

May 10, 2022

Fellow Shareholders,

At META®, we are focused on pioneering metamaterials production at scale, bringing breakthrough performance to a wide range of applications and markets, through sustainable products and processes that do more with less. In Q1 2022 and since quarter end, we continued delivering on our manufacturing scale up plan. We are scaling NANOWEB® production with our pilot-scale, 300mm, roll-to-roll line, preparing to double capacity for nano-optic security products, completing renovations at our new, 68K sq. ft. HQ in Dartmouth, NS, preparing new locations in Athens, Greece and Maryland, U.S.A., recruiting key executives to productively scale, broadening our technology platform by acquiring Plasma App, and continuously expanding our IP portfolio.

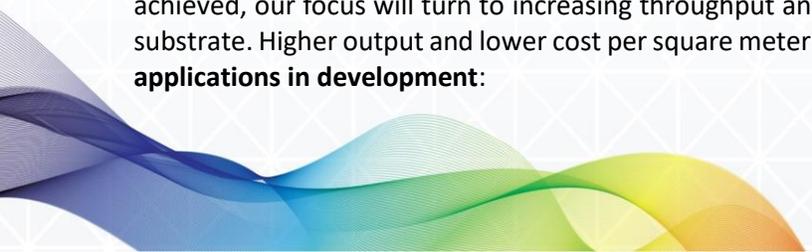
Financial Results: META is an early growth stage, platform company, moving toward volume production for multiple end markets. In Q1:22, revenue grew 399%, to about \$3.0MM, vs. \$0.6MM in Q1:21. Development programs, including the contract with a confidential G10 central bank, account for most of our revenue, but we expect a growing contribution from products over the next 12 months. META is pursuing multi-year, multi-million-dollar contracts with several OEMs. At 3/31/22, cash and cash equivalents totaled \$30.2MM, including \$0.5MM restricted cash. Please visit the [Investors](#) section of our website for our complete financial statements and MD&A.

Nano-Optic Security Products: In October 2021, just ahead of its merger with META, Nanotech Security Corp. announced that it had renewed its frame agreement to continue development of a unique security feature for its confidential G10 central bank customer. The frame agreement has a maximum value of \$41.5 million over a period up to five years. In April 2022, we announced **\$2.2 million in additional purchase orders** under the contract, increasing the value for fiscal year 2002 to approximately \$9.2 million. We have begun renovations to expand production space from the current, approximately 35K sq. ft. within the 105K sq. ft. building, to double the production capacity from about 7.5 million square meters to 15 million square meters per year.

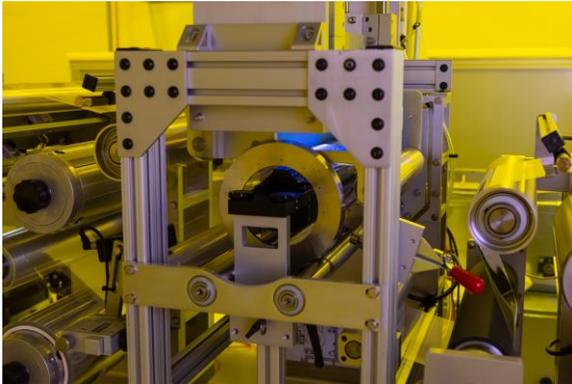


Our **KolourOptik®** technology has been [featured in the Annual Banknote Technology Report 8](#) alongside the latest anti-counterfeiting technologies and developments from the banknote industry. This technology combines sub-wavelength nanostructures and microstructures to create modern overt security features with unique and customizable visual effects. Pure, plasmonic color pixels are patterned on ultra-thin microstructures to create the thinnest security stripes and threads that are nearly impossible to replicate. META is committed to investing in innovation by bringing KolourOptik technology to market.

NANOWEB® Scale-Up: At our Pleasanton, CA facility, we are focused on optimizing the newly installed, pilot-scale, 300mm, roll-to-roll production line. The line uses the same process steps as our NANOWEB® wafer line (rolling-mask lithography, baking, development, metallization, and lift-off), and the **performance of the first sample made on roll-to-roll substrate matched within 1%** that of proven samples from the wafer line. Once golden samples are achieved, our focus will turn to increasing throughput and yields, and designing the next scale-up to 500mm-wide substrate. Higher output and lower cost per square meter from the roll-to-roll process is expected to **enable several applications in development:**



- **5G Reflectors and Antennas:** Sekisui Chemical has recently [published results of indoor propagation measurements](#) using transparent reflectors to improve non-line-of-sight coverage. Our solution uses no power, is more sustainable, and should be faster to deploy and less expensive than adding network hardware.
- **EMI Shielding:** We have recently completed the successful internal test of a microwave oven with an integrated, **fully transparent** window using NANOWEB® to prevent leakage of microwave radiation. This is **an industry first**. Our solution provides **perfect visibility** of cooking food, with **equal or superior shielding**.
- **Deicing and Defogging:** EVs (electric vehicles) and ADAS (advanced driver assistance systems) need transparent heaters to keep windshields, headlights, and sensors clear in bad weather. We have **interest from multiple OEMs** for our unique capabilities, including combined transparent heating and EMI shielding.



Pilot-Scale, 300mm RML® Tool



Transparent Microwave Shielding

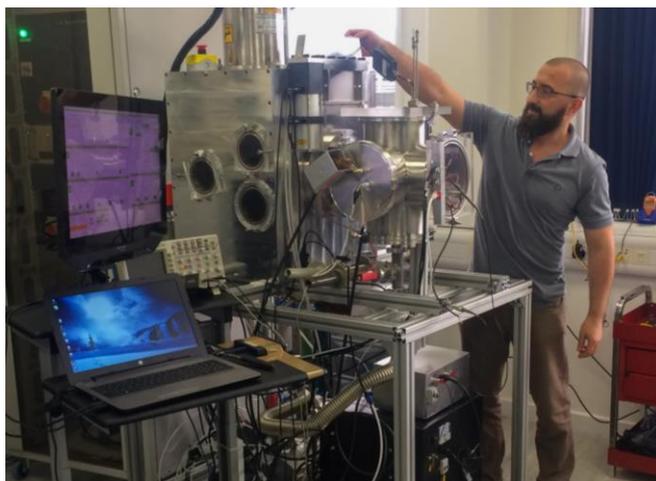
Disposition of Oil and Gas Assets: At the end of March, we [provided an update](#) on the sale or disposition of the oil and gas assets. Once completed, either the consideration received from a sale, or the continuing operation of these assets will be owned by the Company’s Series A preferred stockholders. We are currently planning to exchange the Series A preferred for shares of OilCo, Inc., a wholly owned subsidiary of the Company that holds all of the Oil and Gas assets and operations. To complete this exchange, an audit of the oil and gas operations was required. META engaged an auditor, and the audit is now complete. When the exchange is completed, holders of Series A preferred shares will exchange their preferred shares pro rata for the OilCo common shares. The necessary regulatory and legal work related to the asset consolidation and exchange is expected to be completed in the coming months.

Key Executive Additions: In April, we announced that [Dr. John “Yiannis” Antoniadis had joined META](#) as Executive Vice President, Head of Engineering and Electro-Optical & Infrared Systems. Dr. Antoniadis brings over 35 years of experience in the system, hardware, and software development of advanced technology systems for a wide variety of applications, and he has demonstrated leadership in the academic, government and private sectors. He will build and lead a team to drive product engineering and META’s growing portfolio of technologies to become more vertically integrated. We will also open a new office, strategically located in Maryland, home to leading health care organizations, top aerospace & defense companies, hundreds of research centers, and dozens of federal agencies.

In April, we also announced the appointment of [Mr. George Francis to the newly created position of Chief Information Officer](#). Mr. Francis brings over twenty-five years of experience across a diverse range of industries, including manufacturing, retail, distribution, services, and SaaS. Prior to META, he led a team of 120 IT personnel. Mr. Francis will lead the Company’s design and implementation of IT architecture, systems, and cyber security, ensuring that META’s information technology capabilities are state-of-the-art and more than adequate to meet all ongoing global regulatory and compliance requirements. He will also provide valuable insights into potential monetization of the data that META’s emerging products are likely to generate.

Augmented Reality: In January, [META joined the Laser Scanning for Augmented Reality \(LaSAR\) Alliance](#). In Halifax, we are running and refining two **ARfusion™ automated lens casting** lines for smart AR eyewear.

Acquisition of Plasma App: In April, we [acquired UK-based Plasma App Ltd.](#), the developer of [PLASMAfusion™](#), a first of its kind, **proprietary** manufacturing platform technology, which enables **high speed coating of any solid material on any substrate**. The team is located at the Rutherford Appleton Laboratories in Oxford, UK.



PLASMAfusion™ lab-scale tool



Copper on Nanoceramic Substrate

We expect to apply PLASMAfusion™ to the metallization step in our roll-to-roll production process for NANOWEB® films as well as KolourOptik® security films. This is expected to significantly accelerate line speed and increase annual capacity. Large scale and efficient metallization is a critical step for volume production of NANOWEB® and many other high volume potential applications such as [solid state batteries](#) and [battery materials](#), an estimated \$40B+ market in 2020, requiring hundreds of millions of square meters per year. Large scale metallization is expected to leverage capital equipment investment and substantially reduce cost per square meter of output.

PLASMAfusion™ uniquely combines the benefits of sputtering and evaporation, while using zero VOCs (volatile organic compounds). This technology works in a more sustainable, customizable, and efficient way, by producing new materials in vacuum at low substrate temperatures with higher adhesion. We intend to continue to industrialize and scale up PLASMAfusion™ including applications for our high-volume factory in Thurso, Quebec. Additionally, PLASMAfusion™ will be available for licensing and co-development for strategic partners.

Intellectual Property: META currently has **302 active utility and design patent documents**, of which **175 patents have issued**. In the U.S., we have 38 issued patents and 30 pending applications, and in 24 other countries around the world, we have 137 issued patents and 97 pending applications. META’s portfolio comprises **81 patent families, of which 48 include at least one granted patent**. Since the FY 2021 report, we have added 33 active patent documents and 7 new patent families, including 9 issued patents and one patent family from Plasma App.

At META, we are inspired by nature to design and develop nanoscale intelligent materials to improve everyday life. As we scale up to reproduce these tiny structures in high volume and at low cost, bringing intelligence to surfaces all around us, I believe the world is beginning to see our potential.

We very much appreciate your continued support.

Sincerely,



George Palikaras, 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 market potential of the products of the Company, the market position of the Company, 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 May 10, 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.