

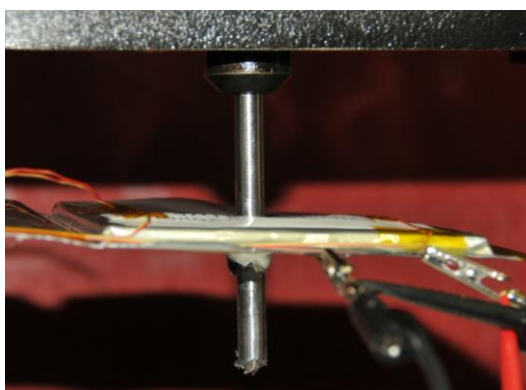
August 9, 2022

Dear Shareholders,

We continue to make progress on multiple fronts, adding new technologies to our platform, expanding the range of products we are developing, as well as the solutions we are creating, for large OEM's. **Two recent acquisitions open a \$5B+ TAM in battery materials**, where we offer increased safety and efficiency. We are attracting world-class talent, bringing decades of experience from much larger organizations, adding production capacity in Quebec and our new 68K sq. ft. HQ in Nova Scotia, and new development facilities in Greece and Maryland. Our IP portfolio is **3X larger than it was a year ago**, securing our competitive position and helping to forge new strategic alliances.

Financial Results: In Q2:22, revenue grew **432% Y/Y and 12% Q/Q, to about \$3.3MM, vs. \$0.6MM in Q2:21** and about \$3.0MM in Q1:22. The development contract with a confidential G10 central bank accounted for most of our revenue. We are developing the world's first nano-optic metamaterial security feature and the highest volume metamaterial application in history. Printing these nano-featured metamaterials in kilometer scale and at low cost has **never been done before by any company**. We are doubling production capacity to support our growth and targeting a multi-year production contract. META is pursuing multi-year, multi-million-dollar contracts with several OEMs across key market verticals. At 6/30/22, cash and cash equivalents totaled \$55.3MM, including \$0.5MM restricted cash. Please visit the [Investors](#) section of our website for our complete financial statements and MD&A.

Battery Materials: Electric Vehicles are the **fastest growing market** we address. Consumers demand **increased range** and **faster charging**. To achieve this, battery makers need improved material **performance, stability**, and in particular, **safety**. META is developing new battery materials, manufacturing techniques and proprietary tools to address these challenges and make transportation safer. Our patented NPORE[®] and PLASMAfusion[™] technologies are different from any other solutions on the market and will make rechargeable Li-on batteries safer for all applications, from automotive to consumer to medical as well as aerospace verticals. There are **two key components, separators, and current collectors**, used in every Li-ion battery regardless of chemistry:



NPORE[®] Survives Nail Penetration Test



Li-ion Anode made by PLASMAfusion[™]

NPORE[®] Nanoporous Ceramic Separators: The Li-ion battery separator market segment was about \$5B and used 5.5 billion square meters of material in 2021. Demand is expected to grow at a 30% CAGR, with each GWh of battery capacity requiring about 15 million square meters of separator. The separator is a porous membrane placed between the anode and cathode. It must be thin and light while maintaining thermal and mechanical stability. NPORE[®] is the world's first flexible, free-standing ceramic nanoporous separator for lithium-ion batteries with no plastic inner layer. Controlled pore size facilitates ion transport during charging/discharging. NPORE[®] has **less than 1% heat shrinkage**, even up to 200° Centigrade, so it does not fail during a thermal runaway that can lead to a fire. You can see the unique safety advantage in this [video](#). In addition to batteries, we see NANOPORE[®] membrane applications in ultrafiltration and medical metamaterial devices. We believe we can scale NPORE[®] production quickly with minimal capex by working with contract manufacturing partners which have already been identified.

Coated Copper Current Collectors: META's solution has been demonstrated on coated copper current collectors made with our PLASMAfusion™ technology, through a UK-funded project. **We showed an ~80% weight reduction**, improving safety by retarding thermal runaway, and improving sustainability by reducing copper content. The next phase is to develop roll-to-roll capabilities and we are leading a £ multi-million grant proposal to do this with a consortium of market-leading materials suppliers, tool makers, battery manufacturers and academics. We are utilizing the roll-to-roll coating equipment, skills, and knowledge of our experienced banknote materials team in our Quebec production facility and applying them to the production of these new battery materials. Our new current collectors **are suitable for fast charging (>2C)** which is a key factor in all future battery tech roadmaps.

Nano-Optic Security Products: We continue to develop our **KolourOptik®** technology toward launching Stripe and Thread versions. We are developing relationships with industry partners to test these, and to use LumaChrome™ color-shifting film and KolourOptik® for ID cards and upcoming brand protection products.



KolourOptik® Stripe incorporates 5 billion nano-features in full color, 3D motion, and vibrant imagery

NANOWEB® Expansion: At our Pleasanton, CA facility, the pilot-scale, 300mm web-width, roll-to-roll production line is now up and running and producing 5G reflector materials. We continue to optimize the line to improve cosmetic uniformity and to increase throughput. Our experienced design and production teams are developing in-house NANOWEB® origination and recombination to support the scale up to 600mm web width roll-to-roll production, which will be housed in our Quebec production facility. META's higher output and lower cost per square meter from the roll-to-roll process is expected to enable product for **several applications in development:**

- **Electric Vehicles:** EVs (electric vehicles) and ADAS (advanced driver assistance systems) need transparent heaters to keep windshields, headlights, and sensors clear in bad weather. Glass roof designs can use our transparent antennas for connectivity without sacrificing aesthetics or aerodynamics. We have **interest from multiple OEMs** for our unique capabilities, including **combining** transparent heating with EMI shielding.
- **EMI Shielding:** We have developed NANOWEB® microwave EMI shielding film for several interested OEMs. META's integrated, **fully transparent** film can be placed on the window of a microwave or high-end combination convection/microwave. This is **an industry first**. Our solution provides **perfect visibility** of cooking food and provides protection from harmful radiation in compliance with current industry standards.



Transparent Antennas, Deice/Defog, EMI for Sensors



Transparent Microwave Shielding

Augmented Reality: Meta’s ARfusion platform brings together the two critical elements of embedded smart technology within a light and prescription capable cast lens. We have created a platform that allows developers to integrate optics and associated smart technologies into thin lightweight prescription glasses. In May, we announced an [MOU with PPG](#) to develop new ophthalmic smart devices primarily for extended reality (XR) applications, enabling dynamic dimming functionality of NANOWEB® films with PPG electrochromic gels on the **ARfusion®** platform. In June, we [demonstrated the world’s most transparent antenna](#) in prescription lenses at AWE USA 2022.



ARfusion Finished Lens Blank

ARfusion® NANOWEB® Antenna in Lens

Key Executive Additions: We continue to hire outstanding people and we are pleased with the progress our team continues to make. In May, we announced [Dr. Raj V. Rajaram as Chief Marketing Officer](#). He brings more than 25 years of experience and numerous highly profitable successes as a senior global marketing and commercial operations executive within public and private companies across multiple industries. In July, we announced [Manos Spanos as META’s first Chief Business Officer](#). He brings 22 years of experience, including global businesses, Johnson & Johnson, PepsiCo, and Danone, as well as startup experience with L-Nutra, a high-growth biotech company.

Intellectual Property: META currently has **450 active utility and design patent documents**, of which **288 patents are issued**. In the U.S., we have 40 issued patents and 51 pending applications, and in 28 other countries globally, we have 248 issued patents and 111 pending applications. META’s portfolio comprises **103 patent families, of which 62 include at least one granted patent**. Since the Q2 2021 report, we have added 301 active patent documents and 57 new patent families. I am excited about our [first granted U.S. patent for glucoWISE®](#) announced in May.

Sustainability has always been at our core. We continually challenge ourselves to deliver breakthrough, next-generation solutions, which are more sustainable and do more with less, using less energy and materials. In June, we were honored to be selected by Corporate Knights Inc. for its inaugural [Future 50 Fastest-Growing Sustainable Companies in Canada](#) ranking.

We have a bold vision for a better future and through our continued innovation, excellence in execution and the strength of our people, we’re well positioned to create long-term value for our shareholders. **Our employees bring our purpose to life** – we thank them for their exemplary dedication and continued hard work.

Thank you to all our shareholders for your continued support.

Sincerely,

Handwritten signature of George Pafikaras

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

About Meta Materials Inc.

META delivers previously unachievable performance, across a range of applications, by inventing, designing, developing, and manufacturing sustainable, highly functional materials. Our extensive technology platform enables leading global brands to deliver breakthrough products to their customers in consumer electronics, 5G communications, health and wellness, aerospace, automotive, and clean energy. Our nano-optic technology provides anti-counterfeiting security features for government documents and currencies and authentication for brands. Our achievements have been widely recognized, including being named a Lux Research Innovator of the Year in 2021. Learn more at www.metamaterial.com.

Forward Looking Information

This letter includes forward-looking information or statements within the meaning of Canadian securities laws and within the meaning of Section 27A of the Securities Act of 1933, as amended, Section 21E of the Securities Exchange Act of 1934, as amended, and the Private Securities Litigation Reform Act of 1995, regarding the Company, which may include, but are not limited to, statements with respect to the business strategies, product development, expansion plans and operational activities of the Company. Often but not always, forward-looking information can be identified by the use of words such as “pursuing”, “potential”, “predicts”, “projects”, “seeks”, “plans”, “expect”, “intends”, “anticipated”, “believes” or variations (including negative variations) of such words and phrases, or statements that certain actions, events or results “may”, “could”, “should”, “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 release may not occur and could differ materially as a result of known and unknown risk factors and uncertainties affecting the Company, the capabilities of our facilities and the expansion thereof, research and development projects of the Company, the total available market and market potential of the products of the Company, the market position of the Company, the need to raise more capital and the ability to do so, the scalability of the Company’s production ability, capacity for new customer engagements, material selection programs timeframes, the ability to reduce production costs, enhance metamaterials manufacturing capabilities and extend market reach into new applications and industries, the ability to accelerate commercialization plans, the possibility of new customer contracts, the continued engagement of our employees, the technology industry, market strategic and operational activities, and management’s ability to manage and to operate the business. More details about these and other risks that may impact the Company’s businesses are described under the heading “Forward-Looking Information” and under the heading “Risk Factors” in the Company’s Form 10-K filed with the SEC on March 1, 2022, in the Company’s Form 10-Q filed with the SEC on August 9, 2022, and in subsequent filings made by Meta Materials with the SEC, which are available on SEC’s website at www.sec.gov. 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, except to the extent required by law.