UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 10-Q

(Mark One)

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended September 30, 2022

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from __________ to

Commission File Number: 001-36247

Meta Materials Inc.
(Exact Name of Registrant as Specified in its Charter)

Nevada	**74-3237581**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
1 Research Drive Dartmouth, Nova Scotia	**B2Y 4M9**
(Address of principal executive offices)	**(Zip Code)**

Registrant's telephone number, including area code: (902) 482-5729

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.001 per share	**MMAT**	**Nasdaq Capital Market**

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☒	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☒
		Emerging growth company	☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

As of November 9, 2022, the registrant had 361,930,468 shares of common stock, $0.001 par value per share, outstanding.

TABLE OF CONTENTS

FORWARD-LOOKING STATEMENTS	**3**
SUMMARY OF RISK FACTORS	4
PART I—FINANCIAL INFORMATION	6
Item 1. Financial Statements	6
Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations	27
Item 4. Controls and Procedures	34
PART II—OTHER INFORMATION	36
Item 1. Legal Proceedings	36
Item 1A. Risk Factors	36
Item 2. Unregistered Sales of Equity Securities and Use of Proceeds	62
Item 3. Defaults Upon Senior Securities	62
Item 4. Mine Safety Disclosures	62
Item 5. Other Information	62
Item 6. Exhibits	63
SIGNATURES	64

FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q contains forward-looking statements within the meaning of the federal securities laws, which statements involve substantial risks and uncertainties. Forward-looking statements generally relate to future events or our future financial or operating performance. In some cases, you can identify forward-looking statements because they contain words such as "may," "will," "should," "expect," "plan," "anticipate," "could," "intend," "target," "project," "contemplate," "believe," "estimate," "predict," "potential" or "continue" or the negative of these words or other similar terms or expressions that concern our expectations, strategy, plans or intentions. Forward-looking statements contained in this Quarterly Report on Form 10-Q include statements about:

- our business strategy;
- our strategy for protecting our intellectual property;
- our ability to obtain necessary funding on favorable terms or at all;
- our customers;
- our plan and ability to secure revenues;
- the risk of competitors entering the market;
- our ability to hire and retain skilled staff;
- our ability to obtain financing to fund future expenditures and capital requirements;
- our plans with respect to new facilities and the scaling of our manufacturing capabilities; and
- the impact of adoption of new accounting standards.

We caution you that the foregoing list may not contain all of the forward-looking statements made in this Quarterly Report on Form 10-Q.

You should not rely upon forward-looking statements as predictions of future events. We have based the forward-looking statements contained in this Quarterly Report on Form 10-Q primarily on our current expectations and projections about future events and trends that we believe may affect our business, financial condition, results of operations and prospects. The outcome of the events described in these forward-looking statements is subject to risks, uncertainties and other factors, including those described in Part II, Item 1A "(Risk Factors)" and elsewhere in this Quarterly Report on Form 10-Q. Moreover, we operate in a very competitive and rapidly changing environment. New risks and uncertainties emerge from time to time and it is not possible for us to predict all risks and uncertainties that could have an impact on the forward-looking statements contained in this Quarterly Report on Form 10-Q. We cannot assure you that the results, events and circumstances reflected in the forward-looking statements will be achieved or occur, and actual results, events or circumstances could differ materially from those described in the forward-looking statements.

The forward-looking statements made in this Quarterly Report on Form 10-Q relate only to events as of the date on which the statements are made. We undertake no obligation to update any forward-looking statements made in this Quarterly Report on Form 10-Q to reflect events or circumstances after the date of this Quarterly Report on Form 10-Q or to reflect new information or the occurrence of unanticipated events, except as required by law. We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements and you should not place undue reliance on our forward-looking statements. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments we may make.

In addition, statements that "we believe" and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this Quarterly Report on Form 10-Q, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and investors are cautioned not to unduly rely upon these statements.

SUMMARY OF RISK FACTORS

Below is a summary of the principal factors that could materially harm our business, operating results and/or financial condition, impair our future prospects or cause the price of our common stock to decline. This summary does not address all of the risks that we face. Additional discussion of the risks summarized in this risk factor summary, and other risks that we face, can be found below under the heading "Risk Factors" and should be carefully considered, together with other information in this Quarterly Report on Form 10-Q and our other filings with the Securities and Exchange Commission ("SEC") before making an investment decision regarding our common stock.

- We have a limited operating history, which can make it difficult for investors to evaluate our operations and prospects and may increase the risks associated with investing in us..
- We have a history of net losses, and we expect to continue to incur losses for the foreseeable future. If we ever achieve profitability, we may not be able to sustain it.
- We will need additional financing to execute our business plan and fund operations, which additional financing may not be available on reasonable terms or at all.
- Our ability to obtain financing, if and when necessary, may be impaired by such factors as the capital markets and our limited operating history.
- We may be unable to develop new products, applications, and end markets for our products.
- Our research and marketing development activities and investments may not result in profitable, commercially viable or successfully produced and marketed products.
- Disruption in supply from our single source supplier of our holographic raw materials may cause a material adverse effect on our Holography-related products.
- Material weaknesses or significant deficiencies in our internal controls could materially and adversely affect our business, results of operations and financial condition.
- Impairment of our goodwill or other intangible assets could materially and adversely affect our business, operating results, and financial condition.
- We depend on our OEM customers and system integrators to incorporate our products into their systems.
- Our revenues may be concentrated in a few customers, and if we lose any of these customers, or these customers do not pay us, our revenues could be materially adversely affected.
- Our agreements with various national governments and suppliers to such governments subject us to unique risks.
- We are subject to governmental export and import controls that could subject us to liability or impair our ability to compete in international markets.
- We may experience delays in providing sufficient product for future testing of our products due to ongoing supply chain limitations.
- Change in laws, regulations or guidelines relating to our business plan and activities could adversely affect our business.
- If we are unable to make acquisitions, or successfully integrate them into our business, our results of operations and financial condition could be adversely affected.
- The regulatory approval process for our medical products in the United States and other countries around the world is time-consuming and complicated, and we may not obtain the approval required to market a product within the timeline required, or at all. Additionally, we may lose regulatory approval and/or our products may become subject to new and anticipated foreign regulations.
- Development of medical devices and related operations are subject to extensive government regulation and oversight both in the United States and abroad, and our failure to comply with applicable requirements could harm our business
- Healthcare policy changes, including recently enacted legislation reforming the U.S. healthcare system, could harm our business, financial condition, and results of operations
- If coverage and reimbursement from third-party payors for procedures using our medical products significantly decline, physicians, hospitals, and other healthcare providers may be reluctant to use our products and our sales may decline

- If we or our contractors fail to comply with healthcare and other governmental regulations, we could face substantial fines and penalties and our business, results of operations and financial condition could be adversely affected
- If we fail to obtain and maintain necessary regulatory clearances, approvals, or certifications for our products, or if clearances, approvals or certifications for future products and indications are delayed or not issued, our commercial operations would be harmed
- We are exposed to risks that our employees, consultants, or other commercial partners may engage in misconduct or other improper activities, including non-compliance with regulatory standards and requirements.
- Compliance with environmental laws and regulations could be expensive, and failure to comply with these laws and regulations could subject us to significant liability.
- Our insurance coverage strategy may not be adequate to protect us from all business risks.
- The risk of loss of our intellectual property, trade secrets or other sensitive business or customer confidential information or disruption of operations due to cyberattacks or data breaches could negatively impact our financial results.
- Cybersecurity breaches and information technology failures could harm our business by increasing our costs and negatively impacting our business operations.
- Changes in laws or regulations relating to privacy, information security and data protection, or any actual or perceived failure by us to comply with such laws and regulations or any other obligations, could adversely affect our business.
- The effects of health pandemics, such as the ongoing COVID-19 pandemic, have had, and could in the future have, an adverse impact on our business, financial condition and results of operations.
- We are subject to taxation-related risks in multiple jurisdictions, and the adoption and interpretation of new tax legislation, tax regulations, tax rulings, or exposure to additional tax liabilities could materially affect our business, financial condition and results of operations.
- Our ability to use our deferred tax assets to offset future taxable income is subject to certain limitations, which may have a material impact on our business, financial condition or results of operations.

PART I—FINANCIAL INFORMATION

Item 1. Financial Statements

META MATERIALS INC.

CONDENSED CONSOLIDATED INTERIM BALANCE SHEETS (UNAUDITED)

	As of September 30, 2022	As of December 31, 2021
Assets		
Current assets:		
Cash and cash equivalents	$ 30,608,797	$ 46,645,704
Restricted cash	436,123	788,768
Short-term investments	1,178,685	2,875,638
Grants receivable	26,062	175,780
Accounts receivable	1,977,676	1,665,700
Inventory	274,090	265,718
Prepaid expenses and other current assets	6,466,469	3,451,367
Assets held for sale	71,700,000	75,500,000
Due from related parties	8,552	10,657
Total current assets	112,676,454	131,379,332
Intangible assets, net	51,025,428	28,971,824
Property, plant and equipment, net	34,534,045	27,018,114
Operating lease right-of-use assets	5,366,070	6,278,547
Goodwill	279,052,357	240,376,634
Total assets	$ 482,654,354	$ 434,024,451
Liabilities and stockholders' equity		
Current liabilities		
Trade and other payables	$ 12,818,253	$ 13,335,470
Current portion of long-term debt	742,782	491,278
Current portion of deferred revenues	623,895	779,732
Current portion of deferred government assistance	783,055	846,612
Preferred stock liability	71,700,000	75,500,000
Current portion of operating lease liabilities	864,519	663,861
Asset retirement obligations	21,937	21,937
Total current liabilities	87,554,441	91,638,890
Deferred revenues	503,690	637,008
Deferred government assistance	—	3,038
Deferred tax liability	161,662	324,479
Long-term operating lease liabilities	3,177,910	3,706,774
Funding obligation	292,749	268,976
Long-term debt	2,137,948	2,737,171
Total liabilities	$ 93,828,400	$ 99,316,336
Stockholders' equity		
Common stock - $0.001 par value; 1,000,000,000 shares authorized, 361,377,856 shares issued and outstanding at September 30, 2022, and $0.001 par value; unlimited shares authorized, 284,573,316 shares issued and outstanding at December 31, 2021	339,555	262,751
Additional paid-in capital	587,635,212	463,136,404
Accumulated other comprehensive loss	(6,862,090)	(296,936)
Accumulated deficit	(192,286,723)	(128,394,104)
Total stockholders' equity	388,825,954	334,708,115
Total liabilities and stockholders' equity	$ 482,654,354	$ 434,024,451

Commitments and contingencies (note 20)

Subsequent events (note 21)

The accompanying notes are an integral part of these condensed consolidated interim financial statements

META MATERIALS INC.

CONDENSED CONSOLIDATED INTERIM STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS (UNAUDITED)

	Three months ended September 30,		Nine months ended September 30,	
	2022	2021	2022	2021
Revenue:				
Product sales	$ 432,059	$ 297,431	$ 934,299	$ 321,431
Development revenue	2,023,953	275,181	7,820,135	1,471,804
Total Revenue	2,456,012	572,612	8,754,434	1,793,235
Cost of goods sold	696,730	145,103	2,353,393	146,209
Gross Profit	1,759,282	427,509	6,401,041	1,647,026
Operating Expenses:				
Selling & Marketing	1,027,886	427,004	3,190,951	1,122,469
General & Administrative	16,674,309	9,776,850	45,743,892	16,217,012
Research & Development	6,233,685	1,816,547	16,693,833	5,229,456
Total operating expenses	23,935,880	12,020,401	65,628,676	22,568,937
Loss from operations	(22,176,598)	(11,592,892)	(59,227,635)	(20,921,911)
Interest expense, net	(134,205)	(215,116)	(440,694)	(1,093,833)
Loss on foreign exchange, net	(2,223,633)	(440,157)	(3,046,955)	(770,542)
Loss on financial instruments, net	—	—	—	(40,540,091)
Other (loss) income, net	21,908	739,260	(1,324,528)	1,673,124
Total other (expense) income, net	(2,335,930)	83,987	(4,812,177)	(40,731,342)
Loss before income taxes	(24,512,528)	(11,508,905)	(64,039,812)	(61,653,253)
Income tax recovery	37,208	83,657	147,193	186,183
Net loss	$ (24,475,320)	$ (11,425,248)	$ (63,892,619)	$ (61,467,070)
Other Comprehensive Income net of tax				
Foreign currency translation loss	(4,413,860)	(125,976)	(6,565,154)	(17,328)
Fair value gain on changes of own credit risk	—	—	—	680,178
Total Other Comprehensive (Loss) Income	(4,413,860)	(125,976)	(6,565,154)	662,850
Comprehensive loss	$ (28,889,180)	$ (11,551,224)	$ (70,457,773)	$ (60,804,220)
Basic and diluted loss per share [(1)]	$ (0.07)	$ (0.04)	$ (0.20)	$ (0.28)
Weighted average number of shares outstanding - basic and diluted [(1)]	362,260,641	280,080,786	316,661,487	216,135,190

(1) Retroactively restated for the nine months ended September 30, 2021 for the Torchlight RTO ("Reverse Acquisition") as described in Note 3

The accompanying notes are an integral part of these condensed consolidated interim financial statements

META MATERIALS INC.

CONDENSED CONSOLIDATED INTERIM STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (UNAUDITED) [(1)]

	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
	Shares [(1)]	Amount				
Balance, July 1, 2022	360,810,016	$ 338,987	$ 585,045,778	$ (2,448,230)	$ (167,811,403)	$ 415,125,132
Net loss	—	—	—	—	(24,475,320)	(24,475,320)
Other comprehensive loss	—	—	—	(4,413,860)	—	(4,413,860)
Exercise of stock options	120,269	120	32,352	—	—	32,472
Settlement of restricted stock units	224,519	225	(225)	—	—	—
Stock-based compensation	223,052	223	2,557,307	—	—	2,557,530
Balance, September 30, 2022	361,377,856	339,555	587,635,212	(6,862,090)	(192,286,723)	388,825,954
Balance, July 1, 2021	279,782,854	$ 257,966	$ 454,961,102	$ 133,946	$ (87,438,665)	$ 367,914,349
Net loss	—	—	—	—	(11,425,248)	(11,425,248)
Other comprehensive loss	—	—	—	(125,976)	—	(125,976)
Exercise of stock options	1,226,375	1,226	335,271	—	—	336,497
Exercise of warrants	48,308	43	(43)	—	—	—
Stock-based compensation	148,368	149	3,833,336	—	—	3,833,485
Balance, September 30, 2021	281,205,905	$ 259,384	$ 459,129,666	$ 7,970	$ (98,863,913)	$ 360,533,107

	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive (Loss) Income	Accumulated Deficit	Total Stockholders' Equity
	Shares [(1)]	Amount				
Balance, January 1, 2022	284,573,316	$ 262,751	$ 463,136,404	$ (296,936)	$ (128,394,104)	$ 334,708,115
Net loss	—	—	—	—	(63,892,619)	(63,892,619)
Other comprehensive loss	—	—	—	(6,565,154)	—	(6,565,154)
Issuance of common stock and warrants	37,037,039	37,037	49,962,963	—	—	50,000,000
Stock issuance costs	—	—	(3,680,666)	—	—	(3,680,666)
Exercise of stock options	1,252,546	1,252	336,541	—	—	337,793
Settlement of restricted stock units	224,519	225	(225)	—	—	—
Exercise of warrants	1,623,700	1,624	167,950	—	—	169,574
Issuance of stock in connection with acquisitions	36,443,684	36,443	67,086,069	—	—	67,122,512
Stock-based compensation	223,052	223	10,626,176	—	—	10,626,399
Balance, September 30, 2022	361,377,856	$ 339,555	$ 587,635,212	$ (6,862,090)	$ (192,286,723)	$ 388,825,954
Balance, January 1, 2021	154,163,975	$ 132,347	$ 29,021,974	$ (654,880)	$ (37,396,843)	$ (8,897,402)
Net loss	—	—	—	—	(61,467,070)	(61,467,070)
Other comprehensive income	—	—	—	662,850	—	662,850
Conversion of promissory notes	20,391,239	20,391	23,635,974	—	—	23,656,365
Conversion of secured debentures	14,155,831	14,156	22,104,626	—	—	22,118,782
Conversion of unsecured debentures	5,105,338	5,105	5,764,370	—	—	5,769,475
Conversion of long-term debt	124,716	125	221,718	—	—	221,843
Conversion of payable to related party	150,522	151	225,835	—	—	225,986
Exercise of stock options	1,640,294	1,640	448,012	—	—	449,652
Exercise of warrants	287,114	282	93,712	—	—	93,994
Exercise of broker warrants	61,331	61	16,194	—	—	16,255
Effect of reverse acquisition	82,813,994	82,814	369,548,188	—	—	369,631,002
Shares issued in lieu of operating lease liability	1,832,989	1,833	2,780,135	—	—	2,781,968
Stock-based compensation	478,562	479	5,268,928	—	—	5,269,407
Balance, September 30, 2021	281,205,905	$ 259,384	$ 459,129,666	$ 7,970	$ (98,863,913)	$ 360,533,107

(1) Retroactively restated from the earliest period presented for the Torchlight RTO ("Reverse acquisition") as described in Note 3

The accompanying notes are an integral part of these condensed consolidated interim financial statements

META MATERIALS INC.

CONDENSED CONSOLIDATED INTERIM STATEMENTS OF CASH FLOWS (UNAUDITED)

	Nine months ended	
	September 30, 2022 $	September 30, 2021 $
Cash flows from operating activities:		
Net loss	$ (63,892,619)	$ (61,467,070)
Adjustments to reconcile net loss to net cash used in operating activities:		
Non-cash finance income	(12,433)	—
Non-cash interest expense	419,684	904,749
Non-cash lease expense	1,212,415	256,785
Deferred income tax	(147,193)	(186,183)
Depreciation and amortization	5,377,470	1,798,607
Unrealized foreign currency exchange loss	2,843,223	279,805
Loss on financial instruments, net	—	40,540,091
Change in deferred revenue	(199,785)	(239,057)
Non-cash government assistance	(3,047)	(508,730)
Loss on debt settlement	—	19,253
Gain on sale of property, plant and equipment	(783)	—
Stock-based compensation	9,763,627	855,989
Non-cash consulting expense	862,771	3,926,628
Changes in operating assets and liabilities	(4,739,841)	(1,764,867)
Net cash used in operating activities	(48,516,511)	(15,584,000)
Cash flows from investing activities:		
Purchases of intangible assets	—	(838,664)
Purchases of property, plant and equipment	(11,975,134)	(5,552,268)
Proceeds from sale of property, plant and equipment	39,140	—
Proceeds from short-term investments	1,620,281	—
Acquisition of business, net of cash acquired	(3,486,906)	—
Proceeds from reverse takeover	—	146,954,733
Net cash (used in) provided by investing activities	(13,802,619)	140,563,801
Cash flows from financing activities:		
Proceeds from the issuance of common stock and warrants	50,000,000	—
Costs paid on the issuance of common stock and warrants	(3,680,666)	—
Proceeds from long-term debt	—	1,127,151
Repayments of long-term debt	(467,767)	(938,496)
Proceeds from government grants	—	223,384
Proceeds from unsecured promissory notes	—	13,963,386
Proceeds from stock option exercises	337,793	374,652
Proceeds from warrants exercises	169,574	93,993
Proceeds from broker warrants exercises	—	16,255
Net cash provided by financing activities	46,358,934	14,860,325
Net (decrease) increase in cash, cash equivalents and restricted cash	(15,960,196)	139,840,126
Cash, cash equivalents and restricted cash at beginning of the period	47,434,472	1,395,683
Effects of exchange rate changes on cash, cash equivalents and restricted cash	(429,356)	(17,940)
Cash, cash equivalents and restricted cash at end of the period	$ 31,044,920	$ 141,217,869
Supplemental cash flow information		
Accrued purchases of property, equipment and patents	$ 536,778	$ 799,305
Right-of-use assets obtained in exchange for lease liabilities	142,378	892,003
Right-of-use assets and prepaid expenses recognized in exchange for common stock	—	2,149,381
Settlement of liabilities in common stock	—	52,063,432
Interest paid on debt	—	64,528

The accompanying notes are an integral part of these condensed consolidated interim financial statements

1. Corporate information

Meta Materials Inc. (also referred to herein as the “Company”, “META”, “we”, “us”, “our”, or “Resulting Issuer”) is a smart materials and photonics company specializing in metamaterial research and products, nanofabrication, and computational electromagnetics. Our registered office is located at 85 Swanson Road, Boxborough, Massachusetts 01719 and our principal executive office is located at 1 Research Drive, Halifax, Nova Scotia, Canada.

On December 14, 2020, we (formerly known as “Torchlight Energy Resources, Inc.” or “Torchlight”) and our subsidiaries, Metamaterial Exchangeco Inc. (formerly named 2798832 Ontario Inc., “Canco”) and 2798831 Ontario Inc. (“Callco”), entered into an Arrangement Agreement (the “Arrangement Agreement”) with Metamaterial Inc., an Ontario corporation headquartered in Nova Scotia, Canada (“MMI”), to acquire all of the outstanding common stock of MMI by way of a statutory plan of arrangement (the “Arrangement”) under the Business Corporations Act (Ontario), on and subject to the terms and conditions of the Arrangement Agreement (the “Torchlight RTO”). On June 25, 2021, we implemented a reverse stock split. On June 28, 2021, following the satisfaction of the closing conditions set forth in the Arrangement Agreement, the Arrangement was completed, and we changed our name from “Torchlight Energy Resources, Inc.” to “Meta Materials Inc.” and changed our trading symbol from “TRCH” to “MMAT”.

On June 28, 2021, and pursuant to the completion of the Arrangement Agreement, we began trading on the Nasdaq Capital Market under the symbol “MMAT” while MMI common stock was delisted from the Canadian Securities Exchange (“CSE”) and at the same time, Metamaterial Exchangeco Inc., a wholly-owned subsidiary of META, started trading under the symbol “MMAX” on the CSE. Certain previous shareholders of MMI elected to convert their common stock of MMI into exchangeable shares in Metamaterial Exchangeco Inc. These exchangeable shares, which can be converted into common stock of META at the option of the holder, are similar in substance to common shares of META and have been included in the determination of outstanding common shares of META.

For accounting purposes, the legal subsidiary, MMI, has been treated as the accounting acquirer and the Company, the legal parent, has been treated as the accounting acquiree. The transaction has been accounted for as a reverse acquisition in accordance with ASC 805 *Business Combinations*. Accordingly, these condensed consolidated interim financial statements are a continuation of MMI consolidated financial statements prior to June 28, 2021 and exclude the balance sheets, statements of operations and comprehensive loss, statement of changes in stockholders’ equity and statements of cash flows of Torchlight prior to June 28, 2021. See note 3 for additional information.

2. Significant accounting policies

Basis of presentation— These unaudited condensed consolidated interim financial statements and related notes are presented in accordance with accounting principles generally accepted in the United States of America (“US GAAP”). Our fiscal year-end is December 31. The condensed consolidated interim financial statements include the accounts of Meta Materials Inc. and its wholly-owned subsidiaries. All significant intercompany balances and transactions have been eliminated on consolidation.

These unaudited condensed consolidated interim financial statements do not include all of the information and notes required by US GAAP for annual financial statements. Accordingly, these unaudited condensed consolidated interim financial statements should be read in conjunction with our audited consolidated financial statements and notes for the years ended December 31, 2021, 2020 and 2019, filed with the Securities and Exchange Commission (“SEC”) on Forms 10-K and 10-K/A, respectively.

Recently Adopted Accounting Pronouncements: We currently have no material recently adopted accounting pronouncements.

Recently Issued Accounting Pronouncements: We currently have no material recent accounting pronouncements yet to be adopted.

3. Acquisitions and preferred stock liability

Torchlight RTO

On June 28, 2021, we and our subsidiaries, Canco and Callco, completed an arrangement agreement where we acquired all of the outstanding common stock of MMI and the former shareholders of MMI acquired approximately 70% of our Common Stock. Accordingly, the former shareholders of MMI, as a group, retained control of the Company, and while the Company was the legal acquirer of MMI, MMI was deemed to be the acquirer for accounting purposes. Pursuant to ASC 805 *Business Combinations*, the transaction was accounted for as a reverse acquisition. Consideration transferred was measured to be $358 million and the difference between the consideration transferred and fair value of net assets resulted in the recognition of goodwill of $213 million.

We have finalized the purchase price allocation to the individual assets acquired and liabilities assumed using the acquisition method. There were no further changes to the purchase price allocation, as disclosed in the audited consolidated financial statements and notes for the years ended December 31, 2021 and 2020.

Nanotech acquisition

On October 5, 2021, our wholly-owned subsidiary, 1315115 BC Ltd., purchased 100% of the common stock of Nanotech Security Corp. ("Nanotech") at CA$1.25 per share. In addition, the transaction price included the settlement of certain Nanotech share awards outstanding immediately prior to the closing of the agreement. The consideration paid to the shareholders under the agreement resulted in a total purchase price of $72.1 million and the difference between the consideration paid and fair value of net assets resulted in the recognition of goodwill of $27.1 million.

We believe that information gathered to date provides a reasonable basis for estimating the fair value of assets acquired and liabilities assumed, however we are waiting for additional information necessary to finalize these fair values including assessment of any tax assets and liabilities and tax position in different jurisdictions. Therefore, the provisional measurements of fair value are subject to change. We expect to complete the purchase price allocations as soon as practicable but no later than one year from the acquisition date.

Plasma App Ltd acquisition

On April 1, 2022, we completed the purchase of 100% of the issued and outstanding shares of Plasma App Ltd. ("PAL"). PAL is the developer of PLASMAfusion™, a proprietary manufacturing platform technology, which enables high speed coating of any solid material on any type of substrate. PAL's team is located at the Rutherford Appleton Laboratories in Oxford, UK.

At closing, we issued to PAL's shareholders an aggregate of 9,677,419 shares of our common stock, representing a number of shares of common stock equal to $18,000,000 divided by $1.9 (the volume weighted average price for the ten trading days ending on March 31, 2022) with an additional deferral of common stock equal to $2,000,000 divided by $1.9 to be issued subject to satisfaction of certain claims and warranties.

The acquisition was accounted for as a business combination in accordance with ASC 805 "Business Combinations". Under ASC 805, the consideration transferred is allocated based upon the fair value of the identifiable assets acquired and liabilities assumed on the acquisition date. We are in the process of completing the determination of the fair values of the assets acquired and liabilities assumed, including reviewing third-party valuations, the allocation of the intangibles and goodwill and tax effects related to the acquisition. Therefore, the provisional measurements of fair value are subject to change. We expect to complete the purchase price allocation as soon as practicable but no later than one year from the acquisition date. During the three months ended September 30, 2022, there were no changes to provisional amounts previously determined.

Deferred Consideration

We are obligated to issue to PAL shareholders an aggregate of 1,075,268 shares of our common stock on October 1, 2023, subject to reductions arising from general and specific claims and warranties that might arise of more than $20,000 and less than or equal to $2,000,000. The number of shares were calculated as $2,000,000 divided by $1.9 (the volume weighted average price for the ten trading days ending on March 31, 2022). We have classified the deferred consideration in the statement of changes in stockholders' equity since the number of shares to be issued is contractually specified in the agreement and is not contingent on a future event or condition being met.

The preliminary allocation of consideration paid for the PAL acquisition is summarized as follows:

		Amount (USD)
Fair value of common stock issued (1)	$	15,290,320
Fair value of deferred consideration (2)	$	1,698,925
	$	16,989,245
Net assets of Plasma App Ltd.:		
Cash and cash equivalents	$	13,822
Other assets		36,103
Intangibles		6,775,728
Goodwill		10,163,592
	$	16,989,245

(1) The fair value of the common stock issued or to be issued was determined by multiplying 9,677,419 shares, calculated as per the purchase agreement, by the closing share price on April 1, 2022 of $1.6. We recognized $9,677 in common stock and $15,280,645 in additional paid in capital in the interim condensed consolidated statements of changes in stockholders' equity.

(2) The estimated fair value of the deferred consideration on acquisition date was determined by multiplying 1,075,268 shares, calculated as per the purchase agreement, by the closing share price on April 1, 2022 of $1.6. We recognized the full amount in additional paid in capital in the interim condensed consolidated statements of changes in stockholders' equity.

Losses from the PAL acquisition since the acquisition date included in the condensed consolidated interim statements of operations and comprehensive loss for the three months and nine months ended September 30, 2022 were $0.3 million and $0.4 million, respectively.

Transaction costs associated with the PAL Acquisition of $0.4 million were recognized in the condensed consolidated interim statements of operations and comprehensive loss for the three months ended September 30, 2022.

Had the business combination occurred on January 1, 2021, the impact for the three months ended September 30, 2022 would have been an increase to revenue by $Nil and a decrease in loss by $Nil (2021 – increase to revenue by $118,122 and a decrease to loss by $44,953).

Had the business combination occurred on January 1, 2021, the impact for the nine months ended September 30, 2022 would have been an increase to revenue by $Nil and a decrease in loss by $259,641 (2021 – increase to revenue by $183,795 and a decrease to loss by $32,091).

Optodot acquisition

On June 22, 2022, we completed an asset purchase agreement with Optodot Corporation ("Optodot"), a developer of advanced materials technologies, to acquire certain assets related to patents and intellectual property for the battery and other industries. Consideration transferred consisted of the following:

1. Cash payment of $3,500,000.
2. Unrestricted common stock equal to $37,500,000 divided by the daily volume weighted average trading price per share of our common stock on the Nasdaq Capital Market for the consecutive period of twenty trading days ending on June 21, 2022.
3. Restricted common stock equal to $7,500,000 divided by the daily volume weighted average trading price per share of our Common Stock on the Nasdaq Capital Market for the consecutive period of twenty trading days ending on June 21, 2022. The restricted stock is subject to certain vesting milestones as set forth in the Purchase Agreement and outlined below.

The acquisition was accounted for as a business combination in accordance with ASC 805, “Business Combinations”. Under ASC 805, the consideration transferred is allocated based upon the fair value of the identifiable assets acquired and liabilities assumed on the acquisition date. We are in the process of completing the determination of the fair values of the assets acquired and liabilities assumed, including reviewing third-party valuations, the allocation of the intangibles and goodwill and tax effects related to the acquisition. Therefore, the provisional measurements of fair value are subject to change. We expect to complete the purchase price allocation as soon as practicable but no later than one year from the acquisition date. During the three months ended September 30, 2022, there were no changes to provisional amounts previously determined.

The preliminary allocation of consideration paid for the Optodot acquisition is summarized as follows:

		Amount
Fair value of unrestricted common stock issued or to be issued (1)	$	41,791,115
Fair value of restricted common stock issued (2)		8,342,152
Cash consideration		3,500,000
Total consideration	$	53,633,267
Net assets of Optodot:		
Intangibles		21,453,306
Goodwill		32,179,961
	$	53,633,267

(1) The fair value of the unrestricted common stock issued or to be issued was determined by multiplying 22,348,190 shares, calculated as per the purchase agreement, by the closing share price on June 22, 2022 of $1.87. We have issued 22,305,221 shares on the closing

date of June 22, 2022 and 42,969 shares are yet to be issued. As of September 30, 2022, we recognized $22,305 in common stock and $41,768,810 in additional paid in capital in the interim condensed consolidated statements of changes in stockholders' equity.

(2) The fair value of the restricted common stock issued was determined by multiplying 4,461,044 shares, calculated as per the purchase agreement, by the closing share price on June 22, 2022 of $1.87. The restricted common stock is subject to vesting as follows:

a) Two thirds or 2,974,029 shares shall be subject to the limitations on transfer until the earlier of (A) META's achievement of at least $5,000,000 in revenue, from any third-party source, to the extent resulting from the sale or license of Optodot IP during the year ended June 22, 2023 and (B) June 22, 2023;

b) One third or 1,487,015 shares shall be subject to the limitations on transfer until the earlier of (A) META's achievement of at least $10,000,000 in revenue, from any third-party source, to the extent resulting from the sale or license of Optodot IP during the year ended June 22, 2024 and (B) June 22, 2024;

Deferred Consideration

Based on terms of the agreement outlined above and our consideration of ASC 805, we have classified the deferred consideration in the statement of changes in stockholders' equity since the restricted shares have been already issued and the restriction will be removed at the end of the period specified.

We are in the process of completing the determination of the fair values of the assets acquired and liabilities assumed, including reviewing third-party valuations and the allocation of the intangibles and goodwill. Accordingly, the preliminary values reflected in the table are subject to change. These changes will primarily relate to the fair value assigned to intangible assets acquired, goodwill determination and tax effects related to the acquisition.

Losses from the Optodot acquisition since the acquisition date included in the condensed consolidated interim statements of operations and comprehensive loss for the period ended September 30, 2022 were $0.03 million.

Transaction costs associated with the Optodot acquisition of $0.6 million were recognized in the condensed consolidated interim statements of operations and comprehensive loss for the nine months ended September 30, 2022.

Had the business combination occurred on January 1, 2021, the impact for the three months ended September 30, 2022 would have been an increase to revenue by $Nil and an increase in loss by $Nil (2021 – an increase to revenue by $Nil and an increase to loss by $469,090).

Had the business combination occurred on January 1, 2021, the impact for the nine months ended September 30, 2022 would have been an increase to revenue by $41,871 and an increase in loss by $772,395 (2021 – an increase to revenue by $121,530 and an increase to loss by $1,393,035).

4. Related party transactions

As of September 30, 2022, and December 31, 2021, receivables due from a related party (Lamda Guard Technologies Ltd, or "LGTL") were $8,552 and $10,657, respectively.

5. Assets held for sale

As of September 30, 2022 and December 31, 2021, assets held for sale represent the acquired oil and natural gas properties from the Torchlight RTO.

Orogrande Project, West Texas

Our outstanding drilling obligation includes five wells in 2022 and 2023. All drilling obligations through December 31, 2021 have been met. The drilling obligations are minimum yearly requirements and may be exceeded if acceleration is desired.

During the three and nine months ended September 30, 2022, we have incurred an additional $0.1 million and $1.6 million, respectively, in costs to meet compliance requirements with the relevant leases.

We have obtained an updated valuation study performed by a third-party valuation firm to estimate the fair value of the Orogrande project assets and the related preferred stock dividends liability. The estimates involved are consistent with those outlined as part of the

acquisition. The valuation concluded an implied enterprise value to be between $53.0 million and $108.7 million. We recorded the fair value of the Orogrande Project property at $71.7 million as the median value.

The Orogrande Project ownership as of September 30, 2022 is detailed as follows:

	Revenue Interest	Working Interest
University Lands - Mineral Owner	20.00%	n/a
ORRI - Magdalena Royalties, LLC, an entity controlled by Gregory McCabe, Chairman	4.50%	n/a
ORRI - Unrelated Party	0.50%	n/a
Hudspeth Oil Corporation, a subsidiary of Meta Materials Inc.	49.88%	66.50%
Wolfbone Investments LLC, an entity controlled by Gregory McCabe, Chairman	18.75%	25.00%
Conversion by Note Holders in March, 2020	4.50%	6.00%
Unrelated Party	1.88%	2.50%
	100.00%	100.00%

Hazel Project in the Midland Basin in West Texas

As previously disclosed in the condensed consolidated interim financial statements for the three months ended March 31, 2022, we concluded that the fair value of the Hazel Project property is $Nil based on an engineering reserve report prepared by PeTech Enterprises, Inc. ("PeTech"), a third-party Reserve Engineer. The calculations were prepared using standard geological and engineering methods generally accepted by the petroleum industry and in accordance with SEC financial accounting and reporting standards.

6. Inventory

Inventory consists of photosensitive materials, lenses, laser protection film and finished eyewear, and is comprised of the following:

	As of	
	September 30, 2022	December 31, 2021
Raw materials	$ 154,267	$ 196,868
Supplies	11,584	8,886
Work in process	61,618	30,636
Finished goods	46,621	29,328
Total inventory	$ 274,090	$ 265,718

7. Property, plant and equipment, net

Property, plant and equipment consist of the following:

	Useful life	As of	
	(years)	September 30, 2022	December 31, 2021
Land	N/A	$ 434,084	$ 469,317
Building	25	5,019,494	5,509,403
Computer equipment	3-5	422,405	262,320
Computer software	1	304,306	277,717
Manufacturing equipment	2-5	22,243,051	17,762,405
Office furniture	5-7	577,426	525,961
Enterprise Resource Planning software	5	195,297	211,149
Leasehold Improvements	5	2,380,428	236,251
Assets under construction	N/A	12,127,399	8,872,695
		43,703,890	34,127,218
Accumulated depreciation and impairment		(9,169,845)	(7,109,104)
		$ 34,534,045	$ 27,018,114

Depreciation expense was $1.0 million and $0.4 million for the three months ended September 30, 2022, and 2021, respectively, and $2.6 million and $1.1 million for the nine months ended September 30, 2022 and 2021, respectively.

Property, plant and equipment is pledged as security under a General Security Agreement (a "GSA") signed in favor of the Royal Bank of Canada ("RBC") on July 14, 2014, which is related to our corporate bank account and credit card and includes all property, plant and equipment and intangible assets.

8. Intangible assets and goodwill

Intangible assets consist of the following:

	Useful life (years)	As of September 30, 2022	As of December 31, 2021
Patents	5-10	$ 34,019,095	$ 7,839,182
Trademarks	N/A	122,423	132,636
Developed technology	20	13,810,462	14,931,377
Customer contract	5	9,484,205	10,253,983
		57,436,185	33,157,178
Accumulated amortization		(6,410,757)	(4,185,354)
		$ 51,025,428	$ 28,971,824

Amortization expense was $0.9 million and $0.2 million for the three months ended September 30, 2022, and 2021, respectively, and $2.8 million and $0.7 million for the nine months ended September 30, 2022 and 2021 respectively.

Patent additions include a provisional amount of $6.8 million in acquired patents as part of the PAL acquisition, subject to change, and $21.5 million in acquired patents as part of the Optodot acquisition, subject to change. See Note 3.

Goodwill

Goodwill at December 31, 2021	$ 240,376,634
Business combination	10,163,592
Effect of foreign exchange on goodwill	28,512,131
Goodwill at September 30, 2022	$ 279,052,357

Goodwill is tested for impairment annually as of December 31 or more frequently when events or changes in circumstances indicate that impairment may have occurred. As of September 30, 2022, goodwill include a provisional amount of $8.5 million as part of the PAL acquisition, subject to change, and $32.2 million as part of the Optodot acquisition, subject to change.

9. Long-term debt

	As of	
	September 30, 2022	December 31, 2021
ACOA Business Development Program ("BDP") 2012 interest-free loan[1] with a maximum contribution of CA$500,000, repayable in monthly repayments commencing October 1, 2015 of CA$5,952 until June 1, 2023. Loan repayments were temporarily paused effective April 1, 2020 until January 1, 2021 as a result of the COVID-19 outbreak. As at September 30, 2022, the amount drawn down on the loan, net of repayments, is CA$53,571 (December 31, 2021 - CA$107,143).	$ 38,058	$ 80,390
ACOA Atlantic Innovation Fund ("AIF") 2015 interest-free loan[1,2] with a maximum contribution of CA$3,000,000. Annual repayments, commencing June 1, 2021, are calculated as a percentage of gross revenue for the preceding fiscal year, at Nil when gross revenues are less than CA$1,000,000, 5% when gross revenues are less than CA$10,000,000 and greater than CA$1,000,000, and CA$500,000 plus 1% of gross revenues when gross revenues are greater than CA$10,000,000. As at September 30, 2022, the amount drawn down on the loan is CA$2,661,293 (December 31, 2021 - CA$2,924,615).	1,513,930	1,666,764
ACOA BDP 2018 interest-free loan[1,3] with a maximum contribution of CA$3,000,000, repayable in monthly repayments commencing June 1, 2021 of CA$31,250 until May 1, 2029. As at September 30, 2022, the amount drawn down on the loan, net of repayments, is CA$2,500,000 (December 31, 2021 - CA$2,781,250).	1,148,679	1,319,130
ACOA BDP 2019 interest-free loan[1] with a maximum contribution of CA$100,000, repayable in monthly repayments commencing June 1, 2021 of CA$1,400 until May 1, 2027. As at September 30, 2022, the amount drawn down on the loan, net of repayments, is CA$77,778 (December 31, 2021 - CA$90,278).	35,560	42,011
ACOA Regional Relief and Recovery Fund ("RRRF") 2020 interest-free loan with a maximum contribution of CA$390,000, repayable on monthly repayments commencing April 1, 2023 of CA$11,000 until April 1, 2026. As at September 30, 2022, the amount drawn down on the loan is CA$390,000 (December 31, 2021 - CA$390,000).	144,503	120,154
	2,880,730	3,228,449
Less: current portion	742,782	491,278
	$ 2,137,948	$ 2,737,171

[1] We were required to maintain a minimum balance of positive equity throughout the term of the loan. However, on November 14, 2019, ACOA waived this requirement for the period ending June 30, 2019 and for each period thereafter until the loan is fully repaid.

[2] The carrying amount of the ACOA AIF loan is reviewed each reporting period and adjusted as required to reflect management's best estimate of future cash flows, discounted at the original effective interest rate.

[3] A portion of the ACOA BDP 2018 loan was used to finance the acquisition and construction of manufacturing equipment resulting in $425,872 was recorded as deferred government assistance, which is being amortized over the useful life of the associated equipment. We recorded amortization expense for the three and nine months ended September 30, 2022 of $Nil and $3,047, respectively compared to recorded amortization expense of $35,404 and $109,497, for the three and nine months ended September 30, 2021 respectively) as government assistance in the condensed consolidated interim statements of operations and comprehensive loss. As of September 30, 2022, the portion recorded as deferred government assistance is amortized in full.

10. Capital stock

Common stock

Authorized: 1,000,000,000 common shares, $0.001 par value.

All references to numbers of common shares and amounts in the condensed consolidated interim statements of changes in stockholder's equity and in the notes to the condensed consolidated interim financial statements have been retroactively restated to reflect as if the Torchlight RTO had taken place as of the beginning of the earliest period presented.

- The number of common shares issued pre-Torchlight RTO have been multiplied by the 1.845 Torchlight conversion ratio.
- The amounts of common shares issued pre-Torchlight RTO were calculated by multiplying the number of shares by 0.001 and the 1.845 Torchlight conversion ratio and the difference were recognized in additional paid in capital.

During the nine months ended September 30, 2022, 1,988,617 warrants were exercised to purchase 1,623,700 common shares where most warrant holders elected cashless exercise and consequently, the difference of 364,929 shares was withheld to cover the exercise cost.

During the nine months ended September 30, 2022, 1,252,546 stock options were exercised to purchase an equal number of common shares. In addition, 224,519 restricted stock units have vested and settled into an equal number of common shares.

During the nine months ended September 30, 2022, we issued 9,677,419 common stock as consideration in relation to the PAL acquisition and 26,766,265 as consideration in relation to the Optodot acquisition (note 3).

During the nine months ended September 30, 2022, we issued 223,052 common shares at $1.87 as a compensation to a service provider in relation to the Optodot acquisition.

Registered direct offering

On June 24, 2022, we entered into a securities purchase agreement, as amended and restated on June 27, 2022, with certain institutional investors (the "SPA") for the purchase and sale in a registered direct offering of 37,037,039 shares of our common stock at a purchase price of $1.35 per share and warrants to purchase 37,037,039 shares at an exercise price of $1.75 per share. This resulted in gross proceeds from the offering of $50 million and net proceeds of $46.3 million.

The gross proceeds were allocated between common stock and accompanying warrants based on their relative fair values. The fair value of common stock was calculated based on the closing share price on June 27, 2022 of $1.15. The fair value of the warrants was estimated using the Black-Scholes option pricing model. Accordingly, we have allocated $27.9 million as the fair value of common stock and $18.5 million as the fair value of warrants.

The warrants are exercisable six months after the date of issuance, expire five and a half years from the date of issuance and have an exercise price of $1.75 per share of common stock. We have evaluated the warrants as either equity-classified or liability-classified instruments based on an assessment of the warrants' specific terms and applicable authoritative guidance in ASC 480, "Distinguishing Liabilities from Equity" and ASC 815, "Derivatives and Hedging". We have concluded that the warrants are considered indexed to our common shares and as such they have been classified as equity.

Warrants

The following table summarizes the changes in our warrants:

	Nine months ended September 30, 2022	
	Number of warrants (#)	Amount
Outstanding, December 31, 2021	5,264,959	$ 6,957,974
Issued	37,337,039	18,714,297
Exercised	(1,988,617)	(251,860)
Expired	(692,462)	(101,211)
Outstanding, September 30, 2022	39,920,919	$ 25,319,200

On May 10, 2022, our Board of Directors approved a grant to a non-employee of 300,000 fully vested warrants, which have a 5-year term. The warrants have an exercise price of $1.18 per share, based on the closing price of our common stock on May 10, 2022.

On June 27, 2022, we issued 37,037,039 warrants exercisable six months after the date of issuance, expire five and a half years from the date of issuance and have an exercise price of $1.75 per share of common stock as part of the registered direct offering.

The fair value of warrants issued were estimated using the Black-Scholes option pricing model and have the following inputs and assumptions:

	Nine months ended September 30, 2022
Weighted average grant date fair value	0.53
Weighted average expected volatility	89%
Weighted average risk-free interest rate	3.18%
Weighted average expected life of the warrants	5.00

11. Stock-based payments

On December 3, 2021, our shareholders approved the 2021 Equity Incentive Plan to utilize the 3,500,000 shares reserved and unissued under the Torchlight 2015 Stock Option and Grant Plan and the 6,445,745 shares reserved and unissued under the MMI 2018 Stock Option and Grant plan to set the number of shares reserved for issuance under the 2021 Equity Incentive Plan at 34,945,745 shares.

The 2021 Equity Incentive Plan allows the grants of non-statutory stock options, restricted stock, restricted stock units ("RSUs"), stock appreciation rights, performance units and performance shares to employees, directors, and consultants.

DSU Plan

On March 28, 2013, we implemented a Deferred Stock Unit (DSU) Plan for our directors, employees and officers. Directors, employees and officers are granted DSUs with immediate vesting as a form of compensation. Each unit is convertible at the option of the holder into one common share. Eligible individuals are entitled to receive all DSUs (including dividends and other adjustments) no later than December 1st of the first calendar year commencing after the time of termination of their services.

As of September 30, 2022, there were 3,647,026 outstanding DSUs. There were no new DSUs issued, no DSUs exercised and no DSUs expired during the nine months ended September 30, 2022.

RSU Plan

Each unit is convertible at the option of the holder into one common share of our shares upon meeting the vesting conditions.

Total stock-based compensation expense related to RSUs included in the condensed consolidated interim statements of operations was as follows:

	Three months ended September 30,		Nine months ended September 30,	
	2022	2021	2022	2021
Cost of sales	$ 167,779	-	$ 376,250	-
Selling & marketing	101,165	-	231,365	-
General & administrative	519,769	-	1,036,931	-
Research & development	447,707	-	1,640,939	-
	$ 1,236,420	-	$ 3,285,485	-

The following table summarizes the change in outstanding RSUs:

	Number of RSUs (#)	Weighted Average grant date fair value
Outstanding, December 31, 2021	300,000	$ 6.43
Granted	6,676,598	3.15
Awards forfeited	(217,445)	1.62
Awards vested and settled	(224,519)	1.09
Outstanding, September 30, 2022	6,534,634	$ 3.31
Vested, September 30, 2022	606,919	$ 1.58

Employee Stock Option Plan

Each stock option is convertible at the option of the holder into one common share upon payment of exercise price.

Total stock-based compensation expense related to stock options included in the condensed consolidated interim statements of operations and comprehensive loss was as follows:

	Three months ended September 30,		Nine months ended September 30,	
	2022	2021	2022	2021
Selling & marketing	$ 53,543	$ 5,976	$ 118,598	$ 26,935
General & administrative	506,392	93,453	4,775,793	434,135
Research & development	344,067	101,347	1,583,794	383,489
	$ 904,002	$ 200,776	$ 6,478,185	$ 844,559

The following table summarizes the change in our outstanding stock options:

	Number of Options (#)	Weighted Average exercise price per stock option	Weighted Average exercise remaining contractual term (years)	Aggregate intrinsic value
Outstanding, December 31, 2021	21,404,641	$ 0.36	$ 7.34	$ 56,924,556
Granted	12,150,571	1.68		
Forfeited	(200,896)	0.74		
Exercised	(1,252,546)	0.27		
Outstanding, September 30, 2022	32,101,770	$ 0.86	$ 9.00	$ 7,190,452
Exercisable, September 30, 2022	22,233,380	$ 0.80	$ 8.18	$ 5,958,166

Below is a summary of the outstanding options as of September 30, 2022 and December 31, 2021:

	September 30, 2022		December 31, 2021	
Exercise price	Number outstanding #	Number exercisable #	Number outstanding #	Number exercisable #
$ 0.12	518,112	518,113	518,112	518,112
0.15	369,000	369,000	369,000	369,000
0.27	17,714,087	14,471,227	19,067,529	10,893,918
0.94	957,274	45,000	—	—
1.00	375,000	375,000	375,000	325,000
1.17	1,730,138	386,087	—	—
1.21	1,119,120	552,752	—	—
1.51	741,987	741,987	—	—
1.58	5,107,941	1,305,103	—	—
1.97	1,894,111	1,894,111	—	—
2.00	1,075,000	1,075,000	1,075,000	1,125,000
3.47	200,000	200,000	—	—
7.96	300,000	300,000	—	—
	32,101,770	22,233,380	21,404,641	13,231,030

The fair value of options granted was estimated at the grant date using the following weighted-average assumptions:

	Nine months ended September 30, 2022
Grant date fair value	0.90
Weighted average expected volatility	83%
Weighted average risk-free interest rate	2.23%
Weighted average expected life of the options	4.71 years

Where possible, we use the simplified method to estimate the expected term of employee stock options. We do not have adequate historical exercise data to provide a reasonable basis for estimating the expected term for the current share options granted. The simplified method assumes that employees will exercise share options evenly between the period when the share options are vested and ending on the date when the options would expire.

The expected volatility reflects the assumption that the historical volatility over a period similar to the life of the options is indicative of future trends, which may not necessarily be the actual outcome.

12. Income taxes

We estimate our annual effective income tax rate in recording our quarterly provision for income taxes in the various jurisdictions in which we operate. Statutory tax rate changes and other significant or unusual items are recognized as discrete items in the quarter in which they occur.

Our effective tax rate for the three and nine months ended September 30, 2022 differs from the statutory rates due to valuation allowance as well as different domestic and foreign statutory tax rates.

Deferred tax recovery for the three and nine months ended September 30, 2022 and 2021 was as follows:

	Three months ended September 30,		Nine months ended September 30,	
	2022	2021	2022	2021
Deferred tax recovery	$ 37,208	$ 83,657	$ 147,193	$ 186,183

We have not yet been able to establish profitability or other sufficient significant positive evidence, to conclude that our deferred tax assets are more likely than not to be realized. Therefore, we continue to maintain a valuation allowance against our deferred tax assets.

13. Net loss per share

The following table sets forth the calculation of basic and diluted net loss per share during the periods presented:

	Three months ended September 30,		Nine months ended September 30,	
	2022	2021	2022	2021
Numerator:				
Net loss	$ (24,475,320)	$ (11,425,248)	$ (63,892,619)	$ (61,467,070)
Denominator:				
Weighted-average shares, basic	362,260,641	280,080,786	316,661,487	216,135,190
Weighted-average shares, diluted	362,260,641	280,080,786	316,661,487	216,135,190
Net loss per share				
Basic	$ (0.07)	$ (0.04)	$ (0.20)	$ (0.28)
Diluted	$ (0.07)	$ (0.04)	$ (0.20)	$ (0.28)

The following potentially dilutive shares were not included in the calculation of diluted shares above as the effect would have been anti-dilutive:

	Three months ended September 30,		Nine months ended September 30,	
	2022	**2021 [1]**	**2022**	**2021 [1]**
Options	32,101,770	24,572,014	32,101,770	24,572,014
Warrants	39,920,919	5,372,044	39,920,919	5,372,044
DSUs	3,647,026	3,455,224	3,647,026	3,455,224
RSUs	6,534,634	-	6,534,634	-
	82,204,349	33,399,282	82,204,349	33,399,282

[1]All references to numbers in comparative figures have been retroactively restated to reflect the number of stock of the legal parent (accounting acquiree) issuable following the reverse acquisition. The numbers of options, warrants, and DSUs issued pre-Torchlight RTO have been multiplied by 1.845 Torchlight conversion ratio.

14. Additional cash flow information

The net changes in non-cash working capital balances related to operations consist of the following:

	Nine months ended September 30,	
	2022	**2021**
Grants receivable	$ 145,704	$ 38,544
Inventory	(31,543)	103,831
Other receivables	(385,541)	(73,436)
Prepaid expenses	(1,318,903)	(1,342,530)
Other current assets	(1,961,928)	(598,307)
Trade payables	(445,489)	(258,128)
Due from related party	(2,105)	(24,889)
Operating lease Right-of-use Asset	(231)	408,430
Operating lease liabilities	(739,805)	(18,382)
	$ (4,739,841)	$ (1,764,867)

15. Fair value measurements

We use a fair value hierarchy, based on the relative objectivity of inputs used to measure fair value, with Level 1 representing inputs with the highest level of objectivity and Level 3 representing the lowest level of objectivity.

The fair values of cash and cash equivalents, restricted cash, short-term investments, grants and accounts receivables, due from related parties and trade and other payables approximate their carrying values due to the short-term nature of these instruments. The current portion of long-term debt has been included in the below table.

The fair value of assets held for sale is classified as level 3 as the fair value of the O&G assets was estimated by obtaining a valuation study performed by a third-party valuator and an engineering reserve report.

The fair value of the preferred stock liability is classified as level 3 since the fair value measurement of the oil and natural gas properties forms the basis for the fair value measurement of the preferred stock liability as of September 30, 2022.

The fair values of the funding obligation, operating lease liabilities, and long-term debt would be classified at Level 3 in the fair value hierarchy, as each instrument is estimated based on unobservable inputs including discounted cash flows using the market rate, which is subject to similar risks and maturities with comparable financial instruments as of the reporting date.

Carrying values and fair values of financial instruments that are not carried at fair value are as follows:

Financial liability	September 30, 2022		December 31, 2021	
	Carrying value	Fair value	Carrying value	Fair value
Funding obligation	$ 292,749	$ 189,020	$ 268,976	$ 170,338
Operating lease liabilities	4,042,429	5,268,962	4,370,635	6,149,369
Long-term debt	2,880,730	1,884,660	3,228,449	2,303,648

16. Revenue

We have one operating segment based on how management internally evaluates separate financial information, business activities and management responsibility.

Revenue is disaggregated as follows:

	Three months ended September 30,		Nine months ended September 30,	
	2022	2021	2022	2021
Product sales	$ 432,059	$ 297,431	$ 934,299	$ 321,431
Contract revenue [1]	2,003,953	275,181	7,700,135	1,229,648
Other development revenue	20,000	—	120,000	242,156
Development revenue	2,023,953	275,181	7,820,135	1,471,804
	$ 2,456,012	$ 572,612	$ 8,754,434	$ 1,793,235

[1] A portion of contract revenue represents previously recorded deferred revenue that was recognized as revenue after satisfaction of performance obligations either through passage of time or after completion of specific performance milestones.

Customer concentration

A significant amount of our revenue is derived from contracts with major customers. For the three and nine months ended September 30, 2022, revenue from one customer accounted for $2.0 million or 82% and $7.5 million or 86% respectively of total revenue. We currently derive a significant portion of our revenue from contract services with a G10 central bank. In 2021, we acquired a development contract for up to $41.5 million over a period of up to five years. These contract services incorporate both nano-optic and optical thin film technologies and are focused on developing authentication features for future banknotes.

For the three and nine months ended September 30, 2021, we had one customer that accounted for $0.3 million or 51% and $0.7 million or 40% respectively of total revenue.

17. Deferred Revenue

Deferred revenue consists of the following:

	September 30, 2022	December 31, 2021
Satair A/S-exclusive rights	$ 592,626	$ 717,615
Satair A/S-advance against PO	454,075	490,929
LM Aero-MetaSOLAR commercialization	—	92,698
US Deferred Revenue	75,000	75,000
Innovate UK-R&D tax credit	—	18,588
Other deferred revenue	5,884	21,910
	1,127,585	1,416,740
Less current portion	623,895	779,732
	$ 503,690	$ 637,008

18. Loss on financial instruments, net

	Three months ended September 30,		Nine months ended September 30,	
	2022	2021	2022	2021
Loss on unsecured convertible promissory notes – Bridge loan	$ —	$ —	$ —	$ (19,163,417)
Gain on unsecured convertible promissory notes – Torchlight notes	—	—	—	(343,197)
Loss on secured convertible debentures	—	—	—	(16,957,029)
Loss on unsecured convertible debentures	—	—	—	(4,076,448)
	$ —	$ -	$ —	$ (40,540,091)

19. Leases

We entered into the following lease during the nine months ended September 30, 2022:

Burnaby lease expansion

On February 25, 2022, we entered into an agreement to amend our Burnaby lease ("expansion"), to expand the premises by an additional 1,994 square feet, commencing on June 1, 2022, for a period of two years and eleven months. The agreement provides the tenant with early access to the premises at least three months prior to the commencement date to conduct leasehold improvements. We obtained access to the premises on March 25, 2022 and consequently recognized a right-of-use asset and liability for the expansion as of June 30, 2022, of $146,822.

Total operating lease expense included in the condensed consolidated interim statements of operations and comprehensive loss is as follows:

	Three months ended September 30,		Nine months ended September 30,	
	2022	2021	2022	2021
Operating lease expense	$ 440,649	$ 87,193	$ 1,326,370	$ 187,314
Short term lease expense	199,637	86,746	358,877	140,074
Variable and other lease expense	59,678	25,244	174,021	53,128
Total	$ 699,964	$ 199,183	$ 1,859,268	$ 380,516

We have elected the practical expedient in ASC 842 "*Leases*" to not capitalize any leases with initial terms of less than twelve months on our balance sheet and include them as short-term lease expense in the condensed consolidated interim statements of operations and comprehensive loss.

Future minimum payments under non-cancelable operating lease obligations were as follows as of September 30, 2022:

Remainder of 2022	$ 292,037
2023	1,166,619
2024	1,167,031
2025	1,057,062
2026	897,640
Thereafter	2,671,110
Total minimum lease payments	7,251,499
Less: interest	(3,209,070)
Present value of net minimum lease payments	4,042,429
Less: current portion of lease liabilities	(864,519)
Total long-term lease liabilities	$ 3,177,910

20. Commitments and contingencies

Legal Matters

Datalog LWT

On April 30, 2020, our wholly owned subsidiary, Hudspeth Oil Corporation, filed suit against Datalog LWT, Inc. d/b/a Cordax Evaluation Technologies. The suit, Hudspeth Oil Corporation and Wolfbone Investments, LLC v. Datalog LWT, Inc. d/b/a Cordax Evaluation Technologies, was filed in the 189th Judicial District Court of Harris County, Texas. The suit seeks the recovery of approximately $1.4 million in costs incurred as a result of a tool failure during drilling activities on the University Founders A25 #2 well that is located in the Orogrande Field. Working interest owner Wolfbone Investments, LLC, a company owned by our former Chairman Gregory McCabe, is a co-plaintiff in that action. After the suit was filed, Cordax filed a mineral lien in the amount of $104,500 against the Orogrande Field and has sued the operator and counterclaimed against Hudspeth for breach of contract, seeking the same amount as the lien. We have added the manufacturer of one of the tool components that we contend was a cause of the tool failure. It was later discovered that Datalog LWT, Inc. d/b/a Cordax Evaluation Technologies forfeited its charter to conduct business in the State of Texas by failing to timely pay its franchise taxes, and we added members of the board of directors to the case pursuant to the Texas Tax Code. It was recently disclosed that Datalog LWT, Inc. d/b/a Cordax Evaluation Technologies is the subsidiary of a Canadian parent company, Cordax Evaluation Technologies, Inc., who has also been added to the case. Cordax's current Chairman of the Board filed a special appearance after being served with citation, alleging that he was a Canadian citizen with no meaningful ties to Texas. After discovery was conducted on this issue, a nonsuit without prejudice for this Defendant was filed, dismissing him from the case. The remaining parties attended mediation on June 15, 2022, that was unsuccessful in resolving the case. The parties are now engaged in discovery and plan to take depositions of fact and expert witnesses. We are currently identifying and vetting potential expert witnesses. Management is open to an agreed resolution if such an agreement can be reached but is prepared to proceed to trial on the claims, which is currently set for April 17, 2023.

On March 18, 2021, Datalog LWT, Inc. d/b/a Cordax Evaluation Technologies filed a lawsuit in Hudspeth County, Texas seeking to foreclose its mineral lien against the Orogrande Field in the amount of $104,500.01 and recover related attorney's fees. The foreclosure action, Datalog LWT Inc. d/b/a Cordax Evaluation Technologies v. Torchlight Energy Resources, Inc., was filed in the 205th Judicial District Court of Hudspeth County, Texas. We are contesting the lien in good faith and filed a Plea in Abatement on May 10, 2021, seeking a stay in the Hudspeth County lien foreclosure case pending final disposition of the related case currently pending in Harris County, Texas.

SEC Subpoena

In September 2021, we received a subpoena from the Securities and Exchange Commission, Division of Enforcement, in a matter captioned In the Matter of Torchlight Energy Resources, Inc. The subpoena requests that we produce certain documents and information related to, among other things, the merger involving Torchlight Energy Resources, Inc. and Metamaterial Inc. We are cooperating and intend to continue to cooperate with the SEC's investigation. We can offer no assurances as to the outcome of this investigation or its potential effect, if any, on us or our results of operation.

Securities Class Action

On January 3, 2022, a putative securities class action lawsuit was filed in the U.S. District Court for the Eastern District of New York captioned Maltagliati v. Meta Materials Inc., et al., No. 1:21-cv-07203, against us, our Chief Executive Officer, our Chief Financial Officer, Torchlight's former Chairman of the Board of Directors, and Torchlight's former Chief Executive Officer. On January 26, 2022, a similar putative securities class action lawsuit was filed in the U.S. District Court for the Eastern District of New York captioned McMillan v. Meta Materials Inc., et al., No. 1:22-cv-00463. The McMillan complaint names the same defendants and asserts the same claims on behalf of the same purported class as the Maltagliati complaint. The complaints, purportedly brought on behalf of all purchasers of our publicly traded securities from September 21, 2020 through and including December 14, 2021, assert claims under Sections 10(b) and 20(a) of the Securities Exchange Act of 1934 (the "Exchange Act") arising primarily from a short-seller report and statements related to our business combination with Torchlight. The complaints seek unspecified compensatory damages and reasonable costs and expenses, including attorneys' fees. On July 15, 2022, the Court consolidated these actions under the caption In re Meta Materials Inc. Securities Litigation, No. 1:21-cv-07203, appointed lead plaintiffs and approved the lead plaintiffs' selection of lead counsel. Lead plaintiffs filed a consolidated complaint on August 29, 2022. We moved to dismiss that complaint on October 13, 2022.

Shareholder Derivative Action

On January 14, 2022, a shareholder derivative action was filed in the U.S. District Court for the Easter District of New York captioned Hines v. Palikaras, et al., No. 1:22-cv-00248. The complaint names as defendants certain of our current officers and directors, certain former Torchlight officers and directors, and us (as nominal defendant). The complaint, purportedly brought on behalf of the Company, asserts claims under Section 14(a) of the Exchange Act, contribution claims under Sections 10(b) and 21D of the Exchange Act, and various state law claims such as breach of fiduciary duties and unjust enrichment. The complaint seeks, among other things, unspecified compensatory damages in favor of the Company, certain corporate governance related actions, and an award of costs and expenses to the derivative plaintiff, including attorneys' fees. On March 9, 2022, the Court entered a stipulated order staying this action until there is a ruling on a motion to dismiss in the securities class action.

Westpark Capital Group

On July 25, 2022, WestPark Capital Group, LLC filed a complaint in Los Angeles County Superior Court against us for breach of contract, alleging that it is owed a $450,000 commission as a placement agent with respect to our June 2022 direct offering. On August 31, 2022, we filed an answer to the complaint. We dispute that WestPark Capital Group placed the investor in the direct offering and is owed a commission.

Contractual Commitments and Purchase Obligations

a) On January 29, 2021, we arranged an irrevocable standby letter of credit with Toronto Dominion Bank ("TD") in favor of Covestro Deutschland AG ("Covestro") for EUR 600,000 in relation to Cooperation Framework Agreement ("CFA"). In the event we fail to meet the performance milestones under the CFA, Covestro shall draw from the letter of credit with TD. The letter of credit was secured by restricted cash of CA$1,000,000 under a cash use agreement which has been recorded as long-term debt in the consolidated balance sheets. We have assessed the performance milestones against ASC 606 and recognized the full contract amount as development revenue in the year ended December 31, 2021. As of September 30, 2022, Covestro has issued certificates of reduction totaling EUR 325,000 and the letter of credit had an outstanding amount of $287,399 (EUR 275,000).

b) During 2020, we signed a three-year supply deal with Covestro Deutschland AG, which provides early access to new photo-sensitive holographic film materials, the building block of our holographic product. We believe this agreement will not only allow early access to Covestro's R&D library of photopolymer films but will also accelerate our 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. The agreement is valid till October 31, 2023.

c) During 2018, we arranged a guarantee/standby letter of credit with RBC in favor of Satair A/S for $500,000 in relation to an advance payment received. In the event we fail to deliver the product as per the contract or refuse to accept the return of the product as per the buyback clause of the contract or fails to repay the advance payment in accordance with the conditions of the agreement signed with Satair on September 18, 2018, Satair shall draw from the letter of credit with RBC. Borrowings from the letter of credit with RBC are repayable on demand. The letter of credit from RBC is secured by a performance security guarantee cover issued by Export Development of Canada. Further, this guarantee/standby letter of credit expires on October 5, 2023. As of September 30, 2022, no amount has been drawn from the letter of credit with RBC.

d) On December 8, 2016, we 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 us in the form of non-recurring engineering costs of up to $4,000,000 to be released upon agreement of technical milestones in exchange for a royalty fee due by us on gross profit after sales and distribution costs. The total royalty fee to be paid may be adjusted based on the timing of our sales and the amount ultimately paid to us by large aircraft manufacturer to support the development.

e) Certain nano-optic products are subject to a 3% sales royalty in favour of Simon Fraser University ("SFU") where certain elements of the nano-optic technology originated. Royalties were $484 during the nine months ended September 30, 2022 (2021 - $324). In 2014, our wholly owned subsidiary, Nanotech, prepaid royalties that would offset against future royalties owed as part of the transfer of the intellectual property from SFU, of which $196,532 remains prepaid as at September 30, 2022 (December 31, 2021 - $197,016).

f) Our product revenue is associated with six patents acquired by Nanotech and are subject to royalties. We agreed to share 10% of any revenues related to the patents received from a specific customer for a period of two years and ongoing royalties of 3% to 6%

on other revenues derived from the patents for a period of five years. There were no royalties during the nine months ended September 30, 2022 (2021 - $Nil).

g) As of September 30, 2022, we had ongoing commitments for maintenance contracts and asset purchases as follows:

Remainder of 2022	$	998,862
2023		218,635
2024		3,936
	$	1,221,433

21. Subsequent events

Subsequent to September 30, 2022, 491,519 fully vested RSUs have been issued in common shares and 61,095 stock options have been exercised.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following Management's Discussion and Analysis of Financial Condition and Results of Operations should be read in conjunction with our condensed consolidated interim financial statements and related notes thereto included in Part I, Item I of this Quarterly Report on Form 10-Q. For additional information regarding our financial condition and results of operations, see "Management's Discussion and Analysis of Financial Condition and Results of Operations" included in Part II, Item 7 in the Amendment No. 1 to our Annual Report on Form 10-K/A for the year ended December 31, 2021, filed with the Securities and Exchange Commission ("SEC") on May 2, 2022 (the "Form 10-K/A"), as well as our consolidated financial statements and related notes thereto included in Part II, Item 8 of the Form 10-K/A. As discussed in the section titled "Forward-Looking Statements," the following discussion contains forward-looking statements that involve risks and uncertainties. Factors that could cause or contribute to such differences include those identified below and those discussed in the "Part II, Item 1A (Risk Factors)" and other parts of this Quarterly Report on Form 10-Q and in the Form 10-K/A. Our historical results are not necessarily indicative of the results that may be expected for any period in the future.

Overview

Meta Materials Inc. (the "Company" or "META" or "Resulting Issuer") is a developer of high-performance functional materials and nanocomposites specializing in metamaterial research and products, nanofabrication, and computational electromagnetics. Our registered office is located at 85 Swanson Road, Boxborough, Massachusetts 01719, and our principal executive office is located at 1 Research Drive, Halifax, Nova Scotia, Canada.

Throughout 2021, our activities were focused on our research and development efforts as well as expansion of our intellectual property portfolio. Throughout 2022, new emphasis is being placed on investments in pilot scale manufacturing of our NANOWEB® products, expansion of our production capacity in our banknote and brand security lines, and more aggressive design, development and clinical testing of our broad array of medical products. For more information regarding our business, see Part I, Item I (Business). of the Form 10-K/A.

Known Trends and Uncertainties

Inflation

A prolonged period of inflation in Europe, for energy costs in particular, could cause shortages or material cost increases for certain key raw materials, for which we depend on European suppliers. In particular, shortages or cost increases in certain polymers used in our Holography products could result in higher costs for these products that may not be able to be passed on to our customers.

Inflation in North America, for labor costs and transportation costs in particular, could elevate our costs of hiring new team members and cause increases in our labor costs for existing team members. In addition, rising transportation costs are likely to increase our costs for shipping our products and the costs associated with our material purchases.

Vehicle Electrification

The transition from internal combustion engine (ICE) vehicles to electric vehicles (EVs) may be accelerated by recent disruptions in global oil supply, reduced investment in new domestic oil exploration, and increased government support for domestic EV production, battery and battery materials supply chain, and EV charging infrastructure. This may increase the opportunity for META to scale up battery materials production, acquire new battery component customers, and obtain government funding for capital projects. It could also accelerate demand for certain of our NANOWEB® products targeting EV's.

Global Chip Shortage

A global shortage of computer chips has triggered significant delays in product launches in the automotive industry. Should these shortages continue, META could experience on-going delays in orders for our NANOWEB® products from this vertical market since these products are intended to be incorporated into planned mew models.

Expanding Operations, Facilities and Staffing

META is expanding capacity and facilities to support a growing range of market opportunities. This includes a new headquarters facility in Dartmouth, Nova Scotia; expanded production capacity in Thurso, Quebec; and new development facilities in Maryland for Electro Optics and IR, and in Massachusetts for the Battery Materials team. These activities require capital investments, increased overhead for leased facilities, and higher operating expenses for personnel additions. The timing of new customer programs and revenues associated with these expansions is uncertain and META may require additional financing to support the related cash consumption.

Expanding Focus and Emphasis on Information Technology

With the rapid growth of our global business, our data protection and cyber security needs have become a significant element of our business. Failure on our part to invest in the tools, equipment and personnel required to adequately manage these elements could result in regulatory issues, claims by customers and potential financial liabilities. Further, customer prospects identifying such failures could decide to delay or abandon orders from us.

NANOWEB® Capacity

Our NANOWEB® products have not yet reached the required manufacturing scale to enable us to address the volume demands of a number of our target vertical markets. We must either design, develop and procure additional internal capacity to produce NANOWEB® in higher volume and larger formats or identify outsourced suppliers capable of producing our designs. Internal capacity expansion may require higher capital expenditures and faces risk of supply chain delays. Outsourced production may increase variable costs and put pressure on gross margins as we scale volumes.

Recent Acquisitions

Plasma App Ltd.

On April 1, 2022, we completed the purchase of 100% of the issued and outstanding shares of Plasma App Ltd. ("PAL") through the issuance of 10,752,687 common shares with an estimated fair value on the closing date of $17 million. The number of shares were calculated as the sum of 9,677,419 shares, equal to $18,000,000 divided by $1.86 (the volume weighted average price for the ten trading days ending on March 31, 2022), and 1,075,268 shares, equal to $2,000,000 divided by $1.86, to be issued at a later date subject to satisfaction of certain claims and warranties.

PAL is the developer of PLASMAfusion®™, a first of its kind, proprietary manufacturing platform technology, which enables high speed coating of any solid material on any type of substrate. The PAL team is located at the Rutherford Appleton Laboratories in Oxford, UK. 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. PAL is also developing coated copper current collectors for lithium-ion batteries as a replacement for solid copper foils. Thin layers of copper deposited on both sides of a polyester substrate via PLASMAfusion® offer significant weight reduction, increasing energy density, while the polyester inner layer acts like a fuse, inhibiting thermal runaway to enhance battery safety.

Optodot Corporation

On June 22, 2022, we completed an asset purchase agreement with Optodot Corporation ("Optodot") to acquire certain assets related to patents and intellectual property for the battery and other industries through the issuance of a combination of cash of $3.5 million and common stock of 26,809,234 shares with an estimated total fair value on the closing date of $53.6 million. The number of shares were calculated as the sum of 22,348,190 shares, equal to $37,500,000 divided by $1.68 (the volume weighted average price for the twenty trading days ending on June 21, 2022), and 4,461,044 shares, equal to $7,500,000 divided by $1.68, to be issued at a later date subject to certain vesting milestones as set forth in the purchase agreement.

Optodot is a leading developer and licensor of nano-composite battery separators and infrared optical coating technologies. Its NPORE® separators eliminate the use of plastic substrate and provide superior functionality and outstanding heat resistance for current and next generation lithium-ion batteries. Its NANOPORE® nanoporous membrane technology is also intended to be used to improve the performance of our medical products, in particular, our radiWISE product for signal to noise improvement in MRI scanning. Also, its Electrode Coated Separators (ECS) combine what is presently two discrete functions in the LI batteries and offer a simpler, faster, lower-cost assembly process compatible with current and future battery chemistries.

Basis of Presentation

The following discussion highlights our results of operations and the principal factors that have affected our financial condition as well as our liquidity and capital resources for the periods described and provides information that management believes is relevant for an assessment and understanding of the condensed consolidated interim balance sheet and statements of operation and comprehensive loss presented herein. The following discussion and analysis are based on our consolidated financial statements contained in this Quarterly

Report, which we have prepared in accordance with U.S. generally accepted accounting principles ("GAAP"). You should read the discussion and analysis together with such condensed consolidated interim financial statements and the related notes thereto.

Critical Accounting Estimates

Our condensed consolidated interim financial statements and the related notes thereto are prepared in accordance with GAAP. The preparation of condensed consolidated interim financial statements also requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, costs and expenses and related disclosures. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. Actual results could differ significantly from our estimates. To the extent that there are differences between our estimates and actual results, our future financial statement presentation, financial condition, results of operations and cash flows will be affected.

There have been no material changes to our critical accounting estimates as described in our Annual Report on Form 10-K/A for the year ended December 31, 2021.

Recent Accounting Pronouncements

For a description of recent accounting pronouncements, including the expected dates of adoption and estimated effects, if any, on our condensed consolidated interim financial statements, please see "Note 2—Significant accounting policies" in the Notes to Condensed Consolidated Interim Financial Statements of this Quarterly Report on Form 10-Q.

RESULTS OF OPERATIONS

Revenue and Gross Profit

Our revenue is generated from product sales as well as development revenue. We recognize revenue when we satisfy performance obligations under the terms of our contracts, and control of our products is transferred to our customers in an amount that reflects the consideration we expect to receive from our customers in exchange for those products or services.

Product Sales

Product sales include products, components, and samples sold to our customers. Revenue from the sale of prototypes and finished products is recognized at the point in time when control of the asset is transferred to the customer, generally on delivery of goods. We consider whether there are other obligations in the contract that are separate performance obligations to which a portion of the transaction price needs to be allocated. In determining the transaction price for the sale of prototypes, we consider the effects of variable consideration, the existence of significant financial components, non-cash consideration and consideration payable to the customer (if any).

Development Revenue

Development Revenue consists of revenues from contract services and research services, including non-recurring engineering services. Revenue from development activities is recognized over time, using an input method to measure progress towards complete satisfaction of the research activities and associated performance obligations identified within each contract have been satisfied.

Cost of Goods Sold

Cost of Goods Sold consists of direct material used in production, depreciation expenses of machinery and equipment used in production, salaries and benefits relating to the production staff, and other overheads allocated to production.

	Three months ended September 30,				Nine months ended September 30,			
	2022	2021	Change		2022	2021	Change	
Product sales	$ 432,059	$ 297,431	$ 134,628	45%	$ 934,299	$ 321,431	$ 612,868	191%
Development revenue	2,023,953	275,181	1,748,772	635%	7,820,135	1,471,804	6,348,331	431%
Total Revenue	2,456,012	572,612	1,883,400	329%	8,754,434	1,793,235	6,961,199	388%
Cost of goods sold	696,730	145,103	551,627	380%	2,353,393	146,209	2,207,184	1510%
Gross Profit	$ 1,759,282	$ 427,509	$ 1,331,773	312%	$ 6,401,041	$ 1,647,026	$ 4,754,015	289%

Comparison of the Three and Nine Months Ended September 30, 2022 to the Three and Nine Months Ended September 30, 2021

Product Sales

The increase in product sales for the three months ended September 30, 2022, as compared to the same period of 2021, is primarily due to $0.1 million increase in sales revenue from our nanoimprint-lithography revenue - banknotes applications.

Development Revenue

The increase in development revenue for the three and nine months ended September 30, 2022 of $1.8 million and $6.4 million respectively is mainly due to our Lithography revenue - banknotes applications in Q1,Q2 and Q3 2022 of $2.6 million, $3.0 million and $1.9 million respectively offset by $1.1 million decrease due to the completion of certain development contracts in 2021. We derive a significant portion of our revenue from contract services with a confidential G10 central bank. In 2021, we acquired Nanotech which had a development contract for up to $41.5 million over a period of up to five years. These contract services incorporate both nano-optic and optical thin film technologies and are focused on developing authentication features for future banknotes.

Cost of Goods Sold

The increase in cost of goods sold for the three and nine months ended September 30, 2022 of $0.6 million and $2.2 million respectively is mainly due our production cost associated with the Lithography revenue - banknotes applications.

Operating expenses

	Three months ended September 30,				Nine months ended September 30,			
	2022	2021	Change		2022	2021	Change	
Operating Expenses								
Selling & Marketing	$ 1,027,886	$ 427,004	$ 600,882	141%	$ 3,190,951	$ 1,122,469	$ 2,068,482	184%
General & Administrative	16,674,309	9,776,850	6,897,459	71%	45,743,892	16,217,012	29,526,880	182%
Research & Development	6,233,685	1,816,547	4,417,138	243%	16,693,833	5,229,456	11,464,377	219%
Total operating expenses	$ 23,935,880	$ 12,020,401	$ 11,915,479	99%	$ 65,628,676	$ 22,568,937	$ 43,059,739	191%

Selling & Marketing

The increase in selling & marketing expenses of $0.6 million for the three months ended September 30, 2022, as compared to the same period of 2021, is mainly due to a $0.6 million increase in salaries and benefits, including a $0.1 million increase in non-cash equity compensation due to increases in headcount in the latter part of 2021 and early part of 2022 to acquire talent and grow the sales and marketing team.

The increase in selling & marketing expenses of $2.1 million for the nine months ended September 30, 2022, as compared to the same period of 2021, is primarily due to $1.5 million increase in salaries and benefits including a $0.3 million increase in non-cash equity compensation due to increases in headcount in the latter part of 2021 and early part of 2022 to acquire talent and grow the sales and marketing team, and a $0.4 million increase in trade show and travel expenses due to the participation in trade shows and conferences versus the travel restrictions in early 2021, which impacted in-person attendance at such events.

General & Administrative

The increase in general & administrative expenses of $6.9 million for the three months ended September 30, 2022, as compared to the same period of 2021, is primarily due to a $2.4 million increase in professional fees due to the ongoing SEC investigation and lawsuits, acquisition related costs and consulting fees, $3.1 million increase in salaries and benefits including a $0.9 million increase in non-cash equity compensation due to 1) management and support functions growth to keep pace with our overall growth and acquisitions, 2) the acquisition of Nanotech in Q4 2021, PAL and Optodot in Q2 2022, and 3) Contractors hired in Q3 2021 to manage the O&G assets, $0.9 million in depreciation and amortization expenses mainly due to acquired intangible assets in Q4 2021 as part of the Nanotech acquisition as well as the increase in depreciation expense due to acquired equipment in different facilities, $0.1 million increase in rent due to lease expansion of different locations, and $0.2 million increase in travel, subscription and other expenses.

The increase in general & administrative expenses of $29.5 million for the nine months ended September 30, 2022, as compared to the same period of 2021, is primarily due to a $11.4 million increase in professional fees due to the ongoing SEC investigation and lawsuits, acquisition related costs and consulting fees, $11.0 million increase in salaries and benefits including $5.4 million increase in non-cash equity compensation due to 1) management and support functions growth to keep pace with our overall growth and acquisitions, 2) the acquisition of Nanotech in Q4 2021, PAL and Optodot in Q2 2022, and 3) Contractors hired in Q3 2021 to manage the O&G assets, $3.1 million in depreciation and amortization expenses mainly due to acquired intangible assets in Q4 2021 as part of the Nanotech acquisition as well as the increase in depreciation expense due to acquired equipment in different facilities, $1.1 million increase in

insurance due to the insurance requirements the US resulting from our NASDAQ listing at the end of Q2 2021, $0.9 million increase in rent due to lease expansion of different locations, and $1.3 million increase in travel, subscription and other expenses.

Research & Development

The increase in research & development expenses of $4.4 million for the three months ended September 30, 2022, as compared to the same period of 2021, is primarily due to a $2.1 million increase in salaries and benefits including a $0.7 million increase in non-cash equity compensation due to increase in our head count through all locations as a result of 1) expansion in facilities and laboratories, and 2) the acquisition of Nanotech in Q4 2021, PAL and Optodot in Q2 2022, $0.6 million in rent due to lease expansion in different R&D facilities in Canada, USA and Greece, $0.6 million increase in R&D materials, Intellectual Property maintenance fees and consulting expense and $1.1 million increase in travel, subscription and other expenses.

The increase in research & development expenses of $11.5 million for the nine months ended September 30, 2022, as compared to the same period of 2021, is primarily due to a $7.2 million increase in salaries and benefits including a $2.8 million increase in non-cash equity compensation due to increase in our head count through all locations as a result of 1) expansion in facilities and laboratories, and 2) the acquisition of Nanotech in Q4 2021, PAL and Optodot in Q2 2022, $1.3 million in rent due to lease expansion in different R&D facilities in Canada, USA and Greece, $1.1 million increase in R&D materials, Intellectual Property maintenance fees and consulting expense and $1.8 million increase in travel, subscription and other expenses.

Other expense

	Three months ended September 30,				Nine months ended September 30,			
	2022	2021	Change		2022	2021	Change	
Other expense:								
Interest expense, net	$ (134,205)	$ (215,116)	$ 80,911	-38%	$ (440,694)	$ (1,093,833)	$ 653,139	-60%
Loss on foreign exchange, net	(2,223,633)	(440,157)	(1,783,476)	405%	(3,046,955)	(770,542)	(2,276,413)	295%
Loss on financial instruments, net	—	—	—	0%	—	(40,540,091)	40,540,091	-100%
Other (loss) income, net	21,908	739,260	(717,352)	-97%	(1,324,528)	1,673,124	(2,997,652)	-179%
Total other expense	$ (2,335,930)	$ 83,987	$ (2,419,917)	-2881%	$ (4,812,177)	$ (40,731,342)	$ 35,919,165	-88%

Interest Expense, net

The decrease in net interest expense of $0.1 million for the three months ended September 30, 2022, as compared to the same period of 2021, is primarily due to reduced interest accretion in Q3 2022 due to the settlement of the Torchlight promissory notes on June 30, 2021, subsequent to completion of the Torchlight RTO.

The decrease in net interest expense of $0.6 million for the nine months ended September 30, 2022, as compared to the same period of 2021, is primarily due to reduced interest accretion as a result of the conversion of $12 million of promissory notes and debentures into common shares in Q1 2021.

Loss on Foreign Exchange, net

The change in net loss/gain on foreign exchange for the three and nine months ended September 30, 2022, compared to the same period of 2021, is primarily driven by revaluations of intercompany balances in different currencies, mainly Canadian dollars converted to US dollars.

Loss on Financial Instruments, net

No loss on financial instruments were recorded for the three and nine months ended September 30, 2022, as there were no revaluations of financial instruments during the period.

The $0.5 million net loss on financial instruments for the three months ended September 30, 2021 is primarily due to the re-measurement of the $11.0 million Torchlight promissory notes prior to settlement on June 30, 2021 subsequent to completion of the Torchlight RTO and recognition of a $0.5 million non-cash realized loss in the statements of operations in Q3 2021.

The remaining $40.0 million net loss on financial instruments for the nine months ended September 30, 2021 is primarily due to the re-measurement of convertible financial liabilities with carrying value of $12.0 million at the conversion dates and recognition of a $40.0 million non-cash realized loss in the statement of operations and comprehensive loss in Q1 2021. This significant increase in the fair

value of the convertible financial liabilities is due to the significant increase of our stock price from CA$0.66 as at December 31, 2020 to:

- CA$3.01 on February 16, 2021 when we converted unsecured convertible promissory notes of $4.4 million principal and interest at share price of CA$0.50 in accordance with the terms of the bridge financing;
- CA$3.01 on February 16, 2021 when we converted unsecured convertible debentures of $1.5 million principal and interest at share price of CA$0.70 as per terms of the agreement and;
- CA$3.80 on March 3, 2021 when we converted secured convertible debentures of $4 million principal and interest at share price of CA$0.70 pursuant to the terms of the agreement with BDC.

Other (loss) income, net

The decrease in other income / increase in other loss of $0.7 million for the three months ended September 30, 2022, as compared to the same period of 2021, is primarily due to $0.1 million in costs incurred in Q3 2022 in relation to certain drilling activity we carried out at our O&G properties, to remain in compliance with all aspects of our lease obligations and to satisfy the Continuous Drilling Clause ("CDC") with University Lands as well as $0.6 million decrease in cash and non-cash government grants received.

The decrease other income / increase in other loss of $3.0 million for the nine months ended September 30, 2022, as compared to the same period of 2021, is primarily due to $1.5 million costs incurred in the first half of year 2022 in relation to certain drilling activity we carried at our O&G properties, to remain in compliance with all aspects of our lease obligations and to satisfy the Continuous Drilling Clause ("CDC") with University Lands as well as a $1.5 million decrease in cash and non-cash government grants received.

Income Tax recovery

	Three months ended September 30,				Nine months ended September 30,			
	2022	2021	Change		2022	2021	Change	
Income tax recovery	$ 37,208	$ 83,657	$ (46,449)	-56%	$ 147,193	$ 186,183	$ (38,990)	-21%

The decrease in our income tax recovery for the three and nine months ended September 30, 2022, as compared to the same periods of 2021, was driven by an increase in accumulated losses that reduced our net deferred tax liability.

We record deferred income tax liabilities for some of our foreign operations in Canada and United Kingdom.

We have not yet been able to establish profitability or other sufficient significant positive evidence, to conclude that our deferred tax assets are more likely than not to be realized. Therefore, we continue to maintain a valuation allowance against our deferred tax assets.

LIQUIDITY AND CAPITAL RESOURCES

Liquidity risk is the risk that we will not meet our financial obligations as they become due after use of currently available cash. We have 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, our ability to generate revenue from current and prospective customers, general and administrative requirements and the availability of equity or debt capital and government funding. As these variables change, we may be required to issue equity or obtain debt financing.

On September 30, 2022, we had cash, cash equivalents and short-term investments of $32.2 million including $0.4 million in restricted cash and $1.2 million in short-term investments compared to $50.3 million in cash, cash equivalents and short-term investments at December 31, 2021, including $0.8 million in restricted cash and $2.8 million in short-term investments

During the nine months ended September 30, 2022, our principal sources of liquidity included $46.3 million of net proceeds obtained through the issuance of common stock and warrants and revenue of approximately $8.7 million.

Our primary uses of liquidity included $20.2 million in professional fees, $18.6 million in salaries, $12.4 million in capital expenditures, $4.6 as acquisitions cost, $4.0 million change in working capital and $3 million in rent and utilities.

June 2022 Registered Direct Offering

On June 24, 2022, we entered into a securities purchase agreement, as amended and restated on June 27, 2022, with certain institutional investors (the “SPA”) for the purchase and sale in a registered direct offering of 37,037,039 shares of our common stock at a purchase

price of $1.35 per share and warrants to purchase 37,037,039 shares at an exercise price of $1.75 per share. This resulted in gross proceeds from the offering of $50 million and net proceeds of $46.3 million.

At-the-Market Equity Offering Program

On June 24, 2022, we terminated the Amended and Restated Sales Agreement (the "A&R Sales Agreement") with Roth Capital Partners, LLC ("Roth") relating to shares of our common stock. In accordance with the terms of the A&R Sales Agreement, prior to the termination thereof, we were able to offer and sell shares of our common stock having an aggregate offering price of up to $250,000,000 from time to time through Roth, acting as our sales agent, pursuant to at-the-market transactions. As of the date of termination, we had sold an aggregate of 16,185,805 shares of our common stock pursuant to the A&R Sales Agreement for aggregate gross proceeds of approximately $137.5 million.

We believe that our existing cash will be sufficient to meet our working capital and capital expenditure needs for the next 12 months; however, we may need to raise additional capital to expand the commercialization of our products, fund our operations and further our research and development activities. Future capital requirements may vary materially from period to period and will depend on many factors, including the timing and extent of spending on research and development efforts, the capital expansion of our facilities in Halifax, NS, Pleasanton, CA and Thurso, QC, and the ongoing investments to support the growth of our business.

The following table summarizes our cash flows for the periods presented:

	Nine months ended September 30,	
	2022	2021
Net cash used in operating activities	$ (48,516,511)	$ (15,584,000)
Net cash (used in) provided by investing activities	(13,802,619)	140,563,801
Net cash provided by financing activities	46,358,934	14,860,325
Net (decrease) increase in cash, cash equivalents and restricted cash	$ (15,960,196)	$ 139,840,126

Net cash used in operating activities

During the nine months ended September 30, 2022, net cash used in operating activities of $48.5 million was primarily driven by a net loss of $63.9 million for the period, and non-cash adjustments of $20.1 million mainly due to depreciation and amortization of $5.4 million, stock-based compensation of $10.4 million, and unrealized foreign exchange loss of $2.8 million. In addition, there was $4.7 million cash used by working capital primarily due to a $3.3 million decrease of other current assets & prepaids.

During the nine months ended September 30, 2021, net cash used in operating activities of $15.6 million was primarily driven by $61.5 million of net loss reported for the period, and non-cash adjustments of $47.7 million mainly due to fair value losses on financial instruments, depreciation and amortization, interest expense, stock-based compensation, and non-cash consulting expense. In addition, there was $1.8 million cash used by working capital primarily due to a $2.3 million increase in prepaid expenses and other current assets.

Net cash (used in) provided by investing activities

During the nine months ended September 30, 2022, net cash used in investing activities of $13.8 million was primarily driven by proceeds from short-term investments $1.6 million, offset by $11.9 million of capital expenditure associated with the construction of the Highfield Park Facility in Canada as well as the equipment purchases for our facility in California, United States and $3.5 million cash paid for Optodot acquisition.

During the nine months ended September 30, 2021, net cash provided by investing activities of $140.6 million was primarily driven by cash acquired as a result of the Torchlight acquisition of $147 million, offset by $5.5 million purchases of property plant and equipment associated with the construction of the Highfield Park Facility in Canada as well as the equipment purchases for META's facility in California, United States and $0.8 million increase in intangibles as a result of capitalized legal cost of patents as well as patents acquired as part of the Interglass assets.

Net cash provided by financing activities

During the nine months ended September 30, 2022, net cash provided by financing activities of $46.4 million was primarily driven by the cash obtained through the proceeds from the issuance of common stock and warrants through the Securities Purchase Agreements with institutional investors for the purchase and sale in a registered direct offering.

During the nine months ended September 30, 2021, net cash provided by financing activities of $14.9 million was primarily driven by $10 million proceeds from issuance of unsecured convertible promissory notes to Torchlight prior to completion of the Torchlight RTO,

$3.9 million proceeds from issuance of unsecured convertible promissory notes to a shareholder that was subsequently converted into common stock in Q1 2021, $1.1 million proceeds from long-term debt, and $0.5 million proceeds from options and warrants conversion offset by $0.9 million repayments of long-term debt.

Commitments and contractual obligations

For a description of our commitments and contractual obligations, please see "Note 20 — Commitments and contingencies" in the Notes to the Condensed Consolidated Interim Financial Statements of this Quarterly Report on Form 10-Q.

Off-Balance Sheet Arrangements

Off-balance sheet firm commitments relating to outstanding letters of credit amounted to approximately $0.6 million as of September 30, 2022. These letters of credit and bank guarantees are collateralized by $0.4 million in restricted cash. Please see "Note 20 – Commitments and contingencies" in the Notes to the Consolidated Financial Statements of this Quarterly Report on this Form 10-Q. We do not maintain any other off-balance sheet arrangements.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our periodic reports filed with the SEC is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the SEC and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow for timely decisions regarding required disclosure.

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of September 30, 2022.

Although management believes there has been significant improvement in the design and implementation of our internal controls over financial reporting during the first nine months of 2022, we still consider there to be material weaknesses in our internal control over financial reporting that have not yet been remediated. Accordingly, our management, with the participation of our Chief Executive Officer and Chief Financial Officer, concluded that our disclosure controls and procedures were not effective as of September 30, 2022.

Nevertheless, giving full consideration to the material weaknesses and the progress made in addressing them since December 31, 2021, we have concluded that the condensed consolidated interim financial statements included in this Quarterly Report on Form 10-Q present fairly, in all material respects, our financial position, the results of our operations and our cash flows for each of the periods presented in conformity with U.S. generally accepted accounting principles.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining effective internal control over financial reporting, as such term is defined in Securities Exchange Act Rule 13a-15(f). Our internal control over financial reporting is a process designed by and under the supervision of our management, including our Chief Executive Officer and Chief Financial Officer, and effected by our management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated financial statements for external purposes in accordance with U.S. generally accepted accounting principles. Our management, under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer, conducted an evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2021, using the criteria set forth in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this evaluation, management concluded that internal control over financial reporting was not effective as of December 31, 2021, due to material weaknesses in internal control over financial reporting.

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our annual or interim financial statements may not be prevented or detected on a timely basis.

As previously disclosed in our Annual Report on Form 10-K for the year ended December 31, 2021, management determined that it did not maintain effective internal controls over financial reporting due to the existence of identified material weaknesses. Since that time, management, with oversight from our Audit Committee, has been in the process of remediating these material weaknesses. We made significant improvement to our internal controls structure during the first 9 months of 2022 to address the material weaknesses, and we are currently in the process of testing the controls which have been implemented. Despite significant progress, these material weaknesses

will not be considered remediated until the applicable controls have been operating for a sufficient period of time to complete thorough testing and to conclude that they are operating effectively.

Remediation of Previously Reported Material Weaknesses

Management has implemented a number of measures to address the material weaknesses disclosed in the Form 10-K/A. We are currently in the process of testing our key controls with the assistance of a third-party firm, with the intention to continue to strengthen our internal controls over financial reporting to ensure that management can routinely prepare our financial statements under GAAP and remain in compliance with the SEC reporting requirements.

To remediate the weaknesses described above, we have performed the following:

- Hired qualified individuals in accounting and finance, including those experienced in technical accounting and transactional accounting, allowing for proper segregation of duties and reporting structure.
- Hired a Chief Information Officer, an ERP specialist, and additional Information Technology support staff who have assessed the status of ITGC's and implemented changes such as performing, with the help of individual departments, analyses of access restrictions in key information technology applications and assessing necessity and risk associated with specific areas of access.
- Hired a Supply Chain Procurement Director to build a supply chain and logistics function across our locations to assist in the segregation of duties and enforcement of controls surrounding the authorization of purchases and maintenance of inventories.
- Updated and formalized processes and procedures through the creation of multiple process documents including full-cycle flowcharts and a company-wide authorization matrix, which outlines limits of authority for key transactions and commitments. The formalization and documentation of these processes was done with the input of our third-party consultants, with whom we have performed walkthroughs and whom we continue to involve in the implementation of policies and procedures in new acquisitions.

Changes in Internal Controls.

Except for the remediation activities described above, there were no changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that occurred during the quarter ended September 30, 2022 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Limitations on Effectiveness of Internal Controls

Our management, including our Chief Executive Officer and Chief Financial Officer, does not expect that disclosure controls or internal controls, when effective, will prevent all error and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. In addition, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within a company have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake.

Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people or by management’s override of the control. The design of any systems of controls is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving our stated goals under all potential future conditions. Over time, control may become inadequate because of changes in conditions, or the degree of compliance with the policies or procedures may deteriorate. Because of these inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected. Individual persons may perform multiple tasks which normally would be allocated to separate persons and therefore extra diligence must be exercised during the period these tasks are combined.

PART II—OTHER INFORMATION

Item 1. Legal Proceedings

From time to time, we are subject to threats of litigation or actual litigation in the ordinary course of business, some of which may be material. Other than as disclosed in "Note 20— Commitments and contingencies" in the Notes to the Condensed Consolidated Interim Financial Statements of this Quarterly Report on Form 10-Q, we are not currently a party to any pending legal proceedings that, if determined adversely to us, would, in our opinion, have a material effect on our financial position, results of operations, or cash flows or that would not be covered by our existing liability insurance. The results of any litigation cannot be predicted with certainty, and regardless of the outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources and other factors.

Item 1A. Risk Factors

The following factors could materially affect META's business, financial condition or results of operations and should be carefully considered in evaluating us and our business, in addition to other information presented elsewhere in this report. Before you invest in our securities, you should be aware that our business faces numerous financial and market risks, including those described below, as well as general economic and business risks. The following discussion provides information concerning the material risks and uncertainties that we have identified and believe may adversely affect our business, our financial condition and our results of operations. Before you decide whether to invest in our securities, you should carefully consider these risk factors together with all of the other information included in this Quarterly Report on Form 10-Q, and in our other public filings, which could materially affect our business, financial condition or future results. Our risk factors are not guarantees that no such conditions exist as of the date of this report and should not be interpreted as an affirmative statement that such risks or conditions have not materialized, in whole or in part.

Risks Related to our Business

We have a limited operating history, which can make it difficult for investors to evaluate our operations and prospects and may increase the risks associated with investing in us.

We have incurred recurring consolidated net losses since our inception and expects our operating costs to continue to increase in future periods as we expend substantial financial and other resources on, among other things, business and headcount expansion in operations, sales and marketing, research and development, and administration as a public company. These expenditures may not result in additional revenues or the growth of our business. If we fail to grow revenues or to achieve profitability while our operating costs increase, our business, financial condition, results of operations and growth prospects will be materially, adversely affected.

We are 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; and challenges relating to identified material weaknesses in internal control.

We have a history of net losses, and we expect to continue to incur losses for the foreseeable future. If we ever achieve profitability, we may not be able to sustain it.

We have incurred losses from operations since our inception and expect to continue to incur losses from operations for the foreseeable future. We reported losses from operations of $90.9 million and $11.6 million for the years ended December 31, 2021 and 2020, respectively and $63.9 million for the nine months ended September 30, 2022. As a result of these losses, as of September 30, 2022, we had an accumulated deficit of $192.3 million. We expect to continue to incur significant sales and marketing, research and development, regulatory and other expenses as we grow our business. In addition, we expect our general and administrative expenses to increase due to the additional costs associated with being a public company. The net losses that we incur may fluctuate significantly from period to period. We will need to generate significant additional revenue in order to achieve and sustain profitability. Even if we achieve profitability, we cannot be sure that we will remain profitable for any substantial period of time.

We will need additional financing to execute our business plan and fund operations, which additional financing may not be available on reasonable terms or at all.

We believe that current working capital will be sufficient to continue our business for at least the next twelve months. Should our costs and expenses prove to be greater than we currently anticipate, or should we change our current business plan in a manner that will increase or accelerate our anticipated costs and expenses, such as through the acquisition of new products, the depletion of our working

capital could be accelerated. Although we believe that our existing cash will be sufficient to meet our working capital and capital expenditure needs for the next 12 months, we may need to raise additional capital to expand the commercialization of our products, fund our operations and further our research and development activities.

We may pursue sources of additional capital through various financing transactions or arrangements, including joint venturing of projects, debt financing, equity financing, or other means. We may not be successful in identifying suitable financing transactions in the time period required or at all, and we may not obtain the capital we require by other means.

Our ability to obtain financing, if and when necessary, may be impaired by such factors as the capital markets and our limited operating history.

Any additional capital raised through the sale of equity may dilute the ownership percentage of our stockholders. Raising any such capital could also result in a decrease in the fair market value of our equity securities because our assets would be owned by a larger pool of outstanding equity. The terms of securities we issue in future capital transactions may be more favorable to our new investors, and may include preferences, superior voting rights and the issuance of other derivative securities, and issuances of incentive awards under equity employee incentive plans, which may have a further dilutive effect.

We may incur substantial costs in pursuing future capital financing, including investment banking fees, legal fees, accounting fees, securities law compliance fees, printing and distribution expenses and other costs. We may also be required to recognize non-cash expenses in connection with certain securities we may issue, which may adversely impact our financial condition.

We may be unable to develop new products, applications, and end markets for our products.

Our future success will depend in part on our ability to generate sales of our products as well as generating development revenue. Current and potential customers may have substantial investment in, and know-how related to our technologies. Customers may be reluctant to change from incumbent suppliers or cease using their own solutions, or our products may miss the design and procurement cycles of our customers. Many target markets have historically been slow to adopt new technologies. These markets often require long testing and qualification periods or lengthy government approval processes before admitting new suppliers or adopting new technologies.

Introduction of new products and product enhancements will require that we effectively transfer production processes from research and development to manufacturing and coordinate efforts with those suppliers to achieve increased production volume rapidly. If we are unable to implement this strategy to develop new applications and end markets for products or develop new products, the business, financial condition, results of operations and growth prospects could be materially adversely affected. In addition, any newly developed or enhanced products may not achieve market acceptance or may be rendered obsolete or less competitive by the introduction of new products by other companies.

Our research and marketing development activities and investments may not result in profitable, commercially viable or successfully produced and marketed products.

Although we, ourselves and through our investments, are 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 we have or will invest in, and consequently, on us.

Disruption in supply from our single source supplier of our holographic raw materials may cause a material adverse effect on our Holography-related products.

We purchase our holographic raw materials from a tier 1 German manufacturer, which is a single source supplier. Disruption in supply from this supplier for any number of factors may cause a material adverse effect on our Holography-related products.

Material weaknesses or significant deficiencies in our internal controls could materially and adversely affect our business, results of operations and financial condition.

Our management is responsible for establishing and maintaining effective internal control over financial reporting, as such term is defined in Securities Exchange Act Rule 13a-15(f). Our internal control over financial reporting is a process designed by and under the supervision of our management, including our Chief Executive Officer and Chief Financial Officer, and effected by our management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated

financial statements for external purposes in accordance with U.S. generally accepted accounting principles. As previously disclosed, our management, under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer, conducted an evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2021 and, based on this evaluation, concluded that internal control over financial reporting was not effective as of December 31, 2021, due to material weaknesses in internal control over financial reporting. As of September 30, 2022, such material weaknesses had not yet been fully remediated.

Remediation efforts place a significant burden on our management and add increased pressure on our financial reporting resources and processes (see “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in Part I, Item 2 of this Quarterly Report on Form 10-Q for more information regarding such remediation efforts). If we are unable to successfully remediate these material weaknesses in a timely manner, or if any additional material weaknesses in our internal control over disclosure or financial reporting are identified, the accuracy of our financial reporting and our ability to timely file with the SEC may be adversely impacted. In addition, if our remedial efforts are insufficient, or if additional material weaknesses or significant deficiencies in our internal controls occur in the future, we could be required to restate our financial statements, which could materially and adversely affect our business, results of operations and financial condition, restrict our ability to access the capital markets, require us to expend significant resources to correct the material weaknesses or deficiencies, subject us to regulatory investigations and penalties, harm our reputation, and cause a decline in investor confidence or otherwise cause a decline in our stock price.

Impairment of our goodwill or other intangible assets could materially and adversely affect our business, operating results, and financial condition.

Events or changes in circumstances, such as declines in our stock price or market capitalization, could affect the likelihood that we will be required to recognize an impairment charge. In particular, these or other adverse events or changes in circumstances may affect the estimated undiscounted future operating cash flows expected to be derived from our goodwill and intangible assets. We have recently experienced substantial declines in our stock price, and continued weakness or further declines in our stock price increase the likelihood that we may be required to recognize impairment charges. Any impairment charges could have a material adverse effect on our operating results and net asset value in the quarter in which we recognize the impairment charge. We cannot provide assurances that we will not in the future be required to recognize impairment charges.

We depend on our OEM customers and system integrators to incorporate our products into their systems.

Our revenues depend, in part, on our ability to maintain existing and secure new OEM customers. Our revenues also depend, in part, on the ability of our current and potential OEM customers and system integrators to incorporate our products into their systems, and to sell such systems successfully. Limited marketing resources, reluctance to invest in research and development and other factors affecting these OEM customers and third-party system integrators could have a substantial impact upon demand for our products, and in turn upon our revenues and financial results. If OEM customers or integrators are not able to adapt existing tools or develop new systems to take advantage of the features and benefits of our products or if they perceive us to be an actual or potential competitor, then the opportunities to expand our revenues and increase our margins may be severely limited or delayed. In addition, some of our OEM customers are developing their own competitive products. If they are successful, this may reduce our revenues from these customers.

Our revenues may be concentrated in a few customers, and if we lose any of these customers, or these customers do not pay us, our revenues could be materially adversely affected.

We rely on a few customers for a significant portion of our revenues. For the three and nine months ended September 30, 2022, revenue from one customer accounted for $2.0 million or 82% and $7.5 million or 86% respectively of total revenue.

We currently derive a significant portion of our revenue from contract services with a G10 central bank. We are developing a new security feature under a framework contract with this customer. There can be no assurance that this project will be successful, or that will result in long-term production revenue for this security feature.

Our agreements with various national governments and suppliers to such governments subject us to unique risks.

We must comply with, and are affected by, laws and regulations relating to the award, administration, and performance of various national government contracts. Awards received from such governments may be cancelled or lose funding. Such government contracting parties may require us to increase or decrease production of certain products sold to such governments due to changes in strategy, priorities or other reasons, which could impact production of other products or sales to other customers to meet the requirements of such governments. In addition, such governments routinely retain rights to intellectual property developed in connection with government contracts. Such governments could exercise these rights in certain circumstances in the future, which could have the effect of decreasing the benefit we are able to realize commercially from such intellectual property.

National government agencies routinely audit and investigate government contractors and can decrease or withhold certain payments when it deems systems subject to its review to be inadequate. Additionally, any costs found to be misclassified may be subject to repayment. If an audit or investigation uncovers improper or illegal activities, we may be subject to civil or criminal penalties and administrative sanctions, including reductions of the value of contracts, contract modifications or terminations, forfeiture of profits, suspension of payments, penalties, fines and suspension, or prohibition from doing business with such governments. In addition, we could suffer serious reputational harm if allegations of impropriety were made against it. Any such imposition of penalties, or the loss of such government contracts, could materially adversely affect our business, financial condition, results of operations and growth prospects

We are subject to governmental export and import controls that could subject us to liability or impair our ability to compete in international markets.

The U.S. and various foreign governments have imposed controls, export license requirements and restrictions on the import or export of certain products, technologies, and software. We must export our products in compliance with U.S. export controls and we may not always be successful in obtaining necessary export licenses. Our failure to obtain required import or export approval for our products or limitations on our ability to export or sell our products imposed by these laws may harm our international and domestic revenues. Noncompliance with these laws could have negative consequences, including government investigations, penalties and reputational harm.

Changes in our products or changes in export, import and economic sanctions laws and regulations may delay our introduction of new products in international markets, prevent our customers from deploying our products internationally or, in some cases, prevent the export or import of our products to or from certain countries altogether. In addition to the tariffs imposed by the U.S. Government on certain items imported from China, it is possible that additional sanctions or restrictions may be imposed by the United States on items imported into the United States from China. Similarly, in addition to the tariffs imposed by China on certain items imported from the United States, it is possible that additional sanctions or restrictions may be imposed by China on items imported into China from the United States. Any such measures could further adversely affect our ability to sell our products to existing or potential customers and harm our ability to compete internationally and grow our business. In addition, generally, tariffs may materially increase the cost of our raw materials and finished goods, may negatively impact our margins as we may not be able to pass on the additional cost through increasing the prices of our products, and may cause the contraction of certain industries, including the Industrial market. Any change in export or import regulations or legislation, shift or change in enforcement, or change in the countries, persons or technologies targeted by these regulations, could result in decreased use of our products by, or in our decreased ability to export or sell our products to, existing or potential customers with international operations. In such event, our business, financial condition, results of operations and growth prospects could be materially adversely affected.

We may experience delays in providing sufficient product for future testing of our products due to ongoing supply chain limitations.

Due to current supply chain disruptions, our contract manufacturing organizations may experience an inability to manufacture and produce sufficient quantities of our products as we progress through our regulatory testing and/or approval. Should this happen, we may not be able to provide sufficient quantities of our products which could delay our ability to bring products to market. Such a delay would cause us to use more capital than currently planned which may have a material adverse effect on our projected timing of product launches and financials.

Change in laws, regulations or guidelines relating to our business plan and activities could adversely affect our business.

Our current and proposed operations 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 us to incur substantial costs associated with compliance or alter certain aspects of our business plan. In addition, violations of these laws, or allegations of such violations, could disrupt certain aspects of our business plan and result in a material adverse effect on certain aspects of our planned operations.

As an example, we 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® could become subject to evolving regulation by governmental authorities as the metaAIR® market evolves further.

If we are unable to make acquisitions, or successfully integrate them into our business, our results of operations and financial condition could be adversely affected.

We have completed a number of acquisitions during our operating history. We have spent and may continue to spend significant resources identifying and pursuing future acquisition opportunities. Acquisitions involve numerous risks including: (1) difficulties in integrating the operations, technologies and products of the acquired companies; (2) the diversion of management's attention from other

business concerns; and (3) the potential loss of key employees of the acquired companies. Failure to achieve the anticipated benefits of any prior and future acquisitions or to successfully integrate the operations of the acquired companies could have a material and adverse effect on our business, financial condition, and results of operations. Any future acquisitions could also result in potentially dilutive issuance of equity securities, acquisition or divestiture-related write-offs or the assumption of debt and contingent liabilities.

The regulatory approval process for our medical products in the United States and other countries around the world is time-consuming and complicated, and we may not obtain the approval required to market a product within the timeline required, or at all. Additionally, we may lose regulatory approval and/or our products may become subject to new and anticipated foreign regulations.

Our wireless sensing technology to enhance MRI and glucoWISE® non-invasive glucose® monitoring is under development. We have performed many pre-clinical experiments and we are preparing to perform clinical experiments as needed to continue the development of the related products. These products have not yet completed clinical trials/regulatory approval processes, and there can be no assurance that trials will be successful, or that approvals will be granted.

Development of medical devices and related operations are subject to extensive government regulation and oversight both in the United States and abroad, and our failure to comply with applicable requirements could harm our business.

Any medical devices that develop and related operations are subject to extensive regulation in the United States and elsewhere, including by the FDA and by the FDA's foreign counterparts. The FDA and foreign regulatory agencies regulate, among other things, with respect to medical devices: design, development, manufacturing, and release; laboratory, preclinical, and clinical testing; labeling, packaging, content, and language of instructions for use and storage; product safety and efficacy claims; establishment, registration, and device listing; marketing, sales, and distribution; pre-market clearances, approvals, and certifications; service operations; record keeping procedures; advertising and promotion; recalls and field safety corrective actions; post-market surveillance, including reporting of deaths or serious injuries and malfunctions that, if they were to recur, could lead to death or serious injury; post-market studies; and product import and export.

The regulations to which we are subject are complex and have tended to become more stringent over time. Regulatory changes could result in restrictions on our ability to carry on or expand our operations, higher than anticipated costs or lower than anticipated sales. The FDA and foreign counterparts enforce these regulatory requirements through, among other means, periodic unannounced inspections and periodic reviews of public marketing and promotion materials. We do not know whether we will be found compliant in connection with any future FDA or foreign counterparts' inspections or reviews. Failure to comply with applicable regulations could jeopardize our ability to sell our medical devices and result in enforcement actions such as: warning letters; untitled letters; fines; injunctions; civil penalties; termination of distribution; recalls or seizures of products; delays in the introduction of products into the market; total or partial suspension of production; refusal to grant future clearances, approvals, or certifications; withdrawals or suspensions of current approvals or certifications, resulting in prohibitions on sales of our medical devices; and in the most serious cases, criminal penalties.

Legislative or regulatory reforms in the United States or other countries may make it more difficult and costly for us to obtain regulatory clearances, approvals, or certifications for our products or to manufacture, market, or distribute our products after clearance, approval, or certification is obtained.

From time to time, legislation is drafted and introduced in Congress that could significantly change the statutory provisions governing the regulation of medical devices. In addition, the FDA may change its clearance and approval policies, adopt additional regulations, or revise existing regulations, or take other actions, which may prevent or delay approval or clearance of our future products under development or impact our ability to modify our currently cleared products on a timely basis. The FDA's and other regulatory authorities' policies may change, and additional government regulations may be promulgated that could prevent, limit, or delay regulatory clearance or approval of our product candidates. We cannot predict the likelihood, nature, or extent of government regulation that may arise from future legislation or administrative action, either in the United States or abroad. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may lose any marketing approval that we may have obtained and we may not achieve or sustain profitability.

Healthcare policy changes, including recently enacted legislation reforming the U.S. healthcare system, could harm our business, financial condition, and results of operations.

In the United States, there have been, and continue to be, a number of legislative initiatives to contain healthcare costs. In March 2010, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Affordability Reconciliation Act (ACA) was enacted in the United States, which made a number of substantial changes in the way healthcare is financed by both governmental and private insurers. We expect additional state and federal healthcare policies and reform measures to be adopted in the future. Any of these could make it more difficult and costly for us to obtain regulatory clearances or approvals for our products or to manufacture,

market, or distribute our products after clearance or approval is obtained. Any such reforms could have a material adverse effect on our industry generally and on our customers. In addition, any healthcare reforms that expand the government's role in the U.S. healthcare industry may result in decreased sale of our products and lower reimbursement by payors for procedures using our products, any of which could affect demand for our products and/or result in additional pricing pressure, which in turn could impact our ability to successfully commercialize our products and could have an adverse material effect on our business, financial condition, and results of operations. Changes and reforms in the EU and other countries where we may decide to commercialize could have similar effects.

If coverage and reimbursement from third-party payors for procedures using our medical products significantly decline, physicians, hospitals, and other healthcare providers may be reluctant to use our products and our sales may decline.

In the United States, healthcare providers who purchase our medical products generally rely on third-party payors, including Medicare, Medicaid, and private health insurance plans, to pay for all or a portion of the cost of the medical products that we may commercialize upon regulatory approval or clearance. Any decline in the amount payors are willing to reimburse our medical products may make it difficult for customers to adopt our products and could create additional pricing pressure for us. We may be unable to sell our products on a profitable basis if third-party payors deny coverage or reduce their current levels of reimbursement.
To contain costs of new technologies, governmental healthcare programs and third-party payors are increasingly scrutinizing new and existing treatments by requiring extensive evidence of favorable clinical outcomes. Physicians, hospitals, and other healthcare providers may not purchase our products if they do not receive satisfactory reimbursement from these third-party payors for the cost of using our products. If third-party payors issue non-coverage policies or if our customers are not reimbursed at adequate levels, this could adversely affect sales of our products. Outside of the United States, reimbursement systems vary significantly by country. The marketability of our products may suffer if government and commercial third-party payors fail to provide adequate coverage and reimbursement. Even if favorable coverage and reimbursement status is attained, less favorable coverage policies and reimbursement rates may be implemented in the future.

If we or our contractors fail to comply with healthcare and other governmental regulations, we could face substantial fines and penalties and our business, results of operations and financial condition could be adversely affected.

We are subject to certain federal, state, and foreign fraud and abuse laws, health information privacy and security laws, and transparency laws regarding payments and other transfers of value made to physicians and other healthcare professionals that could subject us to substantial penalties. Additionally, any challenge to, or investigation into, our practices under these laws could cause adverse publicity and be costly to respond to, and thus could harm our business. Our arrangements with physicians, hospitals and medical centers could expose us to broadly applicable fraud and abuse laws and other laws and regulations that may restrict the financial arrangements and relationships through which we may market, sell, and distribute our medical products after we receive the applicable marketing authorization. Our employees, consultants, and commercial partners may engage in misconduct or other improper activities, including non-compliance with regulatory standards and requirements. Federal and state healthcare laws and regulations that may affect our ability to conduct business, include, without limitation:

- FDA, Department of Justice, and other government authority prohibitions against the advertisement, promotion, and labeling of our products for off-label uses, or uses outside the specific indications approved by the FDA;
- the federal Anti-Kickback Statute, which broadly prohibits, among other things, any person from knowingly and willfully offering, soliciting, receiving, or providing remuneration, directly or indirectly, in exchange for or to induce either the referral of an individual for, or the purchase, order, or recommendation of, any good or service for which payment may be made under federal healthcare programs, such as Medicare or Medicaid. A person or entity does not need to have actual knowledge of the statute or specific intent to violate it to have committed a violation;
- the federal False Claims Act, which prohibits, among other things, individuals or entities from knowingly presenting, or causing to be presented, false claims, or knowingly using false statements, to obtain payment from the federal government. These laws have been interpreted to apply to arrangements between medical device manufacturers, on the one hand, and prescribers, purchasers, and other healthcare-related professionals on the other. They can apply to manufacturers who provide inaccurate information on coverage, coding, and reimbursement of their products to persons who bill third-party payors. In addition, medical device companies have been prosecuted or faced civil and criminal liability under these laws for a variety of alleged promotional and marketing activities, including violations of the federal Anti-Kickback Statute and engaging in off-label promotion that caused claims to be submitted for non-covered off-label uses. Private individuals can bring False Claims Act "qui tam" actions, on behalf of the government and such individuals, commonly known as "whistleblowers," may share in amounts paid by the entity to the government in fines or settlement;
- HIPAA, which among other things, also created criminal liability for knowingly and willfully falsifying or concealing a material fact or making a materially false statement in connection with the delivery of or payment for healthcare benefits, items or services. Similar to the federal Anti-Kickback Statute, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation;

- federal criminal laws that prohibit executing a scheme to defraud any healthcare benefit program or making, or causing to be made, false statements relating to healthcare matters;
- the federal Civil Monetary Penalties Law, which prohibits, among other things, offering or transferring remuneration to a federal healthcare beneficiary that a person knows or should know is likely to influence the beneficiary's decision to order or receive items or services reimbursable by the government from a particular provider or supplier;
- the FCPA and other local anti-corruption laws that apply to our international activities;
- the federal Physician Payment Sunshine Act (Open Payments) and its implementing regulations, which require applicable manufacturers of covered drugs, devices, biologicals and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program (with certain exceptions) to report annually to the Centers for Medicare & Medicaid Services (CMS) information related to payments or other transfers of value made to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors), non-physician healthcare professionals (such as physician assistants and nurse practitioners, among others) and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members;
- analogous state law equivalents of each of the above federal laws, such as anti-kickback and false claims laws which may apply to items or services reimbursed by any third-party payor, including commercial insurers or patients; state laws that require medical device companies to comply with the industry's voluntary compliance guidelines and the applicable compliance guidance promulgated by the federal government or otherwise restrict payments that may be made to healthcare providers and other potential referral sources; state laws that require medical device manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers or marketing expenditures; consumer protection and unfair competition laws, which broadly regulate marketplace activities and activities that potentially harm customers, state laws, governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and may not have the same effect, thus complicating compliance efforts; and state laws related to insurance fraud in the case of claims involving private insurers.

The scope and enforcement of each of the laws applicable to our business and products are uncertain and subject to rapid change in the current environment of healthcare reform. The U.S. Department of Justice has increased its scrutiny of interactions between manufacturers and healthcare providers, which has led to a number of investigations, prosecutions, convictions, and settlements in the healthcare industry. Responding to a government investigation is time and resource intensive and may cause harm to our business and reputation even if we are able to successfully defend against it. Any action brought against us for violations of these laws or regulations, even successfully defended, could cause us to incur significant legal expenses and divert our management's attention from the operation of our business. We may be subject to private "qui tam" actions brought by individual whistleblowers on behalf of the federal or state governments.

If our operations are found to be in violation of any of the federal, state and foreign laws described above or any other current or future fraud and abuse or other healthcare laws and regulations that apply to us, we may be subject to penalties, including significant criminal, civil, and administrative penalties, damages, fines, imprisonment for individuals, exclusion from participation in government programs, such as Medicare and Medicaid, and we could be required to curtail or cease our operations. Any of the foregoing consequences could seriously harm our business and our financial results.

If we fail to obtain and maintain necessary regulatory clearances, approvals, or certifications for our products, or if clearances, approvals or certifications for future products and indications are delayed or not issued, our commercial operations would be harmed.

Our medical products are subject to extensive regulation by the FDA in the United States and by regulatory agencies in other countries outside of the United States. Government regulations specific to medical devices are wide ranging and govern, among other things:

- product design, development, and manufacture;
- laboratory, preclinical and clinical testing, labeling, packaging, storage, and distribution;
- premarketing clearance, approval, or certification;
- record keeping;
- product marketing, promotion and advertising, sales, and distribution; and
- post marketing surveillance, including reporting of deaths or serious injuries and recalls and correction and removals.

Before a new medical device, or a new intended use for an existing product, can be marketed in the United States, a company must first submit and receive 510(k) clearance pursuant to Section 510(k) of the Food, Drug and Cosmetic Act (FDCA), approval of a PMA by the FDA, or grant of a de novo classification request from the FDA, unless an exemption applies.

In the 510(k) clearance process, the FDA must determine that a proposed device is "substantially equivalent" to a device legally on the market, known as a "predicate" device, in order to clear the proposed device for marketing. To be "substantially equivalent," the proposed device must have the same intended use as the predicate device, and either have the same technological characteristics as the predicate device or have different technological characteristics and not raise different questions of safety or effectiveness than the predicate device. Clinical data is sometimes required to support substantial equivalence. In the PMA approval process, the FDA must determine that a proposed device is safe and effective for its intended use based on extensive data, including technical, pre-clinical, clinical trial, manufacturing, and labeling data. The PMA process is typically required for devices for which the 510(k) process cannot be used and that are deemed to pose the greatest risk, such as life sustaining, life supporting, or implantable devices. In the de novo classification process, a manufacturer whose novel device under the FDCA would otherwise be automatically classified as Class III and require the submission and approval of a PMA prior to marketing is able to request down-classification of the device to Class I or Class II on the basis that the device presents a low or moderate risk. If the FDA grants the de novo classification request, the applicant will receive authorization to market the device. This device type may be used subsequently as a predicate device for future 510(k) submissions. Modifications to products that are approved through a PMA application generally need prior FDA approval of a PMA supplement. Similarly, some modifications made to products cleared through a 510(k) submission may require a new 510(k) clearance, or such modification may put the device into Class III and require PMA approval or the grant of a de novo classification request.

The PMA approval, 510(k) clearance, and de novo classification processes can be expensive, lengthy, and uncertain. Any delay or failure to obtain necessary regulatory approvals, clearances or certifications would have a material adverse effect on our business, financial condition, and results of operations.

The FDA and foreign bodies can delay, limit, or deny clearance, approval, or certification of a device for many reasons, including:

- our inability to demonstrate to the satisfaction of the FDA or the applicable regulatory entity or notified body that our products are safe or effective for their intended uses or substantially equivalent to a predicate device;
- the disagreement of the FDA or the applicable foreign body with the design, conduct or implementation of our clinical trials or investigations or the analyses or interpretation of data from pre-clinical studies or clinical trials or investigations;
- serious and unexpected adverse device effects experienced by participants in our clinical trials or investigations;
- the data from our pre-clinical studies and clinical trials or investigations may be insufficient to support clearance, de novo classification, approval, or certification, where required;
- our inability to demonstrate that the clinical and other benefits of the device outweigh the risks;
- the applicable regulatory authority or notified body may identify significant deficiencies in our manufacturing processes, facilities, or analytical methods or those of our third-party contract manufacturers;
- the potential for approval policies or regulations of the FDA or applicable foreign regulatory bodies to change significantly in a manner rendering our clinical data or regulatory submissions insufficient for clearance, de novo classification, approval, or certification; and
- the FDA or foreign regulatory authorities or bodies may audit our clinical trial or investigation data and conclude that the data is not sufficiently reliable to support approval, clearance, or certification.

Upon commercialization of any medical devices for which we receive FDA clearance or approval, we are required to investigate all product complaints we receive, and timely file reports with the FDA, including MDRs that require that we report to regulatory authorities if our products may have caused or contributed to a death or serious injury or malfunctioned in a way that would likely cause or contribute to a death or serious injury if the malfunction were to recur. If these reports are not submitted in a timely manner, regulators may impose sanctions and we may be subject to product liability or regulatory enforcement actions, including warning letters, untitled letters, fines, civil penalties, recalls, seizures, operating restrictions, denial of requests for 510(k) clearance or premarket approval of new products, new intended uses or modifications to existing products, withdrawal of current 510(k) clearances or premarket approvals, and narrowing of approved or cleared product labeling, all of which could harm our business. In addition, the FDA may provide notice of and conduct additional inspections, such as "for cause" inspections, of our business, sites, and facilities as part of its review process. Similar requirements may apply in foreign countries.

If we initiate a correction or removal action for our products to reduce a significant risk to health posed by our products, we would be required to submit a publicly available correction and removal report to the FDA and, in many cases, similar reports to other regulatory agencies. This report could be classified by the FDA as a device recall which could lead to increased scrutiny from the FDA, other

international regulatory agencies, and our customers regarding the quality and safety of our products. Furthermore, the submission of these reports could be used by competitors against us and cause physicians to delay or cancel orders, which could harm our reputation.

The FDA and the Federal Trade Commission (FTC) also regulate the advertising, promotion, and labeling of our products to ensure that the claims we make are consistent with our regulatory authorizations, that there is adequate and reasonable scientific data to substantiate the claims, and that our promotional labeling and advertising is neither false nor misleading in any respect. If the FDA or FTC determines that any of our advertising or promotional claims are misleading, not substantiated, or not permissible, we may be subject to enforcement actions, including adverse publicity and/or warning letters, and we may be required to revise our promotional claims and make other corrections or restitutions.

The FDA, state authorities, and foreign counterparts have broad investigation and enforcement powers. Our failure to comply with applicable regulatory requirements could result in enforcement action by the FDA, state agencies, or foreign counterparts, which may include any of the following sanctions:

- adverse publicity, warning letters, fines, injunctions, consent decrees, and civil penalties;
- repair, replacement, refunds, recalls, termination of distribution, administrative detention, or seizure of our products;
- operating restrictions, partial suspension, or total shutdown of production; lawsuit
- denial of our requests for marketing authorizations or certifications for new products, new intended uses, or modifications to existing products;
- withdrawal of marketing authorizations or certifications that have already been granted; and
- criminal prosecution.

If any of these events were to occur, our business and financial condition could be harmed. In addition, the FDA's and other regulatory authorities' policies may change and additional government regulations may be enacted that could prevent, limit, or delay regulatory approval of our products. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may lose any marketing approval or certification that we may have obtained and we may not achieve or sustain profitability, which would adversely affect our business, financial condition, and results of operations.

We are exposed to risks that our employees, consultants, or other commercial partners may engage in misconduct or other improper activities, including non-compliance with regulatory standards and requirements.

We are exposed to the risk that our employees, consultants, and other commercial partners and business associates may engage in fraudulent or illegal activity. Misconduct by these parties could include intentional, reckless, or negligent conduct or other unauthorized activities that violate the regulations of the FDA and other regulators (both domestic and foreign), including those laws requiring the reporting of true, complete, and accurate information to such regulators, manufacturing standards, healthcare fraud and abuse laws, and regulations in the United States and internationally or laws that require the true, complete, and accurate reporting of financial information or data. In particular, sales, marketing, and business arrangements in the healthcare industry, including the sale of medical devices, are subject to extensive laws and regulations intended to prevent fraud, misconduct, kickbacks, self-dealing, and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs, and other business arrangements. It is not always possible to identify and deter misconduct by our employees, consultants, and other third parties, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to comply with these laws or regulations. If any such actions are instituted against us and we are not successful in defending ourselves or asserting our rights, those actions could result in the imposition of significant fines or other sanctions, including the imposition of civil, criminal, and administrative penalties, damages, monetary fines, possible exclusion from participation in Medicare, Medicaid, and other federal healthcare programs, contractual damages, reputational harm, diminished profits and future earnings, and curtailment of operations, any of which could adversely affect our business, financial condition and results of operations. Whether or not we are successful in defending against such actions or investigations, we could incur substantial costs, including legal fees and reputational harm, and divert the attention of management in defending ourselves against any of these claims or investigations.

Compliance with environmental laws and regulations could be expensive, and failure to comply with these laws and regulations could subject us to significant liability.

Our research and development and manufacturing operations involve the use of some hazardous substances and are subject to a variety of federal, state, local, and foreign environmental laws and regulations relating to the storage, use, discharge, disposal, remediation of, and human exposure to, hazardous substances and the sale, labeling, collection, recycling, treatment, and disposal of products containing

hazardous substances. Liability under environmental laws and regulations can be joint and several and without regard to fault or negligence. Compliance with environmental laws and regulations may be expensive and noncompliance could result in substantial liabilities, fines and penalties, personal injury and third-party property damage claims and substantial investigation and remediation costs. Environmental laws and regulations could become more stringent over time, imposing greater compliance costs, and increasing risks and penalties associated with violations. We cannot assure you that violations of these laws and regulations will not occur in the future or have not occurred in the past as a result of human error, accidents, equipment failure or other causes. The expense associated with environmental regulation and remediation could harm our financial condition and operating results.

Our insurance coverage strategy may not be adequate to protect us from all business risks.

We will require insurance coverage for numerous risks related to our business. Although our management believes that the events and amounts of liability covered by our insurance policies will be reasonable, taking into account the risks relevant to our 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 we may become subject. If insurance coverage is unavailable or insufficient to cover any such claims, our financial resources, results of operations and prospects could be adversely affected.

The risk of loss of our intellectual property, trade secrets or other sensitive business or customer confidential information or disruption of operations due to cyberattacks or data breaches could negatively impact our financial results.

Cyberattacks or data breaches could compromise confidential, business-critical information, cause disruptions in our operations, expose us to potential litigation, or harm our reputation. We have important assets, including intellectual property, trade secrets, and other sensitive, business-critical and/or confidential information which may be vulnerable to such incidents. While we are in the process of implementing a cybersecurity program that is continually reviewed, maintained, and upgraded, no assurance can be made that we are invulnerable to cyberattacks and data breaches which, if significant, could negatively impact our business and financial results.

Cybersecurity breaches and information technology failures could harm our business by increasing our costs and negatively impacting our business operations.

We rely extensively on information technology systems, including internet sites, computer software, data hosting facilities and other hardware and platforms, some of which are hosted by third parties, to assist in conducting our business. Our information technology systems, as well as those of third parties we use in our business operations, may be vulnerable to a variety of evolving cybersecurity risks, such as those involving unauthorized access or control, malicious software, data privacy breaches by employees or others with authorized access, cyber or phishing-attacks, ransomware and other security issues. Moreover, cybersecurity threat actors, whether internal or external, are becoming more sophisticated and coordinated in their attempts to access companies' information technology systems and data, including the information technology systems of cloud providers and other third parties with whom we conduct our business.

Changes in laws or regulations relating to privacy, information security and data protection, or any actual or perceived failure by us to comply with such laws and regulations or any other obligations, could adversely affect our business.

Personal privacy, information security and data protection are significant issues worldwide. The regulatory framework governing the collection, use, and other processing of personal data and other information is rapidly evolving. The United States federal and various state and foreign governments have adopted or proposed requirements regarding the collection, distribution, use, security and storage of personally identifiable information and other data relating to individuals, and federal and state consumer protection laws are being applied to enforce regulations related to the online collection, use and dissemination of data.

The costs of compliance with and other burdens imposed by laws, regulations, standards and other actual or asserted obligations relating to privacy, data protection and information security may be substantial, and they may require us to modify our data processing practices and policies. Any actual or alleged noncompliance with any of these laws, regulations, standards, and other actual or asserted obligations may lead to claims and proceedings by governmental actors and private parties, and significant fines, penalties or liabilities.

The effects of health pandemics, such as the ongoing COVID-19 pandemic, have had, and could in the future have, an adverse impact on our business, financial condition and results of operations.

Our business and operations have been and could in the future be adversely affected by health pandemics, such as the ongoing COVID-19 pandemic. The ongoing COVID-19 pandemic and efforts to control its spread have curtailed the movement of people, goods and services worldwide, including in the regions in which we and our customers, suppliers and manufacturers operate, and are significantly impacting economic activity and financial markets.

Our operations are subject to a range of external factors related to the ongoing COVID-19 pandemic that are not within our control. We have taken precautionary measures intended to minimize the risk of the spread of the virus to our employees, and the communities in

which we operate. A wide range of governmental restrictions were previously, and may again be, imposed on our employees, customers, suppliers and manufacturers' physical movement to limit the spread of COVID-19. There can be no assurance that precautionary measures, whether adopted by us or imposed by others, will be effective, and such measures could negatively affect our sales, marketing and customer service efforts, delay and lengthen our sales cycles, decrease our employees', suppliers' and manufacturers' productivity, reduce our customers' spending on our products, or create operational or other challenges, any of which could harm our business, results of operations and financial condition.

The economic uncertainty caused by the ongoing COVID-19 pandemic has made and may continue to make it difficult for us to forecast revenue and operating results and to make decisions regarding operational cost structures and investments. We have committed, and plans to continue to commit, resources to grow our business, including to expand our employee base and technology development and secure alternative suppliers and manufacturers, and such investments may not yield anticipated returns, particularly if worldwide business activity continues to be impacted by the ongoing COVID-19 pandemic. The duration and extent of the impact from the ongoing COVID-19 pandemic depend on future developments that cannot be accurately predicted at this time, and if we are not able to respond to and manage the impact of such events effectively, our business may be harmed.

We are subject to taxation-related risks in multiple jurisdictions, and the adoption and interpretation of new tax legislation, tax regulations, tax rulings, or exposure to additional tax liabilities could materially affect our business, financial condition and results of operations.

We are a U.S. parented multinational group subject to income and other taxes in Canada, the United States, the United Kingdom, and other jurisdictions in which we do business. As a result, our provision for (benefit from) income taxes is derived from a combination of applicable tax rates in the various jurisdictions in which we operate. Significant judgment is required in determining our global provision for (benefit from) income taxes, value added and other similar taxes, deferred tax assets or liabilities and in evaluating our tax positions on a worldwide basis. It is possible that our tax positions may be challenged by tax authorities, which may have a significant impact on our global provision for (benefit from) income taxes. If such a challenge were to be resolved in a manner adverse to us, it could have a material adverse effect on our business, financial condition and results of operations.

Recent or future changes to U.S., Canadian, United Kingdom and other non-U.S. tax laws could impact the tax treatment of our earnings. We generally conduct our international operations through wholly owned subsidiaries and report our taxable income in various jurisdictions worldwide based upon our business operations in those jurisdictions. The intercompany relationships between our legal entities are subject to complex transfer pricing regulations administered by taxing authorities in various jurisdictions. Although we believe we are compliant with applicable transfer pricing and other tax laws in the United States, Canada, the United Kingdom and other relevant countries, due to changes in such laws and rules, we may have to modify our international structure in the future, which will incur costs and may adversely affect our business, financial condition and results of operations.

If U.S., Canadian, United Kingdom or other non-U.S. tax laws change further, if our current or future structures and arrangements are challenged by a taxing authority, or if we are unable to appropriately adapt the manner in which we operate our business, we may have to undertake further costly modifications to our international structure, which may cause our tax liabilities to increase and adversely affect our business, financial condition and results of operations.

Our ability to use our deferred tax assets to offset future taxable income is subject to certain limitations, which may have a material impact on our business, financial condition or results of operations.

As of September 30, 2022, a valuation allowance has been recorded against our deferred tax assets that are more likely than not to be realized in the U.S. federal and state tax jurisdictions. We assess the available positive and negative evidence to estimate if sufficient future taxable income will be generated to utilize the existing deferred tax assets. Certain of our deferred tax assets may expire unutilized or underutilized, which could prevent us from offsetting future taxable income. We continue to assess the realizability of our deferred tax assets in the future. Future adjustments in our valuation allowance may be required, which may have a material impact on our quarterly and annual operating results.

Risks Related to Intellectual Property

If we fail to protect and enforce our intellectual property rights and our confidential information, our business could be adversely affected.

We rely on a combination of nondisclosure agreements and other contractual provisions and patent, trade secret and copyright laws to protect our technologies, products, product development and manufacturing activities from unauthorized use by third parties. Our patents do not cover all of our technologies, systems, products and product components and our competitors or others may design around our patented technologies. We cannot guarantee that these mechanisms will adequately protect our technology and intellectual property, nor can we guarantee that a court will enforce our intellectual property rights.

In addition, the laws and enforcement regimes of certain countries do not protect our technology and intellectual property to the same extent as do the laws and enforcement regimes of the U.S. In certain jurisdictions, we may be unable to protect our technology and intellectual property adequately against unauthorized use, which could adversely affect our business.

We may become involved in material legal proceedings in the future to enforce or protect our intellectual property rights, which could harm our business.

From time to time, we may identify products that we believe infringes on our patents and may have to initiate litigation to enforce our patent rights against those products. Litigation stemming from such disputes could harm our ability to gain new customers, who may postpone licensing decisions pending the outcome of the litigation or who may, as a result of such litigation, choose not to adopt our technologies. Such litigation may also harm our business relationships with existing customers, who may, because of such litigation, cease making royalty or other payments to us or challenge the validity and enforceability of our patents or the scope of our related agreements.

In addition, the costs associated with legal proceedings are typically high, relatively unpredictable and not completely within our control. These costs may be materially higher than expected, which could adversely impair our working capital, affect our operating results and lead to volatility in the price of our common stock. Whether or not determined in our favor or ultimately settled, litigation would divert managerial, technical, legal and financial resources from our business operations. Furthermore, an adverse decision in any of these legal actions could result in a loss of our proprietary rights, subject us to significant liabilities, require us to seek licenses from others, limit the value of our technology or otherwise negatively impact the price of our common stock, business and financial position, results of operations and cash flows.

Even if we prevail in a legal action, significant contingencies may exist to the settlement and final resolution, including the scope of the liability of each party, our ability to enforce judgments against the parties, the ability and willingness of the parties to make any payments owed or agreed upon, and the dismissal of the legal action by the relevant court, none of which are completely within our control. Parties that may have financial obligations to us could be insolvent or decide to alter their business activities or corporate structure, which could affect our ability to collect royalties from such parties.

Our technologies may infringe on the intellectual property rights of others, which could lead to costly disputes or disruptions.

Various business segments in which we operate are characterized by frequent allegations of intellectual property infringement. Any allegation of infringement could be time consuming and expensive to defend or resolve, result in substantial diversion of management resources, cause suspension of operations or force us to enter into royalty, license, or other agreements rather than dispute the merits of such allegation. Furthermore, third parties making such claims may be able to obtain injunctive or other equitable relief that could block us the ability to further develop or commercialize some or all of our technologies, and the ability of our customers to develop or commercialize their products incorporating our technologies, in the U.S. and abroad. If patent holders or other holders of intellectual property initiate legal proceedings, we may be forced into protracted and costly litigation. We may not be successful in defending such litigation and may not be able to procure any required royalty or license agreements on acceptable terms or at all.

Risk Related to Industry Adoption of our Products

We cannot provide assurance that markets will accept our various products at the expected market penetration rates, which may adversely affect our business operations and financial position.

We launched our first product, a laser glare protection eyewear named metaAIR®, in March 2019, with a primary focus on the aviation market. We have co-developed this product with Airbus through a strategic partnership. Airbus further extended its support by introducing us to Satair, an Airbus-owned company, which became the global distribution partner for metaAIR® to the aviation market. Since 2016, Airbus and Satair have invested a total of $2,000,000 for the product development and exclusive distribution rights to metaAIR®.

Despite our close collaboration with the Airbus Group and future plans for marketing and sales expansion, 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 Holography laser glare protection related products and our financial position.

Slower than forecasted market acceptance of Lithography related products, partially in the automotive market may have a material adverse effect on our financial position.

Our NANOWEB® products have not yet reached the required manufacturing scale to enable us to address the volume demands of a number of our target vertical markets. Our first pilot scale roll-to-roll line is being optimized and is expected to be ready for low volume production during the second half of fiscal year 2022. Broader sales and production are expected to be launched in two to three years'

time after successful completion of automotive and other vertical market product qualification and product introductions. We believe that the automotive market is a strategic high growth opportunity, however despite our close collaboration with 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 Lithography de-icing/de-fogging, transparent antenna and other related products and our financial position.

If products incorporating our technologies are used in defective products, we may be subject to product liability or other claims.

If our technology is used in defective or malfunctioning products, we could be sued for damages, especially if the defect or malfunction causes physical harm to people. While we will endeavor to carry product liability insurance, contractually limit our liability and obtain indemnities from our customers, there can be no assurance that we will be able to obtain insurance at satisfactory rates or in adequate amounts or that any insurance and customer indemnities will be adequate to defend against or satisfy any claims made against us. The costs associated with legal proceedings are typically high, relatively unpredictable and not completely within our control. Even if we consider any such claim to be without merit, significant contingencies may exist, similar to those summarized in the above risk factor concerning intellectual property litigation, which could lead us to settle the claim rather than incur the cost of defense and the possibility of an adverse judgment. Product liability claims in the future, regardless of their ultimate outcome, could have a material adverse effect on our business, financial condition and reputation, and on our ability to attract and retain customers.

We participate in markets that are subject to rapid technological change and require significant research and development expenses to develop and maintain products that can achieve market acceptance.

We operate in a rapidly evolving industry subject to significant technological change and new product introductions and enhancements. Our future performance depends in part on the successful development, introduction and market acceptance of new and enhanced products that address these changes and current and potential customer requirements. To the extent customers defer or cancel orders for existing products due to a slowdown in demand or in the expectation of a new product release, or if there is any delay in development or introduction of our new products or enhancements of our products, business and financial conditions, results of operations, and growth prospects would be materially adversely affected. We also may not be able to develop the underlying core technologies necessary to create new products and enhancements, or to license these technologies from third parties.

Risks Related to Facilities and Human Resources

We have ongoing environmental costs, which could have a material adverse effect on our financial position or results of operations.

Certain of our operations and assets are subject to extensive environmental, health and safety regulations, including laws and regulations related to waste disposal and remediation of contaminated sites. The nature of our operations and products, including the raw materials we handle, exposes us to the risk of liabilities, obligations or claims under these laws and regulations due to the production, storage, use, transportation and sale of materials that can adversely impact the environment or cause personal injury, including, in the case of chemicals, unintentional releases into the environment. Environmental laws may have a significant effect on the costs of use, transportation and storage of raw materials and finished products, as well as the costs of storage, transportation and disposal of wastes.

The ultimate costs and timing of environmental liabilities are difficult to predict. Liabilities under environmental laws relating to contaminated sites can be imposed retroactively and on a joint and several basis. One liable party could be held responsible for all costs at a site, regardless of fault, percentage of contribution to the site or the legality of the original disposal. We could incur significant costs, including clean-up costs, natural resource damages, civil or criminal fines and sanctions and third-party lawsuits claiming, for example, personal injury and/or property damage, as a result of past or future violations of, or liabilities under, environmental or other laws.

In addition, future events, such as changes to or more rigorous enforcement of environmental laws, could require us to make additional expenditures, modify or curtail our operations and/or install additional pollution control equipment. It is possible that regulatory agencies may enact new or more stringent clean-up standards for chemicals of concern, including chlorinated organic products that we manufacture. This could lead to expenditures for environmental remediation in the future that are additional to existing estimates.

We may incur claims relating to our use, manufacture, handling, storage or disposal of hazardous materials.

Our research and development and manufacturing processes require the transportation, storage and use of hazardous materials, including chemicals, and may result in the generation of hazardous waste. National and local laws and regulations in many of the jurisdictions in which we operate impose substantial potential liability for the improper use, manufacture, handling, storage, transportation and disposal of hazardous materials as well as for land contamination, and, in some cases, this liability may continue over long periods of time. Despite our compliance efforts, we cannot eliminate the risk of industrial accidents that may lead to discharges or releases of hazardous materials and any resultant injury, property damage or environmental contamination from these materials. For example, real properties that we owned or used in the past or that we own or use now or in the future may contain detected or undetected contamination resulting

from our operations at those sites or the activities of prior owners or occupants. We may suffer from expenses, claims or liability which may fall outside of or exceed our insurance coverage.

Furthermore, changes to current environmental laws and regulations may impose further compliance requirements on us that may impair our research, development and production efforts as well as our other business activities. New and evolving regulatory requirements include producer responsibility frameworks and regulations related to addressing climate change or other emerging environmental areas. Increased environment, health and safety laws, regulations and enforcement could result in substantial costs and liabilities to us and could subject our use, manufacture, handling, storage, transportation, and disposal of hazardous materials to additional constraints. Consequently, compliance with these laws could result in capital expenditures as well as other costs and liabilities, thereby adversely affecting business, financial position and results of operations.

Our failure to comply with applicable laws and regulations material to our operations, such as export control, environmental and climate related laws and regulations, or the inability to timely obtain requisite approvals necessary for the conduct of our business, such as fab land and construction approvals, could harm our business and operational results or subject us to potential significant legal liability.

Because we engage in manufacturing activities in multiple jurisdictions and conduct business with our customers located worldwide, such activities are subject to a myriad of governmental regulations. Our failure to comply with any such laws or regulations, as amended from time to time, and our failure to comply with any information and document sharing requests from the relevant authorities in a timely manner could result in:

- significant penalties and legal liabilities, such as the denial of import or export permits or third party private lawsuits, criminal or administrative proceedings;
- the temporary or permanent suspension of production of the affected products;
- the temporary or permanent inability to procure or use certain production critical chemicals or materials;
- unfavorable alterations in our manufacturing, assembly and test processes;
- challenges from our customers that place us at a significant competitive disadvantage, such as loss of actual or potential sales contracts in case we are unable to satisfy the applicable legal standard or customer requirement;
- restrictions on our operations or sales;
- loss of tax benefits, including termination of current tax incentives, disqualification of tax credit application and repayment of the tax benefits that we are not entitled to; and
- damages to our goodwill and reputation.

Complying with applicable laws and regulations, such as environmental and climate related laws and regulations, could also require us, among other things, to do the following: (a) purchase, use or install remedial equipment; (b) implement remedial programs such as climate change mitigation programs; (c) modify our product designs and manufacturing processes, or incur other significant expenses such as obtaining renewable energy sources, renewable energy certificates or carbon credits, substitute raw materials or chemicals that may cost more or be less available for our operations.

Our inability to timely obtain approvals necessary for the conduct of our business could impair our operational and financial results. For example, if we are unable to timely obtain environmental related approvals needed to undertake the development and construction of a new fab or expansion project, then such inability may delay, limit, or increase the cost of our expansion plans that could also in turn adversely affect our business and operational results. In light of increased public interest in environmental issues, our operations and expansion plans may be adversely affected or delayed responding to public concern and social environmental pressures even if we comply with all applicable laws and regulations.

Delays in setting up facilities or receiving required permits could have an adverse effect on our financial position.

We are in the process of moving into a larger facility suitable to host the scale-up of production relating to Holography and Lithography. Lithography requires specific local government approvals 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 may have a material adverse effect on related products and consequently on our financial position.

We are highly dependent on our key personnel, and if we are not successful in attracting and retaining highly qualified personnel, we may not be able to successfully implement our business strategy.

Our ability to successfully manage and grow the business and to develop new products depends, in large part, on our ability to recruit and retain qualified employees, particularly highly skilled technical, sales, service, management, and key staff personnel. Competition for qualified resources is intense and other companies may have greater resources available to provide substantial inducements to offer more competitive compensation packages. If we are not successful in attracting and retaining highly qualified personnel, it could have a material adverse effect on our business, financial condition, and results of operations.

Our results of operations could be adversely affected by labor shortages, turnover, labor cost increases and inflation.

A number of factors may adversely affect the labor force available to us in one or more of our geographies, including high employment levels, increasing market wages and other compensation costs, federal unemployment subsidies, and other government regulations, which include laws and regulations related to workers' health and safety, wage and hour practices and immigration. These factors can also impact the cost of labor. Increased turnover rates within our employee base can lead to decreased efficiency and increased costs, such as increased overtime to meet demand and increased wage rates to attract and retain employees. An overall labor shortage or lack of skilled labor, increased turnover or labor inflation could have a material adverse effect on results of operations.

Certain directors and officers may be subject to conflicts of interest.

Certain of our directors and officers may 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 we intend 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 our 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 us 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 our best interests. However, in conflict-of-interest situations, our directors and officers may owe the same duty to another company and will need to balance their competing interests with their duties to us. Circumstances (including with respect to future corporate opportunities) may arise that may be resolved in a manner that is unfavorable to us.

Risks Related to our Oil and Gas Assets Held for Sale

We may be unable to pay dividends to holders of our Series A Preferred Stock.

Although we may still sell our O&G Assets, we are currently planning to declare a spin-off dividend to distribute beneficial ownership of the remaining O&G Assets to the holders of Series A Preferred Stock. However, if the combined company cannot effect such spin-off dividend, we may not be able to deliver the value of any remaining O&G Assets to the holders of Series A Preferred Stock.

We may not be able to successfully complete the anticipated O&G Asset dispositions on favorable terms or at all, which could adversely affect our financial condition and results of operations.

We are in the process of selling or spinning out the O&G Assets. Such dispositions may result in proceeds to Series A preferred shareholders in an amount less than they expect or less than our assessment of the value of the assets. We do not know if we will be able to successfully complete such disposition on favorable terms or at all. In addition, the sale of these assets involves risks and uncertainties, including disruption to other parts of our business, potential loss of customers or revenue, exposure to unanticipated liabilities or result in ongoing obligations and liabilities to us following any such divestiture.

For example, in connection with a disposition, we may enter into transition services agreements or other strategic relationships, which may result in additional expenses. In addition, in connection with a disposition, we may be required to make representations about the business and financial affairs of the business or assets. We may also be required to indemnify the purchasers to the extent that our representations turn out to be inaccurate or with respect to certain potential liabilities. These indemnification obligations may require us to pay money to the purchasers as satisfaction of their indemnity claims. It may also take longer than expected to fully realize the anticipated benefits of this transaction, and those benefits may ultimately be smaller than anticipated or may not be realized at all, which could adversely affect our business and operating results.

Since the Closing of the Merger, META has loaned its subsidiary, Next Bridge Hydrocarbons, Inc. ("Next Bridge"), an aggregate of $20 million excluding interest, for use in relation to drilling activity required to maintain compliance with the lease obligations associated with our O&G Assets. $15 million of this loan is collateralized by Mr. Greg McCabe's interest in the Orogrande Project as well as by his current shares of Meta common stock. If we spin-out the O&G Assets, we may owe federal and/or state income taxes but will not receive any cash to pay such taxes and therefore may need to increase the debt relating to the O&G Assets at the spin-out. If we sell or

spin-out the O&G Assets, there may be insufficient funds for us to be repaid on these debts. The O&G Assets may never be able to repay these debts to Meta and the collateral may also be insufficient.

Any of the foregoing could adversely affect our financial condition and results of operations.

Our prior and continuing investment in our oil and gas operations has been, and is, costly, and the potential development of unproven reserves is a very high-risk activity with many uncertainties that could adversely affect future production, if any, from our oil and natural gas properties. Any lack of discovery, delays, reductions or cancellations in development and producing activities could materially, adversely impact our operations and financial position.

The development of our unproven oil and gas reserves, if any, such as the Orogrande Project may in the future take a long period of time and may require higher levels of capital expenditures than anticipated. Delays in the development of any unproven reserves, increases in drilling and development costs (including expenses related to secondary and tertiary recovery techniques) of such reserves or decreases or continued volatility in commodity prices will reduce the future net revenues of the undeveloped, unproven reserves and may result in some projects becoming uneconomic.

The occurrence of operating hazards and risks associated with the oil and natural gas business could materially and adversely affect our financial condition and operations.

The oil and natural gas business involves a variety of operating hazards and risks such as well blowouts, pipe failures, casing collapse, explosions, uncontrollable flows of oil, natural gas or well fluids, fires, spills, pollution, releases of toxic gas and other environmental hazards and risks. These hazards and risks could result in substantial losses to us from, among other things, injury or loss of life, severe damage to or destruction of property, natural resources and equipment, pollution or other environmental damage, cleanup responsibilities, regulatory investigation and penalties and suspension of operations. In addition, we may be liable for environmental damages caused by previous owners of property purchased and leased by ourselves. In recent years, there has also been increased scrutiny on the environmental risk associated with hydraulic fracturing, such as underground migration and surface spillage or mishandling of fracturing fluids including chemical additives. As a result, substantial liabilities to third parties or governmental entities may be incurred, the payment of which could reduce or eliminate the funds available for exploration, development or acquisitions or result in the loss of our properties and/or force us to expend substantial monies in connection with litigation or settlements. We currently have no insurance to cover such losses and liabilities, and even if insurance is obtained, it may not be adequate to cover any losses or liabilities. The occurrence of a significant event not fully insured or indemnified against could materially and adversely affect our financial condition and operations. In addition, pollution and environmental risks generally are not fully insurable. The occurrence of an event not fully covered by insurance could have a material adverse effect on our financial condition and results of operations.

Our actual amounts of production, revenue, taxes, development expenditures, operating expenses, and quantities of recoverable oil and gas reserves may vary substantially from estimates and could have an adverse effect on our financial condition and operations.

Estimates of reserves and of future net revenues prepared by different petroleum engineers and/or valuation firms may vary substantially depending, in part, on the assumptions made and may be subject to adjustment either up or down in the future. Our actual amounts of production, revenue, taxes, development expenditures, operating expenses, and quantities of recoverable oil and gas reserves may vary substantially from the estimates. Oil and gas reserve estimates are necessarily inexact and involve matters of subjective engineering judgment. In addition, any estimates of our future net revenues and the present value thereof are based on assumptions derived in part from historical price and cost information, which may not reflect current and future values, and/or other assumptions made by management that only represent our best estimates. Additionally, if declines in and instability of oil and gas prices occur, then write downs in the capitalized costs associated with any oil and gas assets we obtain may be required. Because of the nature of the estimates of our reserves and estimates in general, reductions to our estimated proved oil and gas reserves and estimated future net revenues may not be required in the future, and/or that our estimated reserves may not present and/or commercially extractable. If our reserve estimates are incorrect, we may be forced to write down the capitalized costs and the estimated value of our oil and gas properties as shown on our balance sheet.

We may become responsible for costs associated with abandoning and reclaiming wells, facilities and pipelines which we use for production of oil and natural gas reserves, and unknown decommissioning costs may be substantial.

Abandonment and reclamation of these facilities and the costs associated therewith is often referred to as "decommissioning." We accrue a liability for decommissioning costs associated with our wells but have not established any cash reserve account for these potential costs in respect of any of our properties. If decommissioning is required before economic depletion of our properties or if our estimates of the costs of decommissioning exceed the value of the reserves remaining at any particular time to cover such decommissioning costs,

we may have to draw on funds from other sources to satisfy such costs. The use of other funds to satisfy such decommissioning costs could impair our ability to focus capital investment in other areas of our business.

Challenges to the oil and gas properties could negatively impact our financial condition.

Title to oil and gas interests is often not capable of conclusive determination without incurring substantial expense. While we have made and intend to make appropriate inquiries into the title of properties and other development rights we have acquired and intend to acquire, title defects may exist. In addition, we may be unable to obtain adequate insurance for title defects, on a commercially reasonable basis or at all. If title defects do exist, it is possible that we may lose all or a portion of our right, title and interests in and to the properties to which the title defects relate. If the property rights are reduced, our ability to conduct exploration, development and production activities may be impaired. To mitigate title problems, common industry practice is to obtain a title opinion from a qualified oil and gas attorney prior to the drilling operations of a well.

Continuing drilling obligations under our oil and gas related leases may not be met, which could adversely affect our financial condition and operations.

The leases for the Orogrande properties include additional drilling requirements for 2022 and 2023 which may require us to raise additional capital. We intend to sell the leases in 2022 and transfer the ongoing obligations to the new owners, or spin out, the leases. If such a transfer is not completed in a timely manner, we may be forced to attempt to raise additional capital for this purpose or seek an extension from the lessor of the lease drilling obligations. We may be unable to raise additional funds on favorable terms. To the extent that we raise additional capital through the sale of equity or equity-linked securities, including convertible debt, or other offerings, our shareholders' ownership interest will be diluted, and the terms may include liquidation or other preferences that adversely affect their rights as a stockholder. Incurring additional indebtedness would result in increased fixed payment obligations and could involve certain restrictive covenants, such as limitations on our ability to incur additional debt, limitations on our ability to acquire or license intellectual property rights and other operating restrictions that could adversely impact our ability to conduct our business. We have no committed

source of additional capital and if we are unable to raise additional capital in sufficient amounts or on terms acceptable to us, we may not be able to meet the additional drilling requirements and the leases will be lost.

Our ability to maintain our rights under the oil and gas related leases is dependent on numerous factors outside of our control.

The leased assets are held for sale. Our ability to attract capital to enable on-going compliance with the lease obligations depends upon numerous factors largely beyond our control. These factors include:

- oil, NGLs and natural gas prices;
- global supply and demand for oil, NGLs and natural gas;
- the overall state of the financial markets, including investor appetite for debt and equity securities issued by oil and natural gas companies and the effects of economic recessions or depressions;
- the ability to secure and maintain financing on acceptable terms;
- legislative, environmental and regulatory matters;
- oil and natural gas reservoir quality;
- the availability of drilling rigs, completions equipment and other facilities and equipment;
- the ability to access lands;
- the ability to access water for hydraulic fracturing operations;
- reliance on vendors, suppliers, contractors and service providers;
- shortages of sufficiently skilled labor, or labor disagreements resulting in unplanned work stoppages;
- changes to free trade agreements;
- inflation and other unexpected cost increases, including with respect to materials and labor;
- prevailing interest and foreign exchange rates;
- royalty and tax rates;
- physical impacts from adverse weather conditions and natural disasters;
- transportation and processing interruptions or constraints, including the availability and proximity of pipeline and processing capacity; and
- technology failures; and accidents.

Oil and natural gas prices are volatile. An extended decline in commodity prices may adversely affect our business, financial condition, or results of operations and our ability to meet our capital expenditure obligations and financial commitments.

Oil and natural gas are commodities and, therefore, their prices are subject to wide fluctuations in response to relatively minor changes in supply and demand. Historically, the commodities market has been volatile. If the prices of oil and natural gas continue to be volatile, reverse their recent increases, or decline, our operations, financial condition, cash flows and level of expenditures may be materially and adversely affected. Moreover, the duration and magnitude of any decline in oil or natural gas prices cannot be predicted with accuracy,

and this market will likely continue to be volatile in the future. The prices we receive for our production, and the levels of our production, depend on numerous factors beyond our control. These factors include, but are not limited to, the following:

- worldwide and regional economic conditions impacting the global supply and demand for oil and natural gas;
- the price and quantity of foreign imports, including foreign oil;
- the actions by members of OPEC;
- political, economic, and military conditions in or affecting other producing countries, including embargoes or conflicts in the Middle East, Africa, South America and Russia;
- the level of global oil and natural gas exploration and production activity;
- the level of global oil and natural gas inventories;
- prevailing prices on local price indices in the areas in which we operate;
- the cost of producing and delivering oil and natural gas and conducting other operations;
- the recovery rates of new oil and natural gas reserves;
- lead times associated with acquiring equipment and products, and availability of qualified personnel;
- late deliveries of supplies;
- technical difficulties or failures;
- the proximity, capacity, cost, and availability of gathering and transportation facilities;
- localized and global supply and demand fundamentals and transportation availability;
- localized and global weather conditions;
- public health concerns such as COVID-19;
- technological advances affecting energy consumption, including advances in exploration, development and production technologies;
- shareholder activism or activities by non-governmental organizations to restrict the exploration, development and production of oil and natural gas;
- uncertainty in capital and commodities markets and the ability of companies in our industry to raise equity capital and debt financing;
- the price and availability of alternative fuels; and
- domestic, local, and foreign governmental regulation and taxes.

Our development and exploratory drilling efforts and our well operations may not be profitable or achieve targeted returns.

Development and exploratory drilling and production activities are subject to many risks, including the risk that no commercially productive reservoirs will be discovered. We cannot provide assurance that our oil and gas properties and operations will be profitable.

Any material inaccuracies in assumptions relating to current and future economic conditions and commodity prices could adversely affect our financial condition and operation.

The process of estimating oil and natural gas reserves is complex. It requires interpretations of available technical data and many assumptions, including assumptions relating to current and future economic conditions and commodity prices. Any significant inaccuracies in these interpretations or assumptions could materially impact our ability for our oil and gas operations to become profitable.

We cannot be sure that estimated development costs are accurate, that development will occur as scheduled or that results of such development will be as estimated. Delays in the development of our reserves, if any, increases in costs to drill and develop such reserves, or decreases in commodity prices may result in some projects becoming uneconomic.

Risks Related to Legal Matters

We are, and may in the future become, subject to various legal proceedings and claims that arise in or outside the ordinary course of business and which could adversely affect our business.

We are, and may in the future become, subject to various legal proceedings and claims that arise in or outside the ordinary course of business. We cannot predict the outcome of these proceedings or provide an estimate of potential damages, if any. We believe that the claims in the securities class actions are without merit and intend to defend against them vigorously. Regardless, failure by us to obtain a favorable resolution of the claims set forth in the complaints could require us to pay damage awards or otherwise enter into settlement arrangements for which our insurance coverage may be insufficient. Any such damage awards or settlement arrangements in current or future litigation could have a material adverse effect on our business, operating results or financial condition. Even if plaintiffs' claims are not successful, defending against class action litigation is expensive and could divert management's attention and resources, all of which could have a material adverse effect on our financial condition and operations, operating results and financial condition and negatively affect the price of our common stock. In addition, such lawsuits may make it more difficult for us to finance our operations in the future. See Note 20 in the notes to unaudited interim consolidated financial statements that are included elsewhere in this Quarterly Report on Form 10-Q for more information regarding our legal proceedings.

Current and future investigations by the SEC have and could continue to have an adverse impact on our business.

We are cooperating and intend to continue to cooperate with the SEC's investigation as described elsewhere in this Quarterly Report on Form 10-Q. Investigations can be inherently uncertain and their results and timing cannot be predicted. Regardless of the outcome, SEC investigations have and could continue to have an adverse impact us by resulting in legal costs, diversion of management resources, and other negative factors. SEC investigations could also result in reputational harm to us, which, among other things, may limit our ability to obtain new customers and enter into new agreements with our existing customers, or our ability to obtain financing, and have a material adverse effect on our current and future business, financial condition, results of operations and prospects. See Note 20 in the notes to unaudited interim consolidated financial statements that are included elsewhere in this Quarterly Report on Form 10-Q for more information regarding the SEC's investigation.

Risks Related to our Common Stock

You may experience future dilution as a result of future equity offerings or other equity issuances.

We will have to raise additional capital in the future. To raise additional capital, we may in the future offer additional shares of our common stock or other securities convertible into or exchangeable for our common stock at prices that may be lower than the price you paid per share. In addition, investors purchasing shares or other securities in the future could have rights superior to those of other investors. Any such issuance could result in substantial dilution to investors.

Subject to various spending levels approved by our board of directors, our management will have broad discretion in the use of the net proceeds from our capital raises, and may not use them effectively.

Our management will have broad discretion in the application of the net proceeds from our capital raises, and our stockholders will not have the opportunity as part of their investment decision to assess whether the net proceeds from our capital raises are being used appropriately. Because of the number and variability of factors that will determine our use of the net proceeds from our capital raises, their ultimate use may vary substantially from their currently intended use. You may not agree with our decisions, and our use of the

proceeds from our capital raises may not yield any return to stockholders. Our failure to apply the net proceeds of our capital raises effectively could compromise our ability to pursue our growth strategy and we might not be able to yield a significant return, if any, on our investment of those net proceeds. Stockholders will not have the opportunity to influence our decisions on how to use our net proceeds from our capital raises. Pending their use, we may invest the net proceeds from our capital raises in interest and non-interest-bearing cash accounts, short-term, investment-grade, interest-bearing instruments and U.S. government securities. These temporary investments are not likely to yield a significant return.

An active, liquid and orderly trading market may not be developed or sustained for our common stock, and, as a result, it may be difficult for you to sell your shares of our common stock.

The trading market for our common stock on the Nasdaq Capital Market has been limited and an active trading market for our common stock may never develop or be sustained. If a market for our common stock does not develop or is not sustained, it may be difficult for you to sell your shares of common stock at an attractive price or at all. We cannot predict the prices at which our common stock will trade. It is possible that in one or more future periods our results of operations may not meet the expectations of public market analysts and investors, and, as a result of these and other factors, the price of our common stock may fall.

If equities or industry analysts do not publish research or reports about our company, or if they issue adverse or misleading opinions regarding us or our stock, our stock price and trading volume could decline.

The trading market for our common stock will rely in part on the research and reports that industry or financial analysts publish about us or our business. If no or few analysts commence coverage of us or if such coverage is not maintained, the market price for our stock may be adversely affected. Our stock price also may decline if any analyst who covers us issues an adverse or erroneous opinion regarding us, our business model, our intellectual property or our stock performance, or if our operating results fail to meet analysts' expectations. If one or more analysts cease coverage of us or fail to regularly publish reports on us, we could lose visibility in the financial markets, which could cause our stock price or trading volume to decline and possibly adversely affect our ability to engage in future financings.

The market price of our common stock may be volatile, and the value of your investment could decline significantly.

The trading price of our common stock has been and is likely to continue to be volatile. The trading price of our common stock since June 28, 2021 (the date of completion of the Arrangement) has ranged from a high of $ 7.9 to a low of $0.6 . Factors that have caused, and could continue to cause, fluctuations in the trading price of our common stock include, but are not limited to, the following:

- sales of our common stock, or securities exercisable for or convertible into our common stock, or the perception that such sales or conversions could occur in the future;
- the impact of the COVID-19 pandemic and other public health crises, including on macroeconomic conditions

  and our business, results of operations and financial condition;
- price and volume fluctuations in the overall stock market from time to time;

- changes in operating performance, stock market valuations and volatility in the market prices of other industry peers;
- actual or anticipated quarterly variations in our results of operations or those of our competitors;
- actual or anticipated changes in our growth rate relative to our competitors;
- announcements by us or our competitors of acquisitions, new products, significant contracts, commercial relationships or capital commitments;
- manufacturing, labor or supply interruptions;
- developments with respect to intellectual property rights;
- developments with respect to litigation;
- our ability to develop and market new and enhanced products on a timely basis;
- commencement of, or our involvement in, litigation;
- major changes in our board of directors or management;
- changes in governmental regulations or in the status of our regulatory approvals;
- actual or perceived privacy, data protection or cybersecurity breaches or incidents;
- the trading volume of our common stock;
- failure of financial analysts to maintain coverage of us, changes in financial estimates by any analysts who follow us, or our failure to meet these estimates or the expectations of investors;
- fluctuations in the values of companies perceived by investors to be comparable to and peers of us;
- the financial projections we may provide to the public, any changes in these projections or our failure to meet these projections; and
- general economic conditions and slow or negative growth of related markets.

The stock market in general, and market prices for the securities of similar companies in particular, have from time to time experienced volatility that often has been unrelated to the operating performance of the underlying companies. These broad market and industry fluctuations may adversely affect the market price of our common stock, regardless of our operating performance, which might make it more difficult for us to sell equity securities in the future at a time and at a price that we deem appropriate. In several recent situations when the market price of a stock has been volatile, holders of that stock have instituted securities class action litigation against. If any of our stockholders were to bring a lawsuit against us, the defense and disposition of the lawsuit could be costly and divert the time and attention of our management and materially adversely affect our results of operations. See Note 20 in the notes to unaudited interim consolidated financial statements that are included elsewhere in this Quarterly Report on Form 10-Q for more information regarding the SEC's investigation.

Our failure to satisfy certain Nasdaq listing requirements may result in our common stock being delisted from the Nasdaq Capital Market, which could eliminate the trading market for our common stock.

On August 25, 2022, we received written notice ("The Bid Price Letter") from The Nasdaq Stock Market LLC ("Nasdaq") indicating that we are not in compliance with the $1.00 minimum bid price requirement for continued listing on The Nasdaq Capital Market, as set forth in Nasdaq Listing Rule 5550(a)(2) (the "Bid Price Rule"). In accordance with Nasdaq Listing Rule 5810(c)(3)(A), we have a period of 180 calendar days, or until February 21, 2023, to regain compliance with the Bid Price Rule. To regain compliance, the closing bid price of our common stock must meet or exceed $1.00 per share for a minimum of ten consecutive business days during this 180-day period. The Bid Price Letter was a notice of deficiency, not delisting, and does not currently affect the listing or trading of shares of our common stock on The Nasdaq Capital Market, which continues to trade under the symbol "MMAT." We intend to continue actively monitoring the closing bid price of shares of our common stock and may, if appropriate, consider implementing available options to regain compliance with the Bid Price Rule.

If we do not regain compliance within the allotted compliance periods, including any extensions that may be granted by Nasdaq, Nasdaq will provide notice that our common stock will be subject to delisting. We would then be entitled to appeal that determination to a Nasdaq hearings panel. If the stock is delisted, we may trade on the over-the-counter market, or even in the pink sheets, which would significantly decrease the liquidity of an investment in our common stock. In addition, the stock may be deemed to be penny stock. If our common stock is considered penny stock, we would be subject to rules that impose additional sales practices on broker-dealers who sell our securities. For example, broker-dealers would have to make a special suitability determination for the purchaser and have received the purchaser's written consent to the transaction prior to sale. Also, a disclosure schedule must be prepared prior to any transaction involving a penny stock and disclosure is required about sales commissions payable to both the broker-dealer and the registered representative and current quotations for the securities. Monthly statements are also required to be sent disclosing recent price information for the penny stock held in the account and information on the limited market in penny stock. Because of these additional obligations, some brokers may be unwilling to effect transactions in penny stocks. This could have an adverse effect on the liquidity of our common stock and the ability of investors to sell the common stock.

Future sales and issuances of a substantial number of shares of our common stock or rights to purchase common stock by our stockholders in the public market could result in additional dilution of the percentage ownership of our stockholders and cause our stock price to fall.

If our stockholders sell, or indicate an intention to sell, substantial amounts of our common stock in the public market, the trading price of our common stock could decline.

We have and may continue to issue equity, convertible securities or other securities to investors in public and private offerings. In addition, we currently have effective resale shelf registration statements which enable the selling stockholders thereunder to sell shares in the public market pursuant thereto.

We also have outstanding as of September 30, 2022, 39,920,919 warrants to purchase 39,920,919 shares of our common stock at a weighted average exercise price of $1.93 per share. These warrants include 37,037,039 warrants issued in the June 2022 registered direct offering with an exercise price of $1.75 per share that will be eligible for exercise starting December 28, 2022 and, if exercised, will have a dilutive effect on the percentage ownership held by holders of our common stock.

Further, additional capital may be needed in the future to continue our planned operations, including commercialization efforts, expanded research and development activities and costs associated with operating a public company. To raise capital, we may sell common stock, convertible securities or other equity securities in one or more transactions at prices and in a manner, we determine from time to time. If we sell common stock, convertible securities or other equity securities, investors may be materially diluted by subsequent sales. Such sales may also result in material dilution to our existing stockholders, and new investors could gain rights, preferences and privileges senior to the holders of our common stock. Additional issuances and sales of our common stock, including shares of our common stock available for issuance to our employees, directors and consultants, or a perception that such shares will be sold in the public market, could result in additional dilution and the trading price of our common stock could decline.

We may issue preferred stock whose terms could adversely affect the voting power or value of our common stock.

Our board of directors is authorized, without further stockholder action, and subject to Nasdaq rules, to issue preferred stock in one or more series and to designate the dividend rate, voting rights and other rights, preferences and restrictions of each such series. The terms of one or more classes or series of preferred stock could adversely impact the voting power or value of our common stock. Also, we might grant holders of preferred stock the right to elect some number of our directors in all events or on the happening of specified events or the right to veto specified transactions. Similarly, the repurchase or redemption rights or liquidation preferences we might assign to holders of preferred stock could affect the residual value of our common stock.

Anti-takeover provisions in our articles of incorporation and bylaws, as amended, as well as provisions in Nevada law, might discourage, delay, or prevent a change of control of us or changes in our management and, therefore, depress the trading price of our securities.

Our articles of incorporation and bylaws, as amended, as well as provisions in Nevada law, contain provisions that could have the effect of rendering more difficult or discouraging an acquisition deemed undesirable by our board. Our corporate governance documents include provisions:

- authorizing blank check preferred stock, which could be issued with voting, liquidation, dividend and other rights superior to our common stock;
- limiting the liability of, and providing indemnification to, our directors, including provisions that require us to advance payment for defending pending or threatened claims;
- limiting the ability of our stockholders to call and bring business before special meetings and to take action by written consent in lieu of a meeting;
- requiring advance notice of stockholder proposals for business to be conducted at meetings of our stockholders and for nominations of candidates for election to our Board;
- controlling the procedures for the conduct and scheduling of board and stockholder meetings;
- limiting the determination of the number of directors on our board and the filling of vacancies or newly created seats on the board to our Board then in office; and
- providing that directors may be removed by stockholders at any time.

These provisions, alone or together, could delay hostile takeovers and changes in control or changes in our management.

As a Nevada corporation, we are also subject to provisions of Nevada corporate law, including Section 78.411, et seq. of the Nevada Revised Statutes, which, among other things, prohibits a publicly-held Nevada corporation from engaging in a business combination with an interested stockholder, generally a person which together with its affiliates owns, or within the last two years has owned, 10% of our voting stock, for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is approved in a prescribed manner, and, unless otherwise provided in our articles of incorporation or by-laws, restricts the ability of an acquiring person to obtain a controlling interest of 20% or more of our voting shares. Our articles of incorporation and by-laws, as amended, do not contain any provision which would currently keep the change of control restrictions of Section 78.378 from applying to it.

The existence of the foregoing provisions and anti-takeover measures could limit the price that investors might be willing to pay in the future for shares of our common stock. They could also deter potential acquirers of us, thereby reducing the likelihood that our stockholders could receive a premium for their common stock in an acquisition.

We are a smaller reporting company. We cannot be certain whether the reduced disclosure requirements applicable to smaller reporting companies will make our common stock less attractive to investors or otherwise limit our ability to raise additional funds.

As of September 30, 2022, we are a "smaller reporting company" under applicable U.S. securities regulations. A smaller reporting company is a company that, as of the last business day of its most recently completed second fiscal quarter, has (i) an aggregate market value of the company's voting stock held by non-affiliates, or public float, of less than $250 million or (ii) less than $100 million in revenue and less than $700 million in public float. In addition, a smaller reporting company is able to provide simplified executive compensation disclosures in our filings and has certain other reduced disclosure obligations in our SEC filings, including, among other things, only being required to provide two years of audited financial statements in annual reports. Reduced disclosure in our SEC filings due to our status as a smaller reporting company may make it harder for investors to analyze our results of operations and financial prospects.

We have not paid cash dividends in the past and have no immediate plans to pay dividends.

Our current plan is to reinvest earnings, if any, to cover operating costs and otherwise remain competitive. We do not plan to pay any cash dividends with respect to our securities in the foreseeable future. We cannot assure you that we would, at any time, generate

sufficient surplus cash that would be available for distribution to the holders of our common stock as a dividend. Therefore, you should not expect to receive cash dividends on our common stock.

General Risk Factors

We are exposed to fluctuations in currency exchange rates.

Our revenues and expenses are denominated in U.S. dollars, Canadian dollars, EURO, and Great 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 U.S. dollar, the Canadian dollar and the Great British Pounds may have a material adverse effect on our business, financial condition, and operating results. We may, in the future, establish a program to hedge a portion of our foreign currency exposure with the objective of minimizing the impact of adverse foreign currency exchange movements. With appropriate risk management and oversight this may be able to offset future risk, however a hedging strategy will result in additional operating costs.

Operating as a public company requires us to incur substantial costs and requires substantial management attention. In addition, certain members of our management team have limited experience managing a public company.

As a public company, we incur substantial legal, accounting and other expenses that we did not incur as a private company. For example, we are subject to the reporting requirements of the Exchange Act, the applicable requirements of the Sarbanes-Oxley Act, the Dodd-Frank Wall Street Reform and Consumer Protection Act, the rules and regulations of the SEC and the listing standards of the Nasdaq Stock Market. For example, the Exchange Act requires, among other things, that we file annual, quarterly and current reports with respect to our business, financial condition and results of operations. We are also required to maintain effective disclosure controls and procedures and internal control over financial reporting. Compliance with these rules and regulations has increased and will continue to increase our legal and financial compliance costs and increase demand on our systems. In addition, as a public company, we may be subject to stockholder activism, which can lead to additional substantial costs, distract management and impact the manner in which we operate our business in ways we cannot currently anticipate. As a result of disclosure of information in filings required of a public company, our business and financial condition will become more visible, which may result in threatened or actual litigation, including by competitors.

Additionally, certain members of our management team have limited experience managing a publicly traded company, interacting with public company investors and complying with the increasingly complex laws pertaining to public companies. Our management team may not successfully or efficiently manage our transition to being a public company subject to significant regulatory oversight and reporting obligations under the federal securities laws and the continuous scrutiny of securities analysts and investors. These obligations and constituents will require significant attention from our senior management and could divert their attention away from the day-to-day management of our business, which could adversely affect our business, financial condition and results of operations.

Increased scrutiny of our environmental, social or governance responsibilities may result in additional costs and risks, and may adversely impact our reputation, employee retention, and willingness of customers and suppliers to do business with us.

Investor advocacy groups, institutional investors, investment funds, proxy advisory services, stockholders, and customers are increasingly focused on environmental, social and governance ("ESG") practices of companies. Additionally, public interest and legislative pressure related to public companies' ESG practices continues to grow. If our ESG practices fail to meet regulatory requirements or investor or other industry stakeholders' evolving expectations and standards for responsible corporate citizenship in numerous areas, including environmental stewardship, support for local communities, director and employee diversity, human capital management, employee health and safety practices, product quality, supply chain management, corporate governance and transparency and employing ESG strategies within business operations, our brand, reputation and employee retention may be negatively impacted and customers and suppliers may be unwilling to do business with us. In addition, as we work to align our ESG practices with industry standards, we will likely continue to expand our disclosures in these areas and doing so may result in additional costs and require additional resources to monitor, report, and comply with our various ESG practices. If we fail to adopt ESG standards or practices as quickly as stakeholders desire, report on our ESG efforts or practices accurately, or satisfy the expectations of stakeholders, our reputation, business, financial performance and growth may be adversely impacted.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

On July 1, 2022, in connection with the completion of the Optodot transaction, we issued 268,092 shares of our common stock (the "Advisory Fee Shares") to Hamilton Clark Sustainable Capital, Inc. ("HamiltonClark") as partial satisfaction of the advisory fee payable to them as a result of completing the Optodot transaction and pursuant to, and in accordance with, that certain letter agreement between MMI and HamiltonClark, dated as of March 12, 2021, as amended and supplemented (the "Letter Agreement"). In accordance with the terms of the Letter Agreement, 223,052 of the Advisory Fee Shares vested automatically, 30,170 of the Advisory Fee Shares will vest on July 1, 2023, and 14,870 of the Advisory Fee Shares will vest on July 1, 2024. The Advisory Fee Shares are not registered under the Securities Act of 1933, as amended (the "Securities Act"). Issuance of the Advisory Fee Shares was undertaken in reliance upon exemptions from the registration requirements of the Securities Act pursuant to Section 4(a)(2) thereof to sophisticated and accredited investors.

Item 3. Defaults Upon Senior Securities

None.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

None

Item 6. Exhibits

Furnish the exhibits required by Item 601 of Regulation S-K (§ 229.601 of this chapter).

Exhibit Number	Exhibit Description	Incorporated by Reference		
		Form	Exhibit Number	Filing Date
31.1	Certification of Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.			Filed Herewith
31.2	Certification of Principal Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.			Filed Herewith
32.1+	Certification of Principal Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.			Furnished Herewith
32.2+	Certification of Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.			Furnished Herewith
101.INS	Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File because XBRL tags are embedded within the Inline XBRL document.			Filed Herewith
101.SCH	Inline XBRL Taxonomy Extension Schema Document			Filed Herewith
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document			Filed Herewith
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document			Filed Herewith
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document			Filed Herewith
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document			Filed Herewith
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)			Filed Herewith

\+ The certifications attached as Exhibit 32.1 that accompany this Quarterly Report on Form 10-Q are not deemed filed with the Securities and Exchange Commission and are not to be incorporated by reference into any filing of the registrant under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date of this Quarterly Report on Form 10-Q, irrespective of any general incorporation language contained in such filing

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this Report to be signed on its behalf by the undersigned, thereunto duly authorized.

Meta Materials Inc.

Dated: November 9, 2022

By: /s/ George Palikaras

George Palikaras
President and Chief Executive Officer
(Principal Executive Officer)

Dated: November 9, 2022

By: /s/ Kenneth Rice

Ken Rice
Chief Financial Officer and Chief Operating Officer
(Principal Financial and Accounting Officer)