

November 30, 2020

Fellow Shareholders,

It has always been our goal to uplift the Company. If the **Business Combination with Torchlight Energy Resources** closes in Q1:21, as we anticipate, a national exchange listing in the United States will provide META with significant value in better access to the capital markets. NASDAQ is the world's premier technology exchange, providing us with the best platform to expand awareness of META on the global stage and fully realize the value of our portfolio of innovative, sustainable products. This transaction will enhance our ability to pursue a broad range of opportunities and attract additional world-class talent. In the interim, we have increased our access to working capital with a convertible bridge loan for up to \$5.5MM and a \$390K loan from the Atlantic Canada Opportunities Agency which was [announced today](#).

Since the Q2 update, we have deepened our relationship with **Covestro Deutschland AG**, signing a three-year supply deal, which provides early access to new photo-sensitive holographic film materials, the building block of META's holographic product. This agreement not only allows unprecedented early access to Covestro's R&D library of photopolymer films but will 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.

In November, we launched direct sales of [metaOPTIX™ Holographic Film Notch Filters](#), the first in a series of planned new product families, via our **new online store**. Alongside our growing pipeline of custom development projects with world-class OEM partners and customers, we are introducing standard products to make our state-of-the-art technology accessible to more potential end users. Our two recent webinars, **Modern Holographic Optical Elements with Dr. Andrew Mark**, attracted over 90 registrants.

Our Mission: META develops technologies that **enable breakthrough performance** for a wide range of applications for our world class OEM partners via large scale production of nanostructured materials. Our approach is **software and AI-driven**, allowing us to design and develop new structured materials and functional prototypes much faster than traditional chemical synthesis. We supply key materials and components based on **three core technologies**: holography, lithography, and wireless sensing.

Application Examples:

- **Holography:** HOEs (holographic optical elements). Holography is a key enabling technology for AR (augmented reality) applications, such as smart glasses and AR automotive HUD system displays.
- **Lithography:** NanoWeb® is a transparent conductive film, incorporating an invisible, sub-micron metal mesh, produced by Rolling Mask Lithography (RML®), which can be used for de-icing/de-fogging of automotive glass, headlights, and sensors, as well as EMI shielding and 5G antennas.
- **Wireless Sensing:** META is developing **GlucoWise®**, a non-invasive, pain-free device for monitoring of blood glucose without the need to pierce the user's skin.

Intellectual Property: In 2020 to date, META has been granted **15 new patents**. Since the Q2 report, we were granted **two new patents in Japan**, related to MRI (magnetic resonance imaging) and glucose sensing. META has a total of **54 granted and 35 pending patent applications**, including 25 in the United States and 64 in 18 other countries around the world. META's portfolio comprises **28 patent families, 21 of which are granted**.



Route to Market: The breakthrough applications we are enabling require multi-year development cycles and long-term integration with the product plans of our customers. We help support our **27-person application development team**, which includes **13 Ph.D. scientists**, through a combination of development revenue from our corporate partners, along with government and other third-party funded programs. Our corporate partners, some of whom have also invested in META, include world-class companies, such as **Airbus, Lockheed Martin, and Samsung**. We have received **non-dilutive research funding** from the **Atlantic Canada Opportunities Agency** (a Canadian Government agency responsible for promoting economic growth in the Atlantic Provinces), **Sustainable Development Technology Canada (SDTC)**, an arm's length foundation to "demonstrate new technologies to promote sustainable development," and **Innovate UK** (part of UK Research and Innovation), a non-departmental public body funded by a grant-in-aid from the UK government. These arrangements are typically structured over periods of six months to five years, often in multiple phases, with revenue recognized upon delivery of associated milestones and deliverables.

Key Performance Indicators (KPIs): Since inception, META has been awarded **more than 25 funded R&D projects** with **22 corporate partners**. In 2020 YTD:

- **We have 19 active programs**, of which 9 are in holography and 10 in lithography.
- In all of 2019, we **delivered on 14 projects**, 1 in holography and 13 in lithography.
- Our pipeline of customer opportunities includes **29 in holography, 36 in lithography, and 1 in wireless sensing**. Of these, 11 proposals are currently under evaluation or negotiation.

Financial Results: META is an early growth stage, platform company, moving toward volume production of products and components for applications in multiple end markets. In Q3:2020, development revenue was approximately \$263K, compared to about \$216K in Q3:2019. For the first nine months of 2020, development revenue totaled approximately \$1,148K, vs. about \$664K in the first nine months of 2019, and \$1.2MM in full-year 2019. Over the next 12 months, we expect development programs to account for the majority of our revenue. We target continued growth in the number of corporate development programs as a precursor to future product sales. Please visit the Investors section of our website for our complete interim statements and MD&A.

Conclusion: META is creating **first-of-a-kind applications**. With greater access to capital after closing the Torchlight transaction, we should have even more growth opportunities. For example, we recently provided fully submersible prototypes to the U.S. military, integrating **NanoWeb® transparent conductive film** for **active defogging of the visors of dive masks and gas masks** used by military personnel. If we are able to finance increased production capacity and gain economies of scale, it should be natural to expand into civilian uses such as protective equipment for first responders, motorcycle helmet visors, alpine sport goggles and scuba diving headgear. **Metamaterials can bring practical benefits to everyday life.**

We very much appreciate your continued support.

Sincerely,



George Palikaras, Ph.D.,
President & CEO / Founder



About Metamaterial Inc.

META is changing the way we use, interact with, and benefit from light and other forms of energy. META designs and manufactures advanced materials and performance functional films which are engineered at the nanoscale to control light and electromagnetic waves. Metamaterials help support sustainability by doing more with less; they encompass lightweight, sustainable raw materials and processes which consume less energy. META is currently developing new materials with diverse applications in the automotive, aerospace, solar, consumer electronics and medical industries. META has a growing patent portfolio with three core technologies: holography, lithography, and wireless sensing. META is headquartered in Dartmouth, Nova Scotia and has offices in London, UK and Pleasanton, California.

Forward Looking Information

This shareholder letter includes forward-looking information within the meaning of Canadian securities laws regarding the Company and its business, which may include, but are not limited to, statements with respect to the business strategies and operational activities of the Company. Often but not always, forward-looking information can be identified by the use of words such as "expect", "intends", "anticipated", "believes" or variations (including negative variations) of such words and phrases, or state that certain actions, events or results "may", "could", "would" or "will" be taken, occur or be achieved. Such statements are based on the current expectations and views of future events of the management of the Company and are based on assumptions and subject to risks and uncertainties. Although the management of the Company believes that the assumptions underlying these statements are reasonable, they may prove to be incorrect. The forward-looking events and circumstances discussed in this letter may not occur and could differ materially as a result of known and unknown risk factors and uncertainties affecting the companies, including that the Company's ability to continue to develop and commercialize its products and technology, its ability to access government funding and grants to further its research and development activities, expansion into civilian uses for its protective equipment, the risk that the business combination with Torchlight Energy Resources remains subject to satisfactory completion of due diligence reviews by each party and negotiation and execution of definitive agreements, and risks regarding the Company's ability to close the Transaction, should the parties successfully negotiate definitive agreements, including the ability to secure required regulatory or other third party approvals, or the timing of any such closing, and the Company's ability to access capital after closing the transaction. Although the Company has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking statements, there may be other factors that cause actions, events or results to differ from those anticipated, estimated or intended. Accordingly, readers should not place undue reliance on any forward-looking statements or information. No forward-looking statement can be guaranteed. Except as required by applicable securities laws, forward-looking statements speak only as of the date on which they are made and the Company does not undertake any obligation to publicly update or revise any forward looking statement, whether as a result of new information, future events, or otherwise.

The CSE has neither approved nor disapproved the contents of this letter.

