less	\$ 254,089	\$ 161,707
Two to five years	746,937	579,947
Six and thereafter	212,857	38,881
Total lease liabilities	\$ 1,213,883	\$ 780,535
Effect of discounting	(232,478)	(142,229)
Lease liabilities included in the statement of financial position	981,405	638,306
Current	\$ 122,683	\$ 123,911
Non-current	\$ 858,722	\$ 514,395

As a result of the completion of the RTO and under the new management's vision, the corporate office is now located in Wilmington, MA. (Boston area). As a result, the Company subleased until the expiry of the headlease (April 2024) the office space located in Vancouver, BC., as it was no longer required. The Company fair valued the lease receivable by present valuing the expected lease receivable payments over the life of the lease. The Company used an interest rate of 5.55%, the interest rate implicit in the lease. Minimum undiscounted sublease payments receivable are: \$17,006 for the next 12 months and \$nil thereafter.

On December 28, 2022, the Company entered into a new office lease agreement in Atlanta, GA for a period of thirty-six months whereby an initial right-of-use asset will be recognized on the commencement date of February 1, 2023. As at June 30, 2023, the Company has approximately \$58,518 in lease commitments relating to this lease.

On November 7, 2022, the Company leased additional office space within its current Boston location. The term of the additional lease is sixty-three months whereby an initial right-of-use asset will be recognized on the commencement date of February 1, 2023. As at June 30, 2023, the Company has approximately \$445,330 in lease commitments relating to this lease.

6. Revenue

Revenue recognition during the six months ended June 30, 2023, relates to the contract award revenue from the TSA and PNNL.

The Company recognized during the three and six months ended June 30, 2023, \$432,407 and \$943,978 (three and six months ended June 30, 2022, - \$nil and \$nil), in revenue from contract awards. As at June 30, 2023, accounts receivable for work completed on contract awards was \$182,407 (December 31, 2022, the Company received \$35,194 and had a receivable of \$13,940). The balance of the receivable is from the federal government and is not subject to significant collection risk. As at June 30, 2023, the company has not recognized any deferred revenue.

As at June 30, 2023, the Company has not recognized in revenue related to the sale of our HEXWAVE product. However, the Company has a backlog of contracted sales that have not yet been recognized as revenue but will be recognized in future periods as performance obligations are met. It is estimated that these commitments will be recognized as revenue under the following timelines:

Expected Revenue	Year Ended December 31,		
	2023	2024	2025
TSA On-Person Screening Capability Program	\$ 272,897	\$ -	\$ -
Battelle Contract Award	50,865	-	-
TSA Contract Award HD-AIT	1,090,000	657,905	-
Hexwave	827,769	20,000	20,000
Total backlog	\$ 2,241,531	\$ 677,905	\$ 20,000

7. Contract Awards

During the three and six months ended June 30, 2023, the Company recognized total contract revenue of \$432,407 and \$943,978 (three and six months ended June 30, 2022, \$nil and \$nil) recorded in revenue. Future revenues in connection with these contracts will be recognized as performance obligations are met. It is estimated that future revenues will be recognized under the same basis following these timelines:

Contract Award Revenue	Six Months Ended June 30,		Year ended December 31,	
		2023	2023	2024
TSA On-Person Screening Capability Program	\$	26,945	\$ 272,897	\$ -
Battelle Contract Award		2,034	50,865	-
TSA Contract Award HD-AIT		915,000	1,090,000	657,905
Total estimated contract revenues	\$	943,978	\$ 1,413,762	\$ 657,905

i) Battelle (PNNL) HD-AIT Shoe Screener

On May 12, 2022, the Company received a contract award for \$212,697 from Battelle, Pacific Northwest Division's Contract. The contract award is to work hand in hand with PNNL to develop the High Definition – Advanced Imaging Technology (“HD-AIT”) Retrofit Kits. On July 31, 2023, there was a contract modification decreasing the total allotment from \$212,697 to \$100,000. With developing the HD-AIT Retrofit Kits, the Battelle Memorial License and patent will be utilized in the HD-AIT technology development. During the six months ended June 30, 2023, as part of the contract award the Company received \$nil and had a receivable of \$2,034 (December 31, 2022, the Company received \$35,194 and had a receivable of \$13,940). As part of the terms of the contract award the Company is required to submit invoices as follows:

Battelle HD-AIT Shoe Scanner	Amounts
Year 2022	
Quarter 2 Award payments received	\$ 3,686
Quarter 3 Award payments received	18,742
Quarter 4 Award payments received	26,707
Year 2023	
Quarter 1	-
Quarter 2 (payment receivable)	2,034
Quarter 3	20,000
Quarter 4	28,832
Total	\$ 100,000

The remaining \$48,832 contract award has not been recognized as a receivable as the timing of the receipt of these funds is not virtually certain. The Company will only recognize the asset when receipt is virtually certain.

ii) Transportation Security Administration's (TSA) HD-AIT Upgrade

On September 30, 2022, the Company received a contract award for \$1,747,905 from Transportation Security Administration (“TSA”) for the High Definitions – Advanced Imaging Technology (HD-AIT) Wide Band Upgrade Kit. The contract award is to develop a series of millimeter-wave imaging system prototypes to advance and upgrade the current state-of-the-art imaging technology for the current passenger security screening applications. The project will be performed over a period of eighteen months, and invoices will be issued once the milestones are reached based on the agreed upon timeline. During the three and six months ended June 30, 2023, the Company received \$425,000 and \$915,000 (June 30, 2022, – \$nil and \$nil). The Company is required to submit quarterly invoices as follows:

TSA HD-AIT Upgrade	Amounts	
Year 2023		
Milestone 1 (Q1 2023) (payment received)	\$	240,000
Milestone 2 (Q2 2023) (payment received)		250,000
Milestone 2 (Q2 2023) (payment received)		250,000
Milestone 4a (Q2 2023) (payment receivable)		175,000
Milestone 4b (Q4 2023)		175,000
Year 2024		
Milestone 5 (Q1 2024)		300,000
Milestone 6 (Q2 2024)		357,905
Total	\$	1,747,905

8. Collaboration Agreements

i) Transportation Security Administration's (TSA) On-Person Screening Capability Program

On October 20, 2021, the Company received a contract award for \$500,000 from TSA as part of the TSA On-Person Screening Capability Program. The contract award is for the demonstration and evaluation of the Company's HEXWAVE technology and its expanded capabilities for screening aviation workers to enhance detection and throughput performance. In order for the Company to draw down on this award, Liberty is required to have its HEXWAVE technology working at certain locations to collect and share data with TSA on identified threats to further develop algorithms to improve the recognition of threats with desire probability of detection. During the three and six months ended June 30, 2023, the Company received \$21,571 and \$26,945 (June 30, 2022, – \$64,528 and \$183,610) in connection with this award and had a receivable of \$5,374 (December 31, 2022, \$33,313) which have been as a reduction of related costs. As part of the terms of the contract award the Company is required to submit quarterly invoices as follows:

TSA On-Person Screening Capability Program Contract Award	Amounts	
Year 2022		
Quarter 1 (payment received)	\$	64,528
Quarter 2 (payment received)		119,082
Quarter 3 (payment received)		10,180
Quarter 4 (payment received)		33,313
Year 2023		
Quarter 1 (payment received)		21,571
Quarter 2 (payment receivable)		5,374
Quarter 3		64,857
Quarter 4		181,095
Total	\$	500,000

The remaining amount of \$245,952 from the contract award has not been recognized as a receivable as the timing of the receipt of these funds is not virtually certain. The Company will only recognize the asset when receipt is virtually certain.

9. Off-balance Sheet Arrangements

The Company does not utilize off-balance sheet arrangements.

10. Transactions Between Related Parties

The Company's related parties consist of the Company's directors, officers and companies associated with them including 1214852 B.C. LTD., a company where Omar Garcia, the Chief Financial Officer is a shareholder and Nicole Ridgedale Communications a direct family member of one of the directors.

Compensation of key management personnel:

Key management personnel include members of the Board, the Chief Executive Officer, Chief Financial Officer, Chief Technology Officer, and Chief Operating Officer. The net aggregate compensation paid, or payable and related party transactions are shown as follows:

	Three months ended June 30,		Six months ended June 30,	
	2023	2022	2023	2022
Short-term benefits	\$ 239,596	\$ 255,848	\$ 476,239	\$ 491,710
Share-based compensation	150,513	503,178	310,315	966,031
Consulting services (1)	34,908	47,134	78,463	145,715
	\$ 425,018	\$ 806,160	\$ 865,017	\$ 1,603,456

(1) Includes fees paid or payable to 1214852 B.C. LTD

Related party balances:

As of June 30, 2023, the Company had a balance payable of \$104,811 to related parties (December 31, 2022, - \$275,773). This payable balance includes accounts payable and accrued liabilities relating to consulting services from directors, officers, or their related companies, included in compensation of key management personnel. These related party balances are unsecured, non-interest bearing and have no specific terms of settlement.

During the six months ended June 30, 2023, the Company received working capital loans in the amount of \$1,473,196 (during the year ended December 31, 2022- \$438,117) from directors, officers, or their related parties. During the year ended December 31, 2022, all of these working capital loans were paid in full and the outstanding balance at December 31, 2022 is \$nil. As of June 30, 2023, the outstanding balance is \$1,276,178.

During the three and six months ended June 30, 2023, Nicole Ridgedale Communications incurred \$11,049 and \$31,442 in stock-based compensation and consulting services (three and six months ended June 30, 2022, - \$67,923 and \$93,584). These related party balances are unsecured, non-interest bearing and have no specific terms of settlement.

11. Critical Accounting Policies and Accounting Estimates and Judgements

Full disclosure of the Company's accounting policies and significant accounting estimates and judgments in accordance with IFRS can be found in note 2 and 3 of its audited consolidated financial statements as at December 31, 2022 and have remained substantially unchanged and are still applicable to the Company unless otherwise indicated.

12. Changes in Accounting Policies Including Initial Adoption

There were no new changes to accounting policies effective January 1, 2023, that impacted the most recently completed financial year.

13. Financial Instruments

As of June 30, 2023, the Company's financial instruments comprise cash, amounts receivables, and accounts payable and accrued liabilities, none of which are valued at fair value. The fair values of cash, amounts receivables, and accounts payable and accrued liabilities approximate their carrying values due to their short-term maturity. The carrying amount of the CEBA loan approximates fair value as it is discounted using a market rate of interest.

The Company's financial instruments are exposed to certain financial risks including, credit risk, liquidity risk, foreign currency risks, equity price risk and capital risk management. Details of each risk are laid out in the notes to the Company's condensed interim consolidated financial statements at June 30, 2023.

14. Other requirements

Outstanding share data

Authorized: Unlimited number of common shares

Number of common shares issued and outstanding as at June 30, 2023: 127,100,467

Number of common shares issued and outstanding as at August 18, 2023: 127,100,467

Number of stock options outstanding and exercisable as at August 18, 2023:

Expiry date	Outstanding		Exercisable	
	Number of stock options	Exercise price	Remaining contractual life (years)	Number of stock options
1-May-24	50,000	CAD\$ 0.50	0.70	50,000
15-Jun-24	37,500	CAD\$ 0.50	0.83	37,500
1-Jul-24	75,000	CAD\$ 0.50	0.87	75,000
8-Jul-24	75,000	CAD\$ 0.50	0.89	75,000
31-Jul-24	50,000	CAD\$ 0.50	0.95	50,000
23-Aug-24	37,500	CAD\$ 0.50	1.02	37,500
25-Sep-24	37,500	CAD\$ 0.50	1.11	37,500
29-Sep-24	75,000	CAD\$ 0.50	1.12	75,000
Apr 9 and Jul 2, 2024	137,097	CAD\$ 4.96	0.87	137,097
7-Apr-26	1,550,000	CAD\$ 0.50	2.64	1,550,000
10-Jun-26	100,000	CAD\$ 0.50	2.81	100,000
28-Jul-26	125,000	CAD\$ 0.55	2.95	125,000
28-Jul-26	90,000	CAD\$ 0.65	2.95	90,000
1-Nov-26	465,000	CAD\$ 0.46	3.21	406,875
14-Jan-27	100,000	CAD\$ 0.36	3.41	75,000
26-Apr-27	1,845,000	CAD\$ 0.41	3.69	1,153,125
26-May-24	250,000	CAD\$ 0.50	0.77	125,000
26-May-27	125,000	CAD\$ 0.38	3.77	62,500
16-Aug-27	185,000	CAD\$ 0.29	4.00	92,500
21-Nov-27	60,000	CAD\$ 0.22	4.26	22,500
26-Apr-28	110,000	CAD \$0.18	4.69	13,750
	5,579,597			4,390,847

Number of share purchase warrants as at August 18, 2023:

	Warrants outstanding	Exercise Price
Outstanding, December 31, 2021	21,345,561	CAD\$ 0.68
Issued	26,094,621	0.47
Expired	(399,502)	3.97
Exercised	(123,300)	0.60
Outstanding, December 31, 2022	46,917,380	0.40
Issued	5,554,980	0.30
Expired	(17,910,025)	0.64
Outstanding, Aug 18, 2023	34,562,335	0.45

Number of restricted share units as at August 18, 2023:

	Number of equity settled restricted share units	Weighted average market price
Outstanding, December 31, 2021	1,000,000	CAD\$ 0.58
Granted	1,522,155	0.45
Issued	(50,000)	0.32
Outstanding, December 31, 2022 and August 18, 2023	2,472,155	CAD\$ 0.50

There are 622,155 restricted share units that are exercisable. The remaining share units are not exercisable since they vest during 2023 and 2024.

Number of CMPS as at August 18, 2023:

	Number of equity settled performance share units	Weighted average price
Outstanding, December 31, 2020	-	CAD\$ -
Granted	10,773,000	0.40
Released from escrow	(2,193,250)	0.40
Outstanding, December 31, 2021	8,579,750	CAD\$ 0.40
Released from escrow	(6,579,750)	0.40
Outstanding, December 31, 2022 and August 18, 2023	2,000,000	CAD\$ 0.40

15. Disclosure Controls and Procedures and Internal Controls over Financial Reporting

Disclosure controls and procedures are intended to provide reasonable assurance that information required to be disclosed is recorded, processed, summarized, and reported within the time periods specified by securities regulations and that the information required to be disclosed is accumulated and communicated to management. Internal controls over financial reporting are intended to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS. In connection with National Instrument 52-109 (Certificate of Disclosure in Issuer's Annual and Interim Filings) ("NI 52-109"), the Chief Executive Officer and Chief Financial Officer of the Company have filed a Venture Issuer Basic Certificate with respect to the financial information contained in the condensed interim consolidated financial statements for the three and six months ended June 30, 2023, and 2023, and this accompanying MD&A (together, the "Interim Filings").

In contrast to the full certificate under NI 52-109, the Venture Issuer Basic Certificate does not include representations relating to the establishment and maintenance of disclosure controls and procedures and internal control over financial reporting, as defined in NI 52-109. For further information, the reader should refer to the Venture Issuer Basic Certificates filed by the Company on SEDAR at www.sedar.com.