Metamaterial Inc.

(formerly Continental Precious Minerals Inc.)

Management Discussion and Analysis

For the nine months ended September 30, 2020

Management Discussion and Analysis
September 30, 2020

The effective date of this Management's Discussion and Analysis is January 8, 2021.

INTRODUCTION

Management's Discussion and Analysis ["MD&A"] of the financial condition and results of the operations of Metamaterial Inc. ["META" or the "Company"] constitutes management's review of the factors that affected the Company's financial and operating performance for the three and nine months ended September 30, 2020. This MD&A has been prepared in compliance with the requirements of National Instrument 51-102 – Continuous Disclosure Obligations. This discussion should be read in conjunction with the unaudited amended and restated interim condensed consolidated financial statements of the Company for the three and nine month periods ended September 30, 2020 and 2019 ("Q3-2020" & "9M-2020" and "Q3-2019" & "9M-2019", respectively), together with the notes thereto. Results are reported in Canadian dollars, unless otherwise noted. In the opinion of management, all adjustments (which consist only of normal recurring adjustments) considered necessary for a fair presentation have been included in the MD&A. Information contained herein is presented as at January 8, 2021, unless otherwise indicated.

The Company's unaudited interim condensed consolidated financial statements and the financial information contained in the MD&A are prepared in accordance with International Financial Reporting Standards ("IFRS").

For the purposes of preparing this MD&A, management, in conjunction with the Board of Directors, considers the materiality of information. Information is considered material if: (i) such information results in, or would reasonably be expected to result in, a significant change in the market price or value of the Company's common shares; (ii) there is a substantial likelihood that a reasonable investor would consider it important in making an investment decision; or (iii) it would significantly alter the total mix of information available to investors. Management, in conjunction with the Board of Directors, evaluates materiality with reference to all relevant circumstances, including potential market sensitivity.

Further information about the Company and its operations can be obtained from the offices of the Company, from the Company's website or on SEDAR at www.sedar.com.

FORWARD-LOOKING STATEMENTS

This MD&A contains certain forward-looking information and forward-looking statements, as defined in applicable securities laws (collectively referred to herein as "forward-looking statements"). These statements relate to future events or the Company's future performance. All statements other than statements of historical fact are forward-looking statements. Often, but not always, forward-looking statements can be identified by the use of words such as "plans", "expects", "is expected", "budget", "scheduled", "estimates", "continues", "forecasts", "projects", "predicts", "intends", "anticipates" or "believes", or variations of, or the negatives of, such words and phrases, or statements that certain actions, events or results "may", "could", "would", "should", "might" or "will" be taken, occur or be achieved. Forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause actual results to differ materially from those anticipated in such forward-looking statements. The forward-looking statements in this MD&A speak only as of the date of this MD&A or as of the date specified in such statements.

This information includes, but is not limited to, comments regarding:
- the Company's business strategy;
- the Company's strategy for protecting its intellectual property;
- the Company's ability to obtain necessary funding on favorable terms or at all;
- the Company's plan and ability to secure revenues;
- the risk of competitors entering the market;

- the Company's ability to hire and retain skilled staff;
- the ability to obtain financing to fund future expenditures and capital requirements;
- the Company's plans with respect to its new facility;
- the Company's proposed transaction with Torchlight Energy Resources Inc. ("Torchlight"); and
- the impact of adoption of new accounting standards.

Although the Company believes that the plans, intentions and expectations reflected in this forward-looking information are reasonable, the Company cannot be certain that these plans, intentions, or expectations will be achieved. Actual results, performance, or achievements could differ materially from those contemplated, expressed or implied by the forward-looking information contained in this report. Disclosure of important factors that could cause actual results to differ materially from the Company's plans, intentions, or expectations are included in this report under the heading Risk Factors.

Forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause the Company's actual results, performance or achievements to be materially different from any of its future results, performance or achievements expressed or implied by forward-looking statements. All forward-looking statements herein are qualified by this cautionary statement. Accordingly, readers should not place undue reliance on forward-looking statements. The Company undertakes no obligation to update publicly or otherwise revise any forward-looking statements whether as a result of new information or future events or otherwise, except as may be required by law. If the Company does update one or more forward-looking statements, no inference should be drawn that it will make additional updates with respect to those or other forward-looking statements, unless required by law.

COMPANY OVERVIEW

The Company was originally incorporated on August 15, 2011 as Lamda Guard Canada Inc. The Company amended its articles of incorporation on March 27, 2013 and continued operations under the name Metamaterial Technologies Inc. since April 30, 2013. On March 28, 2013, the Company federally incorporated Lamda Guard Inc., Lamda Lux Inc., and Lamda Solar Inc., as wholly owned subsidiaries of the Company. These subsidiaries have minimal operational activity. The Company specializes in designing and producing nanocomposite transparent materials with properties not found in nature that can manipulate light, either by enhancing, absorbing or blocking it.

On September 7, 2015, the Company incorporated Metamaterial Technologies USA Inc. ["MTI USA"] as a wholly owned subsidiary and on May 25, 2016 MTI USA acquired the assets and operations of a business operating as Rolith Inc. On March 31, 2018, the Company acquired 100% of the common shares of a business operating as Medical Wireless Sensing Ltd. ["MediWise"] incorporated in the United Kingdom.

On March 5, 2020, Metamaterial Inc. (formerly known as Continental Precious Minerals Inc., "CPM") and Metamaterial Technologies Inc. ("MTI") completed a business combination by way of a three-cornered amalgamation pursuant to which MTI amalgamated with Continental Precious Minerals Subco Inc. ("CPM Subco"), a wholly owned subsidiary of CPM to become "Metacontinental Inc." (the "RTO"). The RTO was completed pursuant to the terms and conditions of an amalgamation agreement dated August 16, 2019 between CPM, MTI and CPM Subco, as amended March 4, 2020. Following completion of the RTO, Metacontinental Inc. is carrying on the business of the former MTI, as a wholly-owned subsidiary of CPM. In connection with the RTO, CPM changed its name effective March 2, 2020 from Continental Precious Minerals Inc. to Metamaterial Inc. ("META" or "Resulting Issuer"). The common shares of CPM were delisted from the TSX Venture Exchange on March 4, 2020 and were posted for trading on the Canadian Securities Exchange ("CSE") on March 9, 2020 under the symbol "MMAT". See additional information regarding the RTO in the Company's unaudited interim condensed consolidated financial statements of the Company for the three and nine month periods ended September 30, 2020 and 2019.

DESCRIPTION OF BUSINESS, OPERATIONAL OVERVIEW and BUSINESS OBJECTIVE

The Company has generated a portfolio of intellectual property and is now moving toward commercializing products at a performance and price point combination that has the potential to be disruptive in multiple market verticals. The Company's platform technology includes holography, lithography and medical wireless sensing. The underlying approach that powers all of the Company's platform technologies comprises advanced materials, metamaterials and functional surfaces. These materials include structures that are patterned in ways that manipulate light, heat and electromagnetic waves in unusual ways. The Company's advanced structural design technologies and scalable manufacturing methods provide a path to broad commercial opportunities in aerospace, medical, automotive, energy and other industries.

Controlling light, electricity and heat have played key roles in technological advancements throughout history. Advances in electrical and electromagnetic technologies, wireless communications, lasers, and computers have all been made possible by challenging our understanding of how light and other types of energy naturally behave, and how it is possible to manipulate them.

Over the past 20 years, techniques for producing nanostructures have matured, resulting in a wide range of ground-breaking solutions that can control light and heat at very small scales. Some of the areas of advancement that have contributed to these techniques are photonic crystals, nanolithography, plasmonic phenomena and nanoparticle manipulation. From these advances, a new branch of material science has emerged – metamaterials. Metamaterials are composite structures, consisting of conventional materials such as metals and plastics, that are engineered by Company scientists to exhibit new or enhanced properties relating to reflection, refraction, diffraction, filtering, conductance and other properties that have the potential for multiple commercial applications.

A metamaterial typically consists of a multitude of structured unit nano-cells that are comprised of multiple individual elements. These are referred to as meta-atoms. The individual elements are usually arranged in periodic patterns that, together, can manipulate light, heat or electromagnetic waves. Development strategies for metamaterials and functional surfaces focus on structures that produce unusual and exotic electromagnetic properties by manipulating light in ways that have never been naturally possible. They gain their properties not as much from their composition as from their exactingly designed structures. The precise shape, geometry, size, orientation, and arrangement of these nanostructures affect the electromagnetic waves of light to create material properties that are not easily achievable with conventional materials.

The Company's platform technology (holography, lithography and medical wireless sensing) is being used to develop potentially transformative and innovative products for: aerospace and defence, automotive, energy, healthcare, consumer electronics, and data transmission. The Company has many product concepts currently in different stages of development with multiple customers in diverse market verticals. The Company's business model is to co-develop innovative products or applications with industry leaders that add value. This approach enables the Company to understand market dynamics and ensure the relevance and need for the Company's products.

Holography Technology

Holography is a technique where collimated visible wavelength lasers are used to directly write an interference pattern inside the volume of light-sensitive material (photopolymer) in order to produce highly transparent optical filters and holographic optical elements. For some product lines that require large surface areas, this is combined with a proprietary scanning technique, where the lasers, optically or mechanically, directly write nano-patterns to cover large surface areas with nanometer accuracy.

The Company's current principal product relating to holography technology is metaAIR® laser glare protection eyewear. The Company has co-developed an eyewear product with Airbus that has been engineered to provide laser glare protection for pilots, military and law enforcement using the Company's holography technology. metaAIR® is a holographic optical filter developed using nano-patterned designs that block and deflect specific colors or wavelengths of light. The Company launched metaAIR with strategic and exclusive distribution partner, Satair, a wholly owned Airbus company and started producing and selling metaAIR® in April 2019. During 2019, the Company had certain yield issues while processing its lenses with a subcontractor, which it expects to overcome. The scale-up and specification for the raw photopolymer material used to produce the eyewear was successfully finalized in 2019.

The Company's current product in development that utilizes its proprietary holography technology is metaOPTIX™, a holographic optical elements ("HOEs"). HOEs are a core component in the display of augmented reality smart glasses products, as well as (in their larger version) in Heads-Up Displays ("HUDs") in automobiles and aircrafts. The HOEs require precise control of the nanostructures recorded in them, which is a core expertise of the Company. The Company is currently seeking a strategic partner to commercialize metaVISION™ in the consumer electronics, aerospace and automotive industries.

The Company operates its holographic division from Dartmouth, Nova Scotia, Canada. During Q3-2020, the Company recorded development revenue of $222,997 (Q3-2019 – $176,284) from its holography technology and $Nil product sales from it's metaAIR eyewear (Q3-2019 - $627). For nine months ended September 30, 2020, the Company recorded development revenue of $857,179 (2019 – $528,853) from its holography technology and $2,615 (2019 – $11,315) from product sales of it's metaAIR eyewear.

Lithography Technology

In order to meet the performance, fabrication-speed, and/or cost criteria required for many potential applications that require large area and low cost nanopatterning. The Company has developed a new nanolithography method called "Rolling Mask" lithography (registered trademark RML®), which combines the best features of photolithography, soft lithography and roll-to-plate/roll-to-roll printing capability technologies. Rolling Mask Lithography utilizes a proprietary UV light exposure method where a master pattern is provided in the form of a cylindrical mask. These master patterns are designed by the Company and over the years they have become part of a growing library of patterns, enriching the intellectual property ("IP") of the Company. The nanostructured pattern on the mask is then rolled over a flat surface area writing a nano-pattern into the volume of a light-sensitive material (a photoresist), creating patterned grooves, metal is then evaporated and fills the patterned grooves. The excess metal is then removed by a known post-process called lift-off. The result is an invisible conductive metal mesh-patterned surface (registered trademark NanoWeb®) that can be fabricated onto any glass or plastic transparent surface in order to offer high transparency, high conductivity and low haze smart materials.

The Company's current principal prototype product in lithography technology is its transparent conductive film, NanoWeb®. The lithography division operates out of the Company's wholly owned U.S. subsidiary, which can produce meter-long samples of NanoWeb®, at a small volumes scale, for industry customers/partners.

There are five NanoWeb®-enabled products and applications that are currently in early stages of development including NanoWeb® for Transparent EMI Shielding, NanoWeb® for Transparent Antennas, NanoWeb® for Touch Screen Sensors, NanoWeb® for Solar cells and NanoWeb® for Transparent Heating to de-ice and de-fog. More details of these products and applications can be found in META's CSE listing statement.

In the last 6 months, the Company has been ordering and upgrading its equipment at its California facility to efficiently supply NanoWeb® samples in larger volumes. The Company has entered into a collaboration agreement with Crossover Solutions Inc. to commercialize the NanoWeb®-enabled products and applications for the automotive industry with ADI Technologies to help secure contracts with the US Department of Defense.

During Q3-2020, the Company recorded development revenue of $40,017 (2019 - $34,776) (For nine months ended September 30, 2020 – $290,523 and 2019 - $130,412) from its lithography technology.

Wireless Sensing Technology

Wireless Sensing is the ability to cancel reflections (anti-reflection) from the skin to increase the Signal-to-Noise-Ratio ("SNR") transmitted through body tissue to enable better medical diagnostics. This breakthrough wireless sensing technology is made using proprietary patterned designs, printed on metal-dielectric structures on flexible substrates that act as anti-reflection (impedance-matching) coatings when placed over the human skin in combination with medical diagnostic modalities, such as MRI, ultrasound systems, non-invasive glucometers etc. For example, as a medical imaging application, The Company is developing metaSURFACE™ (also known as RadiWise™) an innovation which allows up to 40 times more energy to be transmitted through the human tissue, instead of being reflected. The benefit is increased diagnostic speed and imaging accuracy leading to patient throughput increases for healthcare providers. The metaSURFACE™ device consists of proprietary non-ferrous metallic and dielectric layers that are exactingly designed to interact (resonate) with radio waves allowing the waves to "see-through the skin".

The Company is developing wireless sensing applications from its London, UK office and advancing the wireless sensing technology with Innovate UK grants.

During Q3-2020, the Company recorded development revenue of $nil (Q3-2019 - $4,813) and $nil for 9M-2020 (9M-2019 - $4,813) from its wireless sensing technology.

OVERALL PERFORMANCE, INDUSTRY TRENDS AND ECONOMICS FACTORS

In Q1 2019, the Company completed the setup of its metaAIR eyewear production facility and started providing its eyewear to several airlines for in-market flight tests through its distributor, Satair (an Airbus Company). The Company sold 50 units during 2019 and it is further increasing its reach to airlines through Airbus and Satair. Satair prepared a series of marketing initiatives to promote the Company's laser glare protection eyewear solution to increase market awareness in the existing laser glare protection market. During May 2019, the Company received the prestigious Silver A' Design Award in Safety Clothing and Personal Protective Equipment Design Category, from the A' Design Award and Competition in Italy for its metaAIR eyewear.

In January 2019, the Company was named one of the Global Cleantech 100 companies in the world, out of over 13,000 innovators from over 90 countries. Also in January 2019, the Company, Dalhousie University and Mitacs announced a $1,620,000 collaboration to explore different areas of application of metamaterial including absorption enhancement of ultra-thin solar cells, light emission enhancement for LEDs, development of next-generation optics for augmented reality applications and development of a wearable thin-film glucose sensor. This was Mitacs' largest supported project in Atlantic Canada.

In June 2019, the Company's quality management system was awarded ISO 9001: 2015 certificate in the area of design, development, manufacturing, and distribution of metamaterials for applications in Photonics, Transportation, Renewable Energy, Aviation, Space and Defense.

In June 2019, the Company entered into a statement of work ("SOW") with a third party for the purchase of manufacturing equipment. The SOW was initiated based on the Industrial and Regional Benefits ("IRB") general investment funding between the third party and the Government of Canada. The Company received the funding of $1,300,000 in two tranches, one in June 2019 and the second in October 2019 and acquired the related equipment in July 2019. The $1,300,000 received under the SOW is repayable based on 10% of the revenue from the sale of holographic film for augmented or virtual reality that is produced using the related manufacturing equipment.

During Q2 2019, the team at the Company's wholly owned U.K. based subsidiary, Mediwise, tested, in a clinical environment, its medical device prototypes that increased the image quality of 1.5T MRI scans.

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In August 2019, the Company, through its U.S. wholly owned subsidiary, MTI USA, signed an agreement with SOFWERX, an innovation hub acting as a partnership intermediary for the United States of America Government as represented by United States Special Operation Command to develop NanoWeb® films for de-fogging applications to be applied on wearable equipment such as gas masks and diving masks. During Q4 2019, the Company's designs were reviewed with the SOFWERX team and in Q1 2020 the Company demonstrated a working prototype to SOFWERX resulting in approval to move to the next stage including delivery of 40 samples.

During December 2019, META's Company received a purchase order for its second holographic product HOEs from an established consumer electronic industry leader.

During Q4 2019, the engineering team worked on a plan to set up lithographic capabilities in Canada and enhance the lithography fabrication equipment at the Company's facility located in Silicon Valley, California.

During 2019 and throughout 2020, the Company was paid to deliver NanoWeb® proof of concept and product samples to large blue-chip Original Equipment Manufacturers in Japan, Israel, USA, South Korea, Germany, and China. In addition, the Company secured Purchase Orders and delivered NanoWeb® samples for testing in solar and energy product applications.

On April 3, 2020, META closed a Secured Debenture financing from BDC Capital Inc., a wholly owned subsidiary of the Business Development Bank of Canada, in the amount of $5,000,000 ("Secured Debenture Financing"). See additional information regarding Secured Debenture Financing in the section entitled 'Liquidity and Capital Resources". Additionally, and also on April 3, 2020, the Company received an additional $500,000 in Unsecured Convertible Debentures.

On May 26, 2020, the Company's Chief Financial Officer and Corporate Secretary resigned.

On June 1, 2020, Mark Gosine was appointed Corporate Secretary and Keith Abriel was appointed Interim Chief Financial Officer.

On August 31, 2020, the Company announced it had signed a lease for an approximately 53,000 square foot facility, which will host the Company's holography and lithography R&D labs and the next phase of META's volume manufacturing. META expects to open the facility in Q2-2021, following leasehold improvements. The term of the lease for the new facility is ten years, commencing on January 1, 2021. Commencing in September 2021, the Company will pay monthly basic rent of CAD $28,708 and additional rent for its proportionate share of operating costs and property taxes of CAD $24,910 per month, subject to periodic adjustments. In conjunction with signing the lease, the Company has entered into a loan agreement with the landlord in the amount of $500,000 to fund leasehold improvements. The loan carries an interest rate of 5% per annum and is repayable in equal monthly blended payments of principal and interest over a period of seven years, and as of the date of this MD&A remains available and undrawn.

On September 15, 2020, the Company entered into a non-binding Letter of Intent (the "LOI") with Torchlight Energy Resources Inc. ("Torchlight") (NASDAQ: TRCH) for Torchlight to acquire 100% of the Company through the issuance of common shares of **T**orchlight (the "Proposed Transaction"). Completion of the Proposed Transaction subject to satisfactory completion of a number of conditions, including but not limited to:

- completion of due diligence by the Company and Torchlight;
- negotiation of a Definitive Agreement;
- Board of Director and Shareholder approvals; and
- all regulatory approvals.

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Following the completion of the Proposed Transaction, as presently contemplated, the shareholders of the Company would own approximately 75% of the combined entity (the "Combined Entity'). This approximate ownership split assumes that the Combined Entity completes a financing of US$10 million or more, net of Torchlight's debt prior to closing of the Proposed Transaction. Pursuant to the LOI and on September 20, 2020, Torchlight loaned US$500,000 to the Company, and Torchlight will loan the META an additional US$500,000 within 5 days of signing the Definitive Agreement, both in the form of an Unsecured Convertible Promissory Note, the deadline for which has been mutually extended until December 11, 2020. There can be no assurances that the Proposed Transaction will be consummated as a result of the LOI.

During Q3-2020, the Company signed a three-year supply deal with Covestro Deutschland AG, which will provide early access to new photo-sensitive holographic film materials, the building block of META's holographic product. This agreement will not only allow early access to Covestro's R&D library of photopolymer films but will also accelerate META's product development and speed of innovation. Target markets include photonics/optical filters and holographic optical elements, diffusers, laser eye protection, optical combiners, and AR (augmented reality) applications.

Subsequent to September 30, 2020, the Company entered into a contribution agreement with Atlantic Canada Opportunities Agency ("ACOA" and the "ACOA Contribution") for funding from the Regional Relief and Recovery Fund ("RRRF") under ACOA's Regional Economic Growth Through Innovation - Business Scale-up and Productivity stream. The RRRF is part of the Federal government's COVID-19 economic response plan. Pursuant to the contribution agreement, the Company will receive an interest-free loan of up to $390,000, repayable in 36 monthly installments starting April 1, 2023. The amount available to be drawn under the loan is based on eligible expenses incurred by the Company since March 15, 2020.

Also subsequent to September 30, 2020, META entered into a commitment letter (the "Commitment Letter") with a shareholder of META, pursuant to which the shareholder will provide up to $5,500,000 in debt financing (the "Bridge Loan") to fund META's continued operations while the Company works toward completion of the Proposed Transaction with Torchlight. Pursuant to the Commitment Letter, the Company will be able to draw up to $500,000 monthly beginning in November 2020. The Bridge Loan bears interest at the rate of 8% per annum, payable monthly in arrears. The principal amount and any accrued but unpaid interest will be due and payable on the 10th business day after the closing of the Proposed Transaction, or on November 29, 2022 if the Proposed Transaction does not close before that date. At the option of the holder, the Bridge Loan or any portion of the Bridge Loan and accrued but unpaid interest is convertible into META Common Shares at a conversion price of $0.50 per share, subject customary adjustments. The Company may repay the Bridge Loan in whole or in part, without penalty, at any time on or after March 28, 2021.

On December 14, 2020, the Company executed an Arrangement Agreement with Torchlight Energy Resources, Inc. The agreement calls for Torchlight and Metamaterial to be combined such that at closing, the former equity holders of Torchlight would own approximately 25% of the combined company with the former equity holders of Metamaterial owning the remaining approximately 75% of the combined company. Prior to closing, Torchlight must raise gross proceeds of at least $10 million through the issuance of common stock or securities convertible into or exercisable for common stock, less USD $1 million of loans Torchlight has made to Metamaterial. The closing of the transaction is subject to the satisfaction or waiver of customary closing conditions, including approvals by NASDAQ and the Canadian Securities Exchange ("CSE"), Canadian court approval, and approval by the shareholders of both companies. There can be no assurances that the Transaction will be consummated.

On December 14, 2020, the Company announced the hiring of Kenneth L. Rice Jr. as CFO and EVP. Mr. Rice will replace the Company's Interim CFO, Keith Abriel and, assuming the transaction described above is closed, he will be named CFO of the combined company. In connection with his hiring, the Board of Directors, in accordance with the Company's ESOP, granted options to Mr. Rice to purchase 300,000 shares of the common stock of the Company at a purchase price of CAD $0.62 per share. The newly granted options vest over varying times from immediately to 4 years.

On December 17, 2020, the Company announced the hiring of Dr. Jonathan Waldern a Chief Technical Officer. In connection with his hiring, the Board of Directors, in accordance with the Company's ESOP, granted options to Dr. Waldern to purchase 1,115,000 shares of the common stock of the Company at a purchase price of CAD $0.62 per share to vest evenly over a 4-year period.

On December 16, 2020, the Company issued an unsecured, convertible promissory note to Torchlight Energy Resources in the amount of USD $500,000. The note and interest are due in 24 months and bears interest at 8% per annum. If the above referenced Arrangement Agreement is terminated, the Torchlight has the right to convert the principal and accrued interest on the note to common stock of the Company at a conversion price of CAD $0.62 per share.

On December 15, 2020, the Company granted options to purchase a total of 474,000 shares of the common stock of the Company at a purchase price per share of CAD $0.62 per share such options to vest over a period of 1 to 3 years depending on the grantee.

During the three and nine months ended September 30, 2020, META incurred a comprehensive loss of $3,464,080 and $12,275,810 respectively, compared to $3,415,076 and $7,872,895 in Q3-2019 and nine months ended September 30, 2019, respectively, representing an increase of 1% and 56%, respectively. The increase in the comprehensive loss for the nine months ended September 30, 2019. is primarily due to the completion of the RTO, which resulted in the recognition of $3,370,249 in listing and exchange fees, an increase in net salaries and benefits, as well as increases in depreciation and amortization, stock-based compensation, professional fees, and interest and bank charges, offset by a decrease in travel and entertainment as a result of COVID-19 and significant unrealized gains on the changes in the Fair Value Through Profit or Loss ("FVTPL") related to the unsecured convertible debentures, unsecured convertible promissory notes and the secured convertible debentures. Refer to "Results of Operations" below for further details.

Research and product development

As at the date of the MD&A, META has 6 registered trademarks, 54 patents granted in 21 patents families and 35 patents pending. The Company believes that its combination of patents and additional IP that is being held confidential by way of multiple Trade Secrets provides the Company with an important competitive advantage, marketing benefits, and licensing revenue opportunities.

COVID-19 IMPACT

During Q1-2020, the COVID-19 outbreak was declared a pandemic by the World Health Organization. This has resulted in governments worldwide enacting emergency measures to combat the spread of the virus. In response to this, the Company's management implemented a Work From Home policy for management and non-engineering employees in all three locations, and further developed additional safety protocols to address the pandemic. Engineering staff in all three locations are continuing to work on given tasks and are following strict safety guidelines. Although the Company's supply chain has slowed down to a degree, the Company is currently able to maintain inventory of long lead items and is working with its suppliers to optimize future supply orders.

COVID-19 has negatively impacted the Company's 2020 sales of metaAIR® laser protection eyewear product as worldwide restrictions on travel are significantly impacting the airline industry and purchasing of metaAIR eyewear may not be the primary focus of airlines post COVID-19, however, the Company is pursuing sales in adjacent markets including consumer, military and law enforcement. The situation is dynamic and the ultimate duration and magnitude of the impact on the economy and the financial effect on the Company's business is not known at this time.

The Company's scheduled purchase of equipment to upgrade its California lab facility has been delayed due to supply chain issues as a result of COVID-19. This may result in the Company requiring more capital to execute on its business plan.

SELECTED ANNUAL INFORMATION

The following table sets out selected consolidated financial information for the Company for the last three fiscal years, prepared in accordance with IFRS.

	2019 ($)	2018 ($)	2017 ($)
Total revenue	1,195,058	1,585,191	2,284,233
Cost of goods sold	12,138	—	—
Total expenses	12,385,542	6,696,425	10,624,808
Net loss	(11,083,258)	(5,106,647)	(8,340,575)
Comprehensive loss for the year	(10,836,260)	(5,746,624)	(8,088,288)
Total assets	11,947,746	13,172,716	7,507,238
Non-current financial liabilities [1]	4,707,744	3,108,273	1,691,710
Deficit	(32,282,011)	(21,198,753)	(16,092,105)
Dividends declared - common shares	Nil	Nil	Nil
Loss from continuing operations – per share (basic and diluted) [2]	(1.12)	(0.56)	(1.13)

[1] The non-current financial liabilities are calculated as defined in the CPA Canada handbook and therefore deferred revenue, deferred government assistance, and deferred tax liability, are excluded from total long-term financial liabilities.

[2] Calculated based on the weighted average number of the Company's issued and outstanding common shares during 2019, 2018 and 2017, respectively. The diluted loss per share does not include the effect of the Company's preferred shares, the Company's deferred share units ("DSUs"), the Company's options, and the Company's warrants as they are anti-dilutive.

SELECTED QUARTERLY RESULTS

The following table sets out selected quarterly information and highlights for the last eight quarters:

	09/30/20 Restated	06/30/20	03/31/20	12/31/19	9/30/19	6/30/19	3/31/19	12/31/18
Product Sales	—	—	2,615	20,113	627	10,686	—	—
Development revenue	263,014	289,728	594,960	499,554	215,873	257,243	190,962	217,054
Cost of goods sold	1,240	1,840	1,121	7,870	245	4,023	—	—
Gross Profit	261,774	287,888	596,454	511,797	216,255	263,906	190,962	217,054
Expenses (income)								
Salaries and benefits	487,491	914,549	1,199,037	811,007	719,602	782,610	727,556	637,437
Depreciation, amortization and impairment	786,736	842,998	878,902	990,050	838,360	747,492	689,749	657,583
Consulting	306,770	142,218	216,959	226,194	97,091	121,670	103,967	216,134
Investor relations	42,752	49,321	19,506	30,936	—	—	—	—
Research and development	159,143	106,669	118,458	263,639	215,128	154,081	155,628	103,136
Professional fees	305,876	571,373	271,574	301,909	357,856	132,864	53,787	92,811
Non-cash interest	151,466	140,726	143,401	263,538	121,416	112,834	(81,944)	115,408
Share-based compensation	538,806	503,803	450,028	451,908	676,460	282,745	299,839	288,451
Other expenses [1]	685,884	611,206	3,812,554	592,581	484,496	484,040	427,245	613,700
Realized/Unrealized loss (gain) on FVTPL liabilities	453,054	(901,642)	(206,606)	480,179	145,977	(5,073)	241,093	—
Realized/Unrealized foreign currency exchange loss (gain)	244,570	420,021	(788,819)	150,512	(100,346)	191,431	176,828	(495,871)
Government assistance	(147,069)	(88,714)	(61,756)	(233,154)	(45,671)	(254,440)	(467,168)	(228,494)
Other income	(1,827)	—	—	(530,960)	—	—	—	—
Income tax (recovery) expense	44,161	(39,360)	(64,429)	8,951	(44,901)	(53,139)	(30,275)	98,894
Net loss for the quarter	(3,707,717)	(2,985,280)	(5,392,355)	(3,295,493)	(3,249,213)	(2,433,209)	(2,105,343)	(1,882,135)
Loss per share – basic and diluted [2]	(0.04)	(0.04)	(0.12)	(0.31)	(0.33)	(0.25)	(0.22)	(0.19)

[1] Other expenses includes travel and entertainment, subscriptions and licenses, office supplies, postage and shipping, insurance, repair and maintenance, janitorial services, telephone, training, IT support, rent and utilities, interest and bank charges, technology license fees, and are net of interest income.

[2] Calculated based on the weighted average number of the Company's issued and outstanding common shares during respective quarters. The diluted loss per share does not include the effect of the Company's preferred shares, the Company's deferred share units, the Company's options, and the Company's warrants as they are anti- dilutive.

Results of Operations for the three months ended September 30, 2020 and 2019

The Company recorded a net loss for the three months ended September 30, 2020 of $3,707,717, or $0.04 per share as compared to a net loss of $3,249,213 or $0.33 per share for the three months ended September 30, 2019. The increase in the loss of $458,504 in the third quarter of 2020 is primarily due to:

- a $46,514 increase in revenue;
- a $193,639 decrease in research and development cost, and share-based compensation expenses;
- a $51,980 decrease in professional fees;
- a $240,983 decrease in salaries, depreciation, amortization and investor relations expenses;
- a $374,966 increase in realized and unrealized foreign exchange loss, and an increase in non-cash interest and;
- a $616,654 net increase in expenses as further explained below.

$46,514 increase in revenue

The major revenue stream for the three months ended September 30, 2020 is Development revenue of $263,014 (Q3- 2019 – $215,873). For Q3-2020, the Company recognized approximately $12,000 from Elbit Systems, approximately $40,000 from the Boeing Company and approximately $176,000 from Lockheed Martin.

On September 18, 2018, the Company signed an exclusive distribution agreement with Satair A/S for a term of 10 years and received $1,299,700 as distribution fees. During the three months ended September 30, 2020 the Company has recognized approximately $33,000 in revenue related to these distribution rights.

There were no product sales for the three months ended September 30, 2020 (Q3-2019 $627).

$193,639 decrease in research and development cost, and share-based compensation expenses;

This decrease was due to a decrease in research and development expenditures in the amount of $55,985 and by a decrease in share-based compensation expense in the amount of $137,654. Research and development costs were lower as a result of decreased lab time and materials consumption due to the operational impact of COVID-19. Non-cash share-based compensation decreased as a result of the limited number of stock options granted since the completion of the RTO and the RTO related stock option grants, and there were a number of stock options that expired during Q3-2020.

$51,980 decrease in professional fees;

This decrease in Q3-2020 is primarily due to significantly increased legal and advisory fees as a result of the RTO and public listing process which had begun to be incurred during Q3-2019 and were all incurred prior to Q3-2020. The Company expects professional fees to increase as it continues to advance the Proposed Transaction with Torchlight.

$240,983 decrease in salaries, depreciation, amortization, impairment and investor relations expenses;

The decrease is due to a decrease in Salaries and Benefits expense in the amount of $232,111; a decrease in Depreciation and Amortization expense in the amount of $51,624, and an increase in Investor Relations expense in the amount of $42,752. Salaries and Benefits decreased due to the recognition of Canada Emergency Wage Subsidy ("CEWS") claim of $472,020, which has been recorded as a reduction of salaries and benefits expenses. Depreciation and Amortization decreased as the result of the Company having lower capital equipment and intangible asset balances at September 30, 2020 as compared to September 30, 2019. Investor Relations is a new line item that the Company has started to incur and track as a result of the RTO, and includes items such as investor communications and investor relations advisors.

$374,966 increase in realized and unrealized foreign exchange gain, and an increase in non- cash interest and;

During Q3-2020, the Company recognized realized and unrealized foreign exchange loss of $244,570 as compared to realized and unrealized foreign exchange gain of $100,346 in Q3-2019 as global currencies experienced significant fluctuations as a result of COVID-19. Additionally, non-cash interest accretion was higher as a result of higher ACOA debt levels in Q3-2020 as compared to Q3-2019.

$616,654, net increase in expenses as further explained below;

The overall increase in all other expenses was primarily due to a decrease in travel and entertainment of $80,278 due to travel restrictions imposed due to COVID-19; an increase in interest and bank charges in the amount of $209,476 due to higher debt levels in Q3-2020 as compared to Q3-2019; and unrealized losses on Fair Value Through Profit of Loss ("FVTPL") liabilities as the Company records its unsecured convertible debentures, secured convertible debentures and unsecured convertible promissory note at their estimated fair values at each balance sheet date. Offsetting the net increase are higher amounts of certain government assistance in the amount of $101,398 as the timing of government assistance receipts is normally lumpy over the course of any given year.

Results of Operations for the nine months ended September 30, 2020 and 2019

The Company recorded a net loss for the nine months ended September 30, 2020 of $12,085,350, or $0.14 per share as compared to a net loss of $7,768,746 or $0.80 per share for the period ended September 30, 2019. The increase in the loss of $4,316,604 in the nine months ended September 30, 2020 as compared to September 30, 2019 is primarily due to:

- a $474,924 increase in revenue;
- a $32,708 increase in research and development cost, and share-based compensation expenses;
- a $604,312 increase in professional fees;
- a $705,446 increase in salaries, depreciation, amortization and investor relations expenses;
- a $125,594 decrease in realized and unrealized foreign exchange gain, and an increase in non- cash interest and;
- a $3,574,656 net increase in expenses as further explained below.

$474,924 increase in revenue

The major revenue stream for nine months ending September 30, 2020 was Development revenue of $1,147,702 (2019 – $664,078), an increase of 73%. During nine months ended September 30, 2020, the Company recognized revenues from various customers, included but not limited to Elbit Systems, Lockheed Martin, The Boeing Company, SolAero and CORNES Technologies, accounting for the increase.

Product sales for the nine months ended September 30, 2020 were $2,615 (2019 - $11,315) as sales of the Company's metaAIR laser protection eyewear have been negatively impacted by COVID-19.

On September 18, 2018, the Company signed an exclusive distribution agreement with Satair A/S for a term of 10 years and received $1,299,700 as distribution fees. During the nine months ended September 30, 2020, the Company recognized approximately $100,000 in revenue related to these distribution rights.

$32,708 increase in research and development cost, and share-based compensation expenses;

This net increase was due to a decrease in research and development expenditures of $140,567 offset by an increase in share-based compensation expense in the amount of $173,275. Research and development costs were lower as a result of decreased lab time and materials consumption due to COVID-19. Non-cash share-based compensation expense increased as a result of the higher number of stock options outstanding during the nine months ended September 30, 2020 and the extension of certain warrants as part of the RTO, which resulted in an incremental stock-based compensation charge.

$604,312 increase in professional fees;

This increase is primarily due to significantly increased legal, advisory and audit expenses as a result of the RTO and the accompanying public listing related costs, as well as costs associated with the Proposed Transaction with Torchlight.

$705,446 increase in salaries, depreciation, amortization, impairment and investor relations expenses;

The increase was due to an increase in Salaries and Benefits expense in the amount of $398,042; an increase in Depreciation and Amortization expense in the amount of $195,825, and an increase in Investor Relations expense in the amount of $111,579. Salaries and Benefits increased due to certain management bonuses and a few salary increases. Depreciation and Amortization increased as a result of continued amortization of previously acquired capital equipment and intangible assets. Investor Relations increased as a direct result of META becoming a public company in Q1-2020.

$125,594 decrease in realized and unrealized foreign exchange gain, and an increase in non- cash interest and;

During nine months ended September 30, 2020, the Company recognized realized and unrealized foreign exchange gains of $140,969 as compared to realized and unrealized foreign exchange losses of $267,913 as global currencies experienced significant fluctuations as a result of COVID-19. Additionally, non-cash interest accretion was higher as a result of higher ACOA debt levels.

$3,574,656 net increase in expenses as further explained below;

The overall increase in all other expenses was primarily due to an increase in listing expenses in the amount of $3,370,249 recognized as a result of the RTO; an increase in interest and bank charges in the amount of $449,021 as a result of higher debt levels; increased consulting fees in the amount of $342,333 due to increased use of consultants for both R&D purposes and as a result of the RTO; offset by a decrease in travel and entertainment in the amount of $216,135 due to travel restrictions imposed due to COVID-19; a decrease in certain types of government assistance totaling $344,916, the receipt of which is always lumpy; and significant unrealized gains resulting from the fair value adjustments to the secured convertible debentures, the unsecured convertible debentures and the unsecured convertible promissory notes during nine months ended September 30, 2020.

LIQUIDITY AND CAPITAL RESOURCES

Continued operations of the Company are dependent on the Company's ability to complete equity and/or debt financings and generate profitable operations in the future. The Company has not generated significant revenue, and has incurred a net loss of $12,085,350 and negative cash flow from operations of $7,413,590 for the nine months ended September 30, 2020 and has an accumulated deficit of $44,367,361 as at September 30, 2020.

As at September 30, 2020, the Company had cash of $3,208,911, as compared to $528,691 as at December 31, 2019. As at September 30, 2020, the Company has working capital of $756,578, defined as current assets less current liabilities, compared to a working capital deficit of $9,304,567 as at December 31, 2019. The total increase in the working capital position of $10,061,145 during the period is primarily a result of the completion of the RTO, the issuance of $5,000,000 in Secured Convertible Debentures, the issuance of an additional $950,000 in Unsecured Convertible Debentures, and the issuance of US$500,000 in Unsecured Convertible Promissory Notes. The completion of the RTO resulted in the conversion of the Promissory Notes into META Common Shares and the extinguishment of the accompanying derivative liability, which resulted in a total increase in working capital of $5,771,031. The RTO also provided a cash injection of $4,174,979. A portion of the cash received pursuant to the RTO was used to reduce accounts payable.

In accordance with certain of the ACOA loan agreements, the Company is required to maintain a minimum in equity throughout the term of the loan. However, on November 14, 2019, ACOA waived this requirement for June 30, 2019 and for each period thereafter until the loans are fully repaid.

The Company has continued to focus on securing additional sources of capital. During January 2020, the Company raised additional equity of $875,612 through a private placement of common shares and warrants. On March 9, 2020 and upon completion of the RTO, the Company gained access to CPM's cash and cash equivalents of $4,174,979, which was used to pay down approximately $3.5 million of outstanding trade payables to outside suppliers and professionals at that time. On April 3, 2020, the Company closed a Secured Convertible Debenture financing of $5,000,000 with BDC and incurred $300,617 in legal costs related to the Secured Convertible Debenture financing and repaid an existing equipment loan of $244,400 (total repaid during 9M-2020). Also during 9M-2020, the Company raised an additional $950,000 of Unsecured Convertible Debentures, $450,000 of which occurred in January 2020 and an additional $500,000 of which occurred in April 2020, and the issuance of US$500,000 in Unsecured Convertible Promissory Notes pursuant to the Proposed Transaction with Torchlight.

As of the date of this MD&A, the Company holds cash and cash equivalents of approximately $1.5 million, has a current monthly burn rate, excluding cost of sales, of approximately $900,000, which has increased as a result of incremental costs associated with the Proposed Transaction with Torchlight, and has committed capital expenditures of approximately $2.5 million. Additionally, as of the date of this MD&A and giving consideration to the secured and available but not yet drawn debt facilities discussed herein, the Company's cash runway is approximately 2 – 4 months, assuming no product sales Management and the Board are closely monitoring the Company's sales, capital expenditures and monthly burn rate so as to ensure that the Company has sufficient working capital to execute its strategic business plan. Appropriate adjustments to capital expenditures and the monthly burn rate will be made if necessary. Concurrent with focusing on generating sales, management is advancing applications that have been submitted for government grants and or loans, as well as exploring raising additional equity in the capital markets and pursuing debt financings. There are no assurances that any of the aforementioned sources of cash will be available to the Company on acceptable terms, or at all.

Liquidity risk is the risk that the Company will not meet its financial obligations as they become due after use of currently available cash. The Company has a planning and budgeting process to monitor operating cash requirements, including amounts projected for capital expenditures, which are adjusted as input variables change. These variables include, but are not limited to, the ability of the Company to generate revenue from current and prospective customers, general and administrative requirements of the Company and the availability of equity or debt capital and government funding. As these variables change, it may necessitate the need for the Company to issue equity or obtain debt financing.

Although the Company is currently pursuing financing alternatives, there can be no assurance that additional future financings will be available on acceptable terms or at all. If the Company is unable to obtain additional financing when required, the Company may have to substantially reduce or eliminate planned expenditures. The risk is that the Company's availability of future financings or future profitability cannot be assured. The Company expects to record losses until such time as it further commercializes its products and secures additional customers. These factors indicate the existence of a material uncertainty that may cast significant doubt on the Company's ability to continue as a going concern.

COMMITMENTS AND CONTIGENCIES

On February 12, 2016, the Company received an award in partnership with Polytechnique Montréal for a Collaborative Research and Development Grant from the Natural Sciences and Engineering Research Council for LED emission enhancement using smart metasurfaces, through its subsidiary, Lamda Lux Inc. Under the agreement, the Company was committed to contributing cash of $43,478 per year plus an overhead charge of 15% or $50,000 between March 1, 2016 and February 28, 2019.

On December 8, 2016, the Company entered into a cooperation agreement with a large aircraft manufacturer to co-develop laser protection filters for space and aeronautical civil and military applications (metaAIR) and support the setup of manufacturing facilities for product certification and development. The cooperation agreement includes financial support provided to the Company in the form of non-recurring engineering costs of up to $4,000,000 USD, to be released upon agreement of technical milestones in exchange for a royalty fee due by the Company on gross profit after sales and distribution costs. During 2016, the Company received and recognized $1,000,000 USD as revenue under the cooperation agreement.

In June 2019, the Company entered into a statement of work (“SOW”) with a third party for the purchase of manufacturing equipment. The SOW was initiated based on the Industrial and Regional Benefits (“IRB”) general investment funding between the third party and the Government of Canada and the Company received $1,300,000 during 2019. The funding received under the SOW is repayable based on 10% of the revenue from the sale of holographic film for augmented or virtual reality that is produced using the related manufacturing equipment.

As at September 30, 2020, the Company has the following contractual obligations (based on principal repayments for debt items):

	Payments due by Period				
Contractual Obligations	**Total**	**Less than 1 year**	**1-3 years**	**4-5 years**	**After 5 years**
Long-term debt	$6,464,211	$249,168	$2,192,606	$1,823,976	2,198,461
Leases[1]	$6,635,884	$133,890	$742,000	$1,176,813	$4,583,181
Trade payables	$1,706,788	$1,706,788	—	—	—
Due to related party	$333,182	$333,182	—	—	—
Secured convertible debentures	$5,000,000	—	—	$5,000,000	—
Unsecured convertible promissory notes.	$666,950	—	$666,950	—	—
Unsecured convertible debentures	$1,700,000	—	—	—	$1,700,000
Total	$22,507,015	$2,423,028	$3,601,556	$8,000,789	$8,481,642

[1] Leases includes the impact of the Company’s new lease for it’s new facility described in the Overall Performance, Industry Trends and Economic Factors section of this MD&A.

OFF-BALANCE SHEET ARRANGEMENTS

The Company has no other off-balance sheet arrangements.

PROPOSED TRANSACTIONS

Please see the discussion of the Company's Proposed Transaction with Torchlight in the Overall Performance, Industry Trends and Economic Factors section of this MD&A.

SIGNIFICANT TRANSACTIONS

As described elsewhere herein, the Company has completed the following significant transactions:

- raised net proceeds of $814,270 from the issuance of units in Q1-2020;
- completed the RTO during Q1-2020;
- closed a secured convertible debenture financing of $5,000,000 in Q2-2020;
- closed an additional $950,000 in unsecured convertible debentures in Q1-2020 and Q2-2020; and
- closed US$500,000 in unsecured convertible promissory notes in Q3-2020.

SECURITIES

The Company's outstanding securities as of September 30, 2020 and as of January 8, 2021 are as follows:

Description of Security[1]	Number Of Shares Outstanding as of September 30, 2020	Number Of Shares Outstanding as of the date of the MD&A
Common shares	83,597,092	83,597,092 [3]
Preferred shares A-1 [2]	—	—
Preferred shares A-2 [2]	—	—
Stock options ("ESOP")	10,697,936 [3]	12,586,936 [3&6]
DSUs	1,872,750 [3]	1,872,750 [3]
Warrants	1,651,352 [3&4]	1,651,352 [3&4]
Broker warrants	52,861 [3&4]	52,861 [3&4]
Promissory notes [2]	—	—
Unsecured convertible debentures	2,428,571 [5]	4,428,571 [5&6]
Unsecured convertible promissory notes	1,909,330 [5]	2,840,044 [5&6]
Secured Debenture	7,142,857 [5]	7,142,857 [5]
TOTAL Shares Issued & Outstanding Fully Diluted	**109,352,749**	**114,172,463**

[1] The Company's unaudited amended and restated interim condensed consolidated financial statements provide a detailed breakdown of all securities transactions that occurred during the nine months ended September 30, 2020.

[2] Pursuant to the RTO, all Preferred Shares and Promissory Notes were converted into common shares during Q1-2020.

[3] Pursuant to the RTO, CPM agreed to acquire all of the issued and outstanding the Company's common shares and Class A-1 Preferred Share in exchange for CPM common shares on the basis of 2.75 CPM common shares for each of the Company common share and 4.125 CPM common shares for each of the Company's Class A-2 Preferred Share. Options issued to employees, directors, and consultants, DSUs issued to directors and each outstanding warrant were also converted as per the agreed exchange rate of 2.75:1 upon completion of the RTO.

[4] For every warrant, warrant holders shall have the right to purchase one META common share for $0.90 and for every broker warrant, broker warrant holders shall have the right to purchase one META common share for $0.62.

[5] Unsecured convertible debentures of $1,700,000, excluding interest, are convertible at a value of $0.70 per META common share. The $5,000,000 Secured Debenture, excluding the paid in kind interest, is also convertible at $0.70 per META common share. The unsecured convertible promissory note of US$500,000, excluding interest, is convertible at $0.35 per META common share.

[6] Subsequent to September 30, 2020, the Company granted options to purchase a total of 1,889,000 shares. The Company also issued an unsecured convertible promissory note of US$500,000 which is convertible at a value of $0.62 per META common share excluding interest. Furthermore, the Company withdrew $1,000,000 out of $5,500,000 in debt financing (the "Bridge Loan") which is convertible at $0.50 per META common share excluding interest.

TRANSACTIONS WITH RELATED PARTIES

Related party transactions impacting the accompanying consolidated financial statements for the nine months ended September 30, 2020 are summarized below:

- The Consulting fees includes $71,840 (9M-2019 – $80,800) to directors of the Company related to advisory services provided.
- Technology license fees of $25,885 (9M-2019 - $37,962) to Lamda Guard Technologies Ltd ("LGTL"), a shareholder of the Company, to allow the use of certain patents to the Company as per an exclusive technology license agreement ("License Agreement").
- Reimbursement of rent and utilities from LGTL by MediWise of $34,909 (9M-2019- $29,637) to LGTL to allow the use of its premises in the UK.
- As at September 30, 2020, the Company had a loan totalling $333,182 (December 31, 2019 - $345,033) from LGTL that is unsecured and repayable in full on demand.

RISKS AND UNCERTAINTIES

Current Cash Flow

As of the date of this MD&A and including the impact of the ACOA Contribution and the Bridge Loan discussed in the "Overall Performance, Industry Trends and Economic Factors" section of this MD&A, the Company has working capital for two to four months of operations, depending on the capital spend. In order to fund operations after that period, the Company will need to be generating additional revenue or secure additional capital to fund its operations. Should future funds not be made available to the Company or made available on terms that are commercially reasonable, the Company would be unable to meet its financial obligations and may have cash flow issues that could materially and adversely affect the Company's business, operations, financial condition and results of operations. These factors indicate the existence of a material uncertainty that may cast significant doubt about the Company's ability to continue as a going concern.

Additional Financing and its impact on existing shareholders

With the unforeseen delay in sales, in order to execute on its business plan the Company will likely require additional funding by way of equity, debt or government grants/loans. If additional funds are raised through further issuances of equity or convertible debt securities, existing shareholders could suffer significant dilution. Any debt financing secured in the future could involve restrictive covenants relating to capital raising activities and other financial and operational matters, which may make it more difficult for the Company to obtain additional capital and to pursue business opportunities, including potential acquisitions.

Limited Operating History

The Company has a limited operating history, which can make it difficult for investors to evaluate the Company's operations and prospects and may increase the risks associated with investment in the Company.

The Company is expected to be subject to many of the risks common to early-stage enterprises for the foreseeable future, including challenges related to laws, regulations, licensing, integrating and retaining qualified employees; making effective use of limited resources; achieving market acceptance of existing and future products; competing against companies with greater financial and technical resources; acquiring and retaining customers; and developing new solutions.

Holography Market-Aviation Industry

The Company launched its first product, a laser protection eyewear, named metaAIR®, in March 2019, with a primary focus on the aviation market. The product offers unique performance and benefits over the competition and is the only industry-approved solution to date. The Company has co-developed this product with Airbus through a strategic partnership. Airbus further extended its support by introducing the Company to Satair, an Airbus owned company, which became the global distribution partner for metaAIR® to the aviation market. Since 2016, Airbus and Satair invested a total of USD $2,000,000 for the product development and exclusive distribution rights. Since the launch of metaAIR in March 2019, the Company has sold fifty units to its distributor Satair. The Company is currently in the process of increasing its marketing and sales capacity.

Despite the Company's close collaboration with the Airbus Group, with the impact of COVID-19 there can be no assurance that the aviation market will accept the metaAIR® product at the expected market penetration rates and a slower than forecasted market acceptance may have a material adverse effect on the Holography laser protection related products and the Company's financial position. The Company is pursuing ancillary markets outside of the Aviation Industry for its metaAIR laser protection eyewear such as in law enforcement and defense.

Lithography Product and Market-Automotive

The Lithography related products have not yet reached the required technical maturity and are expected to be launched in two to three years' time after a successful product development completion. Despite the Company's close collaboration with two automotive partners, there can be no assurance that the automotive market will accept the NanoWeb® product at the expected market penetration rates and a slower than forecasted market acceptance may have a material adverse effect on the Lithography de-icing related products and the Company's financial position.

Change in Laws, Regulations and Guidelines

The current and proposed operations of the Company are subject to a variety of laws, regulations and guidelines relating to production, the conduct of operations, transportation, storage, health and safety, medical device regulation and the protection of the environment. These laws and regulations are broad in scope and subject to evolving interpretations, which could require the Company to incur substantial costs associated with compliance or alter certain aspects of its business plan. In addition, violations of these laws, or allegations of such violations, could disrupt certain aspects of the Company's business plan and result in a material adverse effect on certain aspects of its planned operations.

The Company launched a new product metaAIR® in March 2019 to provide laser glare protection to pilots in the airline industry. Currently, metaAIR® is not subject to any Federal Aviation Administration regulations, however, metaAIR® may become subject to evolving regulation by governmental authorities as metaAIR market evolves further.

New Facility and Permits for Lithography Production

The Company's plans to scale its lithography production in Canada is dependent on obtaining adequate additional funding. The Company has announced plans to move into a larger facility suitable to host the Holography and Lithography production scale up as the current facility in Canada does not have enough space or capability for a production line for Lithography. Lithography is a wet chemistry process which requires specific approvals from the local government to allow use of certain chemicals and their disposal.

Any delay in setting up the facility and receiving permits may impact launch and/or development of related products, and also may have a material adverse effect on the Lithography and Holography related products and consequently on the Company's financial position.

Raw Material Source

The Company purchases its holographic raw materials from a tier 1 German manufacturer, which is a single source supplier. Disruption in supply from this supplier may cause a material adverse effect on the Holography related products.

Intellectual Property

The success of the Company will depend, in part, on the ability of the Company to maintain and enhance intellectual property and trade secret protection over various existing and potential proprietary techniques and products. The Company may be vulnerable to competitors who develop competing technology, whether independently or as a result of acquiring access to the proprietary products and trade secrets. In addition, effective future patent, copyright, trademark, and trade secret protection may be unavailable or limited in certain foreign countries and may be unenforceable under the laws of certain jurisdictions.

Research and Market Development

Although the Company, itself and through its investments, is committed to researching and developing new markets and products and improving existing products, there can be no assurances that such research and market development activities will prove profitable or that the resulting markets and/or products, if any, will be commercially viable or successfully produced and marketed. A failure in the demand for products to materialize as a result of competition, technological change or other factors could have a material adverse effect on the business, results of operations and financial condition of the companies in which the Company has or will invest in, and consequently, on the Company.

Costs of Maintaining a Public Listing

As a public company, there are costs associated with legal, accounting, and other expenses related to regulatory compliance. Securities legislation and the rules and policies of the CSE require listed companies to, among other things, adopt corporate governance and related practices, and to continuously prepare and disclose material information, all of which add to a company's legal and financial compliance costs. The Company may also elect to devote greater resources than it otherwise would have on communication and other activities typically considered important by publicly traded companies.

Product Liability Claims

The Company's wireless sensing technology to enhance MRI imaging and non-invasive Glucowise™ monitoring is under development. The Company has performed many experiments on animals and humans and will continue to perform additional experiments as needed to continue the development of the related products.

Any product liability claims or regulatory action against the Company related to wireless sensing products could have a material adverse effect on this business segment of the Company and/or on the Company.

Reliance on Management

The success of the Company is dependent upon the ability, expertise, judgment, discretion, and good faith of its senior management. Any loss of the services of such individuals could have a material adverse effect on the Company's business, operating results, or financial condition.

Currency Fluctuations

The Company's revenues and expenses are denominated in Canadian dollars, US dollars, and British Pounds, and therefore are exposed to significant currency exchange fluctuations. Recent events in the global financial markets have been coupled with increased volatility in the currency markets. Fluctuations in the exchange rate between the US dollar, the Canadian dollar and the British pound may have a material adverse effect on the Company's business, financial condition, and operating results. The Company may, in the future, establish a program to hedge a portion of its foreign currency exposure with the objective of minimizing the impact of adverse foreign currency exchange movements. However, even if the Company develops a hedging program, there can be no assurance that it will effectively mitigate currency risks.

Resale of Shares

There can be no assurance that, an active and liquid market for the Company's common shares will develop or be maintained and an investor may find it difficult to resell any securities of the Company. In addition, there can be no assurance that the publicly traded price of the Company's common shares (META's common shares) will be high enough to create a positive return for investors. Further, there can be no assurance that META's common shares will be sufficiently liquid so as to permit investors to sell their position in META without adversely affecting the stock price. In such event, the probability of resale of META's common shares would be diminished.

Price Volatility of Publicly Traded Securities

In recent years, the securities markets in the United States and Canada have experienced a high level of price and volume volatility, and the market prices of securities of many companies have experienced wide fluctuations in price which have not necessarily been related to the operating performance, underlying asset values or prospects of such companies. There can be no assurance that continuing fluctuations in price will not occur. It may be anticipated that any quoted market for META's common shares will be subject to market trends generally, notwithstanding any potential success of the Company in creating revenues, cash flows or earnings. The value of META's common shares will be affected by such volatility.

Dividends

The Company has not paid dividends in the past, and the Company does not anticipate paying any dividends in the foreseeable future. Dividends paid by the Company would be subject to tax and, potentially, withholdings.

Insurance Coverage

The Company will require insurance coverage for a number of risks. Although the management of the Company believes that the events and amounts of liability covered by its insurance policies will be reasonable, taking into account the risks relevant to its business, and the fact that agreements with users contain limitations of liability, there can be no assurance that such coverage will be available or sufficient to cover claims to which the Company may become subject. If insurance coverage is unavailable or insufficient to cover any such claims, the Company's financial resources, results of operations and prospects could be adversely affected.

Litigation

The Company may become party to litigation from time to time in the ordinary course of business which could adversely affect its business. Should any litigation in which the Company becomes involved be determined against the Company, such a decision could adversely affect the Company's ability to continue operating and the market price for the common shares and could use significant resources. Even if the Company is involved in litigation and wins, litigation can redirect significant resources.

Conflicts of Interest

Certain of the Company's directors and officers are, and may continue to be, involved in other business ventures through their direct and indirect participation in corporations, partnerships, joint ventures, etc. that may become potential competitors of the technologies, products and services the Company intends to provide. Situations may arise in connection with potential acquisitions or opportunities where the other interests of these directors and officers conflict with or diverge from the Company's interests. In accordance with applicable corporate law, directors who have a material interest in or who are a party to a material contract or a proposed material contract with the Company are required, subject to certain exceptions, to disclose that interest and generally abstain from voting on any resolution to approve the contract. In addition, the directors and officers are required to act honestly and in good faith with a view to the Company's best interests. However, in conflict of interest situations, the Company's directors and officers may owe the same duty to another company and will need to balance their competing interests with their duties to the Company. Circumstances (including with respect to future corporate opportunities) may arise that may be resolved in a manner that is unfavorable to the Company.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

The preparation of the consolidated financial statements in accordance with IFRS requires management to make certain estimates, judgments and assumptions that affect the reported amounts of assets and liabilities at the date of the consolidated financial statements and reported amounts of revenues and expenses during reporting periods. Actual results could differ materially from those estimates and would impact future results of operations and cash flows. For more information about the Company's accounting policies and estimates, please refer to note 2 of the restated audited annual consolidated financial statements of Metamaterial Technologies Inc. for the year ended December 31, 2019. The Company has identified certain accounting policies that it believes are most critical in understanding the judgments that are involved in producing the consolidated financial statements and the estimates made that could impact results of the operations, which are discussed below.

Non-repayable government assistance is recorded in the period earned as other income or netted against expenses. Interest-free repayable government loans are recorded initially at fair value, with the difference between book value and fair value recorded as government assistance.

Financial Instruments

Financial assets and financial liabilities are recognized when the Company becomes a party to the contractual provisions of a financial instrument. Financial assets and financial liabilities are initially measured at fair value. Financial assets are classified into one of the following specified categories: amortized cost, or fair value through

profit or loss ("FVTPL"). Transaction costs that are directly attributable to the acquisition or issue of financial assets and financial liabilities (other than financial assets and financial liabilities classified as FVTPL) are added to, or deducted from, the fair value of the financial assets or financial liabilities, as appropriate, on initial recognition. Transaction costs directly attributable to the acquisition of financial assets or financial liabilities classified as FVTPL are recognized immediately in the audited statement of loss and comprehensive loss.

The Company's financial instruments are classified and subsequently measured as follows:

Financial Instrument	IAS 39	IFRS 9
Grants receivable	Loans and receivables	Amortized cost
Other receivables	Loans and receivables	Amortized cost
Trade payables	Other financial liabilities	Amortized cost
Due to related parties	Other financial liabilities	Amortized cost
Unsecured convertible debentures	Other financial liabilities	FVTPL
Unsecured convertible promissory note	Other financial liabilities	FVTPL
Secured convertible debentures	Other financial liabilities	FVTPL
Promissory notes	Other financial liabilities	FVTPL
Derivative liability	Other financial liabilities	FVTPL
Long-term debt	Other financial liabilities	Amortized cost

Financial Assets

Subsequent to initial recognition, financial assets classified as loans and receivables are measured at amortized cost using the effective interest method.

Financial Liabilities

Financial liabilities are classified as and are measured at either amortized cost subsequent to initial measurement at fair value or, as noted in the above chart, at FVTPL.

New accounting standards and interpretations adopted

IAS 1 – Presentation of Financial Statements and IAS 8 – Accounting Policies, Changes in Estimates and Errors

Effective January 1, 2020, the Company adopted certain issued amendments to IAS 1 Presentation of Financial Statements and IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors. These amendments clarify the definition of 'material' and aligns the definition used within the IFRS Standards.

The application of this amendment did not have a material impact on the Company.

IFRS 3 – Business Combinations

Effective January 1, 2020, the Company adopted certain amendments to IFRS 3 Business Combinations to narrow the definition of a business and introduce a screening test, which eliminates the requirement for a detailed assessment of the definition, when met.

The application of this amendment did not have a material impact on the Company.

Critical accounting estimates

The preparation of consolidated financial statements in conformity with IFRS requires management to make judgments, estimates and assumptions about future events that affect the application of policies and the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenue and expenses during the reporting period. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected. Information about critical accounting judgments and estimates in applying accounting policies that have the most significant impact on the amounts recognized in the audited consolidated financial statements are outlined below.

Share-based payments and Warrants

The Company makes certain estimates and assumptions when calculating the estimated fair values of stock options granted and warrants issue. The significant assumptions used include estimates of expected life, expected volatility, expected dividend rate and expected risk-free rate of return. Changes in these assumptions may result in a material change to the expense recorded for grants of stock options and the issuance of warrants.

FVTPL liabilities

The convertible debentures and convertible promissory notes contain embedded derivatives. The Company has chosen to account for the entire instruments at fair value thought profit or loss rather than to separately account for the liability and derivative components. This requires determination of the most appropriate valuation model and determination of the most appropriate inputs to the valuation model including the probability of conversion, and discount rate to be used. Changes in these estimates and assumptions rate may result in a material change to the unrealized change in the liability.

Income Tax

The Company is subject to income tax in various jurisdictions. Significant judgement is required to determine the consolidated tax provision. The tax rates and tax laws used to compute income tax are those that are enacted or substantively enacted at the reporting date in the countries where the Company operates and generates taxable income.

Impairment of non-financial assets

Assessment of impairment triggers are based on management's judgement of whether there are sufficient internal and external factors that would indicate an asset or cash generating unit ["CGU'] is impaired, or any indicators of impairment reversal. The determination of the Company's CGUs is also based on management's judgement and is an assessment of the smallest group of assets that generate cash inflows independently of other assets.

The Company's estimate of the recoverable amount for the purpose of impairment testing requires management to make assumptions regarding future cash flows before taxes. Future cash flows are estimated based on budgets and a terminal value calculated by discounting the final year in perpetuity. The future cash flows are then discounted to their present value using an appropriate discount rate.

SUBSEQUENT EVENTS

See the "Overall Performance, Industry Trends and Economic Factors" section of this MD&A.

FURTHER INFORMATION

Additional information relating to Metamaterial Inc. is also available on the SEDAR website www.sedar.com and in the Press Release section of the Company's website www.metamaterial.com

The effective date of this Management's Discussion and Analysis is January 8, 2021.