
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549**

FORM 10-Q

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

For the quarterly period ended June 30, 2023

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: 001-39092

SHAPEWAYS HOLDINGS, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of incorporation)

87-2876494
(I.R.S. Employer Identification No.)

**12163 Globe St,
Livonia, MI 48150**
(Address of principal executive offices) (Zip Code)

(734) 422-6060
(Registrant's telephone number, including area code)

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 \$0.0001 per share	SHPW	The Nasdaq Stock Market LLC
Warrants to purchase Common Stock	SHPWW	The Nasdaq Stock Market LLC

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 (§232.0405 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, a 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	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input checked="" type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>
		Emerging growth company	<input checked="" type="checkbox"/>

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 12b2 of the Exchange Act). Yes No

As of August 9, 2023 the registrant had 6,441,427 shares of common stock outstanding.

SHAPEWAYS HOLDINGS, INC.
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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q (the “Report”), including, without limitation, the section titled “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”) and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). All statements, other than statements of present or historical fact included in or incorporated by reference in this Report, regarding the future financial performance of Shapeways Holdings, Inc. (the “Company,” “Shapeways,” “we,” “us” or “our”), as well as the Company’s strategy, future operations, future operating results, financial position, estimated revenues and losses, projected costs, prospects, plans, objectives of management and ability to fund its planned operations for the next twelve months and to continue to operate as a going concern are forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as “plan,” “believe,” “expect,” “anticipate,” “intend,” “outlook,” “estimate,” “forecast,” “project,” “continue,” “could,” “may,” “might,” “possible,” “potential,” “predict,” “should,” “would,” “will,” “seek,” “target,” and other similar words and expressions, but the absence of these words does not mean that a statement is not forward-looking.

The forward-looking statements are based on information available as of the date of this Report and on the current expectations, forecasts and assumptions of the management of the Company, involve a number of judgments, risks and uncertainties and are inherently subject to changes in circumstances and their potential effects and speak only as of the date of such statements. There can be no assurance that future developments will be those that have been anticipated. These forward-looking statements involve a number of risks, uncertainties (some of which are beyond the Company’s control) or other assumptions that may cause actual results or performance to be materially different from those expressed, contemplated or implied by these forward-looking statements. These risks and uncertainties include, but are not limited to, those factors described under Part II, Item 1A: “Risk Factors.” Should one or more of these risks or uncertainties materialize, or should any of our assumptions prove incorrect, actual results may vary in material respects from those projected in these forward-looking statements. The Company undertakes no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as may be required under applicable securities laws. These risks and others described under Part II, Item 1A: “Risk Factors” may not be exhaustive.

By their nature, forward-looking statements involve risks and uncertainties because they relate to events and depend on circumstances that may or may not occur in the future. Forward-looking statements are not guarantees of future performance and the Company’s actual results of operations, financial condition and liquidity, and developments in the industry in the Company operates may differ materially from those made in or suggested by the forward-looking statements contained in this Report. In addition, even if the Company’s results or operations, financial condition and liquidity, and developments in the industry in which it operates are consistent with the forward-looking statements contained in this Report, those results or developments may not be indicative of results or developments in subsequent periods.

PART 1 - FINANCIAL INFORMATION

ITEM 1. Financial Statements

SHAPEWAYS HOLDINGS, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
(in thousands, except share and per share amounts)

	June 30, 2023	December 31, 2022
	(Unaudited)	
Assets		
Current assets		
Cash and cash equivalents	\$ 14,664	\$ 30,630
Restricted cash	140	139
Short-term investments	9,922	9,816
Accounts receivable	3,183	1,606
Inventory	1,798	1,307
Prepaid expenses and other current assets	6,455	6,255
Total current assets	36,162	49,753
Property and equipment, net	16,705	15,627
Operating lease, right-of-use assets, net	2,162	2,365
Goodwill	6,286	6,286
Intangible assets, net	5,020	5,398
Security deposits	99	99
Total assets	\$ 66,434	\$ 79,528
Liabilities and Stockholders' Equity		
Current liabilities		
Accounts payable	\$ 2,241	\$ 2,354
Accrued expenses and other liabilities	3,961	5,950
Operating lease liabilities, current	848	719
Finance lease liability, current	44	—
Other financing obligations, current	39	—
Deferred revenue	1,838	972
Total current liabilities	8,971	9,995
Operating lease liabilities, net of current portion	1,408	1,715
Deferred tax liabilities, net	64	27
Finance lease liability, noncurrent	189	—
Other financing obligations	448	—
Total liabilities	11,080	11,737
Commitments and contingencies		
Stockholders' equity		
Preferred stock (\$0.0001 par value; 10,000,000 shares authorized; none issued or outstanding as of June 30, 2023 and December 31, 2022)	—	—
Common stock (\$0.0001 par value; 120,000,000 shares authorized; 6,442,436 and 6,180,646 shares issued and outstanding as of June 30, 2023 and December 31, 2022, respectively) ⁽¹⁾	5	5
Additional paid-in capital	203,065	201,362
Accumulated deficit	(147,216)	(133,032)
Accumulated other comprehensive loss	(500)	(544)
Total stockholders' equity	55,354	67,791
Total liabilities and stockholders' equity	\$ 66,434	\$ 79,528

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

(1) Retroactively adjusted shares issued and outstanding to give effect to the Company's 1-for-8 reverse stock split. See Note 2.

SHAPEWAYS HOLDINGS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(UNAUDITED)

(in thousands, except share and per share amounts)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Revenue, net	\$ 8,440	\$ 8,433	\$ 16,639	\$ 16,003
Cost of revenue	5,029	4,791	9,946	8,952
Gross profit	3,411	3,642	6,693	7,051
Operating expenses				
Selling, general and administrative	8,081	6,766	16,562	12,911
Research and development	2,478	2,355	5,004	4,420
Total operating expenses	10,559	9,121	21,566	17,331
Loss from operations	(7,148)	(5,479)	(14,873)	(10,280)
Other income (expense)				
Interest income	347	1	666	2
Interest expense	(31)	—	(52)	—
Other income	84	38	198	39
Loss on disposal of assets	(13)	—	(85)	—
Change in fair value of warrant liabilities	—	765	—	1,527
Total other income (expense), net	387	804	727	1,568
Loss before income tax expense	(6,761)	(4,675)	(14,146)	(8,712)
Income tax expense (benefit)	20	(1)	38	(1)
Net loss	(6,781)	(4,674)	(14,184)	(8,711)
Net loss per share:				
Basic ⁽¹⁾	\$ (0.99)	\$ (0.70)	\$ (2.10)	\$ (1.32)
Diluted ⁽¹⁾	\$ (0.99)	\$ (0.70)	\$ (2.10)	\$ (1.32)
Weighted average common shares outstanding:				
Basic ⁽¹⁾	6,835,568	6,633,658	6,756,394	6,615,649
Diluted ⁽¹⁾	6,835,568	6,633,658	6,756,394	6,615,649
Other comprehensive income (loss)				
Foreign currency translation adjustment	5	(174)	44	(226)
Comprehensive loss	\$ (6,776)	\$ (4,848)	\$ (14,140)	\$ (8,937)

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

(1) Retroactively adjusted shares issued and outstanding, and per share information to give effect to the Company's 1-for-8 reverse stock split. See Note 2.

SHAPEWAYS HOLDINGS, INC.
CONDENSED CONSOLIDATED STATEMENT OF CHANGES IN STOCKHOLDERS' EQUITY
(UNAUDITED)

(in thousands, except share and per share amounts)

	Common Stock		Additional Paid-In Capital	Accumulated Deficit	Accumulated Other Comprehensive Loss	Total Stockholders' Equity
	Shares ⁽¹⁾	Amount				
Balance at January 1, 2023	6,180,646	\$ 5	\$ 201,362	\$ (133,032)	\$ (544)	\$ 67,791
Issuance of common stock for stock-based compensation	20,507	—	—	—	—	—
Cancellation of restricted stock	(7)	—	—	—	—	—
Stock-based compensation expense	—	—	805	—	—	805
Net loss	—	—	—	(7,403)	—	(7,403)
Foreign currency translation	—	—	—	—	39	39
Balance at March 31, 2023	6,201,146	5	202,167	(140,435)	(505)	61,232
Issuance of common stock for stock-based compensation	118,945	—	—	—	—	—
Issuance of common stock upon settlement of earnout consideration liability	156,658	—	537	—	—	537
Restricted stock units withheld for employee tax liability	(34,058)	—	(111)	—	—	(111)
Cancellation of restricted stock	(170)	—	—	—	—	—
Stock-based compensation expense	—	—	476	—	—	476
Redemption of fractional shares on reverse stock split	(85)	—	(4)	—	—	(4)
Net loss	—	—	—	(6,781)	—	(6,781)
Foreign currency translation	—	—	—	—	5	5
Balance at June 30, 2023	6,442,436	\$ 5	\$ 203,065	\$ (147,216)	\$ (500)	\$ 55,354

(1) Retroactively adjusted shares issued and outstanding to give effect to the Company's 1-for-8 reverse stock split. See Note 2.

	<u>Common Stock</u>				Accumulated Other Comprehensive Loss	Total Stockholders' Equity
	Shares ⁽¹⁾	Amount	Additional Paid-In Capital	Accumulated Deficit		
Balance at January 1, 2022	6,078,467	\$ 5	\$ 198,179	\$ (112,811)	\$ (369)	\$ 85,004
Issuance of Legacy Shapeways common stock upon exercise of stock options	27,246	—	99	—	—	99
Stock-based compensation expense	—	—	312	—	—	312
Net loss	—	—	—	(4,037)	—	(4,037)
Transfer of Private Warrants to Public Warrants	—	—	382	—	—	382
Foreign currency translation	—	—	—	—	(52)	(52)
Balance at March 31, 2022	6,105,713	5	198,972	(116,848)	(421)	81,708
Issuance of Legacy Shapeways common stock upon exercise of stock options	45,966	—	189	—	—	189
Stock-based compensation expense	—	—	457	—	—	457
Net loss	—	—	—	(4,674)	—	(4,674)
Transfer of Private Warrants to Public Warrants	—	—	288	—	—	288
Foreign currency translation	—	—	—	—	(174)	(174)
Balance at June 30, 2022	6,151,679	\$ 5	\$ 199,906	\$ (121,522)	\$ (595)	\$ 77,794

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

(1) Retroactively adjusted shares issued and outstanding to give effect to the Company's 1-for-8 reverse stock split. See Note 2.

SHAPEWAYS HOLDINGS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(UNAUDITED)
(in thousands, except share and per share amounts)

	Six Months Ended June 30,	
	2023	2022
Cash flows from operating activities:		
Net loss	\$ (14,184)	\$ (8,711)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	972	559
Loss on disposal of assets	85	—
Stock-based compensation expense	1,281	769
Non-cash lease expense	500	354
Deferred income taxes	37	—
Interest receivable on short-term investments	(530)	—
Change in fair value of warrant liabilities	—	(1,527)
Change in operating assets and liabilities:		
Accounts receivable	(1,577)	(298)
Inventory	(471)	(47)
Prepaid expenses and other assets	12	(2,239)
Accounts payable	80	(600)
Accrued expenses and other liabilities	(1,457)	358
Operating lease liabilities	(480)	(411)
Deferred revenue	866	(373)
Net cash used in operating activities	<u>(14,866)</u>	<u>(12,166)</u>
Cash flows from investing activities:		
Purchases of property and equipment	(1,686)	(8,454)
Purchase of short-term investments	(9,769)	—
Proceeds from settlement of short-term investments	10,000	—
Cash paid for acquisitions, net of cash acquired	—	(8,861)
Net cash used in investing activities	<u>(1,455)</u>	<u>(17,315)</u>
Cash flows from financing activities:		
Proceeds received from other finance obligations	493	—
Principal payments on finance leases	(27)	—
Payments on other finance obligations	(13)	—
Payments of taxes on restricted stock units withheld for employee taxes	(111)	—
Proceeds from issuance of common stock	—	288
Net cash provided by financing activities	<u>342</u>	<u>288</u>
Net change in cash and cash equivalents and restricted cash	(15,979)	(29,193)
Effect of change in foreign currency exchange rates on cash and cash equivalents and restricted cash	14	(86)
Cash and cash equivalents and restricted cash at beginning of period	30,769	79,819
Cash and cash equivalents and restricted cash at end of period	<u>\$ 14,804</u>	<u>\$ 50,540</u>
Supplemental disclosure of cash and non-cash transactions:		
Cash paid for interest	<u>\$ 52</u>	<u>\$ —</u>
Purchase of property and equipment included in accounts payable	<u>\$ 39</u>	<u>\$ —</u>
Issuance of common stock upon settlement of earnout consideration liability	<u>\$ 537</u>	<u>\$ —</u>

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

SHAPEWAYS HOLDINGS, INC.
NOTES TO THE UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(in thousands, except share and per share amounts)

Note 1. Organization

On September 29, 2021 (the “Closing” or the “Closing Date”), Galileo Acquisition Corp., a Cayman Islands exempted company (“Galileo” and after the Domestication (as defined below) “Shapeways”), a publicly-traded special purpose acquisition company, consummated the transactions described in the Agreement and Plan of Merger and Reorganization (the “Merger Agreement”) dated April 28, 2021, by and among Galileo Founders Holdings, L.P. (the “Sponsor”), Galileo Acquisition Corp., Galileo Acquisition Holdings, Inc., a Delaware corporation and wholly owned subsidiary of Galileo (“Merger Sub”), and Shapeways, Inc., a Delaware corporation (“Legacy Shapeways”), whereby Merger Sub merged with and into Legacy Shapeways, the separate corporate existence of Merger Sub ceasing and Legacy Shapeways being the surviving corporation and a wholly owned subsidiary of Shapeways (the “Merger”).

Further, on the Closing Date, Galileo was domesticated and continued as a Delaware corporation (the “Domestication” and, together with the Merger, the “Business Combination”), changing its name to “Shapeways Holdings, Inc.” (the “Company” and/or “Shapeways”). Simultaneously with the execution of the Business Combination, Galileo entered into subscription agreements pursuant to which certain investors agreed to purchase an aggregate of 7,500,000 shares of common stock for a purchase price of \$10.00 per share and \$75,000,000 in the aggregate (the “PIPE Investment”). At the Closing, the Company consummated the PIPE Investment. Shapeways also operates through its wholly owned subsidiaries, Shapeways BV, which was incorporated in the Netherlands on December 10, 2008 and Linear Mold & Engineering, LLC, also referred to as Linear AMS (“Linear”), which was acquired in May 2022.

Shapeways is a leader in the large and fast-growing digital manufacturing industry combining high quality, flexible on-demand manufacturing powered by purpose-built proprietary software which enables customers to rapidly transform digital designs into physical products, globally. Shapeways makes industrial-grade additive manufacturing accessible by fully digitizing the end-to-end manufacturing process, and by providing a broad range of solutions utilizing 12 additive manufacturing technologies and more than 120 materials and finishes, with the ability to easily scale new innovation. Shapeways has delivered over 24 million parts to over 1 million customers in over 180 countries, from inception through June 30, 2023.

Note 2. Summary of Significant Accounting Policies

Basis of Presentation and Principles of Consolidation

The accompanying unaudited condensed consolidated interim financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (“U.S. GAAP”) for interim financial information as defined by the Financial Accounting Standards Board (“FASB”) Accounting Standards Codification (“ASC”) and in accordance with the instruction to Form 10-Q and Article 8 of Regulation S-X of the Securities and Exchange Commission (“SEC”). Certain information or footnote disclosures normally included in financial statements prepared in accordance with U.S. GAAP have been condensed or omitted, pursuant to the rules and regulations of the SEC for interim financial reporting. Accordingly, they do not include all the information and footnotes necessary for a complete presentation of financial position, results of operations, or cash flows. The unaudited condensed consolidated financial statements include the accounts of its wholly owned subsidiaries, Legacy Shapeways, Shapeways BV and Linear. All intercompany accounts and transactions have been eliminated in consolidation. In the opinion of management, the accompanying unaudited condensed consolidated interim financial statements include all adjustments, consisting of a normal recurring nature, which are necessary for a fair presentation of the financial position, operating results and cash flows for the periods presented. These unaudited condensed consolidated interim financial statements should be read along with the audited financial statements included in the Company’s Annual Report on Form 10-K/A for the fiscal year ended December 31, 2022, as filed with the SEC on August 4, 2023 (the “Annual Report”).

Use of Estimates

The preparation of the Company’s unaudited condensed consolidated financial statements, in conformity with U.S. GAAP, requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and

SHAPEWAYS HOLDINGS, INC.
NOTES TO THE UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(in thousands, except share and per share amounts)

disclosure of contingent assets and liabilities at the date of the unaudited condensed consolidated financial statements and reported amounts of revenues and expenses during the reporting periods. Actual results may differ from those estimates.

Functional Currency

The Euro is the functional currency for Shapeways BV's operations outside the United States. Assets and liabilities of these operations are translated into U.S. Dollars at the exchange rate in effect at the end of each period. Income statement accounts are translated at the average exchange rate prevailing during the period. Translation adjustments arising from the use of differing exchange rates from period to period are included as a component of other comprehensive loss within stockholders' equity. Gains and losses from foreign currency transactions are included in net loss for the period.

Cash, Cash Equivalents and Restricted Cash

Cash includes cash on hand and demand deposits and highly liquid securities with original maturities at the date of acquisition of ninety days or less. The Company maintains its deposits at high quality financial institutions and monitors the credit ratings of those institutions. The Company considers all highly liquid investments with original maturities of three months or less to be cash equivalents. While cash held by financial institutions may at times exceed federally insured limits, the Company believes that no material credit or market risk exposure exists due to the high quality of the institutions. The Company has not experienced any losses on such accounts. Restricted cash represents cash required to be held as collateral for the Company's credit cards and security deposit for its facility in the Netherlands. Accordingly, these balances contain restrictions as to their availability and usage and are classified as restricted cash in the unaudited condensed consolidated balance sheets.

The reconciliation of cash, cash equivalents and restricted cash reported within the applicable unaudited condensed consolidated balance sheets that sum to the total of the same such amount shown in the unaudited condensed consolidated statements of cash flows is as follows:

	June 30, 2023	June 30, 2022
Cash and cash equivalents	\$ 14,664	\$ 50,402
Restricted cash	140	138
	<u>\$ 14,804</u>	<u>\$ 50,540</u>

Short-term investments

The Company invests its excess cash in fixed income instruments including U.S. treasury securities with a maturity of six months or less. The Company has the means to and intends to, hold all investments to maturity, and as such, its investments are classified as held-to-maturity investments. Held-to-maturity investments are recorded at amortized cost and adjusted for the amortization or accretion of premiums or discounts.

Accounts Receivable

Accounts receivable are recorded at the invoiced amount and are generally unsecured as they are uncollateralized. The Company provides an allowance for doubtful accounts to reduce receivables to their estimated net realizable value. Judgement is exercised in establishing allowances and estimates are based on the customers' payment history and liquidity. Any amounts that were previously recognized as revenue and subsequently determined to be uncollectible are charged to bad debt expense included in selling, general and administrative expense in the accompanying unaudited condensed consolidated statements of operations and comprehensive loss. Given the nature and historical collectability of the Company's accounts receivable, an allowance for doubtful accounts was not deemed necessary at June 30, 2023 and December 31, 2022.

SHAPEWAYS HOLDINGS, INC.
NOTES TO THE UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(in thousands, except share and per share amounts)

Inventory

Inventory consists of raw materials, work-in-process and finished goods at the Company's distribution centers. Raw materials are stated at the lower of cost or net realizable value, determined by the first-in-first-out method. Finished goods and work-in-process are valued using a methodology to determine the cost of each 3D printed object using allocations for material, labor, machine time and overhead. The Company periodically reviews its inventory for slow-moving, damaged and discontinued items and provides allowances to reduce such items identified to their recoverable amounts. As of June 30, 2023 and December 31, 2022, the Company determined an allowance was not deemed necessary.

Property and Equipment, net

Property and equipment are stated at cost, less accumulated depreciation. Maintenance and repairs are charged to expense when incurred. Additions and improvements that extend the economic useful life of the asset are capitalized and depreciated over the remaining useful lives of the assets. The cost and accumulated depreciation of assets sold or retired are removed from the respective accounts, and any resulting gain or loss is reflected in current earnings. No impairment charges were recorded for the three and six months ended June 30, 2023 and 2022. Costs for capital assets not yet placed into service are capitalized and depreciated once placed into service. Depreciation is recognized using the straight-line method in amounts considered to be sufficient to allocate the cost of the assets to operations over the estimated useful lives or lease terms, as follows:

Asset Category	Depreciable Life
Machinery and equipment	5 to 10 years
Computers and IT equipment	3 to 10 years
Furniture and fixtures	7 to 10 years
Vehicles	10 years
Leasehold improvements	**

** Leasehold improvements are amortized using the straight-line method over the shorter of the lease term or estimated useful life of the asset.

Long-Lived Assets, Including Definite-Lived Intangible Assets

Intangible assets, which consist of technology, customer relationships, trademarks, favorable and unfavorable operating leases, and non-competition agreements are stated at cost less accumulated amortization. Amortization is generally recorded on a straight-line basis over estimated useful lives ranging from two to ten years. The Company periodically reviews the estimated useful lives of intangible assets and adjusts when events indicate that a shorter life is appropriate. In accordance with authoritative accounting guidance, capitalization of costs to develop software begins when preliminary development efforts are successful and completed. Costs related to the design or maintenance of internal-use software are expensed as incurred.

Long-lived assets, other than goodwill and other indefinite-lived intangibles, are evaluated for impairment whenever events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable through the estimated undiscounted future cash flows derived from such assets.

Factors that the Company considers in deciding when to perform an impairment review include significant changes in the Company's forecasted projections for the asset or asset group for reasons including, but not limited to, significant underperformance of a product in relation to expectations, significant changes, or planned changes in the Company's use of the assets, significant negative industry or economic trends, and new or competing products that enter the marketplace. The impairment test is based on a comparison of the undiscounted cash flows expected to be generated from the use of the asset group. If impairment is indicated, the asset is written down by the amount by which the carrying value of the asset exceeds the related fair value of the asset with the related impairment charge recognized within the unaudited condensed consolidated statements of operations and comprehensive loss. No impairment charges were recorded for the three and six months ended June 30, 2023 and 2022.

SHAPEWAYS HOLDINGS, INC.
NOTES TO THE UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(in thousands, except share and per share amounts)

Goodwill

Goodwill, which represents the excess of purchase prices over the fair value of net assets acquired, is carried at cost. Goodwill is not amortized; rather, it is subject to a periodic assessment for impairment by applying a fair value-based test. Goodwill is evaluated for impairment on an annual basis at a level of reporting referred to as the reporting unit, and more frequently if adverse events or changes in circumstances indicate that the asset may be impaired.

Under ASC 350, *Intangibles - Goodwill and Other*, the Company has the option to first assess the qualitative factors to determine whether it is more likely than not that the fair value of the reporting unit is less than its carrying amount as a basis for determining whether it is necessary to perform a quantitative goodwill impairment test. If the Company determines that it is more likely than not that the fair value of a reporting unit is less than its carrying amount, then the goodwill impairment test is performed. Impairment tests are performed on a quarterly basis. Management uses the future discounted cash flows valuation approach to determine the fair value of reporting units and determines whether the fair value of reporting units exceeded its carrying amounts. If the fair value exceeds the carrying amount, then no impairment is recognized. If the carrying amount recorded exceeds the fair value calculated, then an impairment charge is recognized for the difference. The impairment review requires management to make judgments in determining various assumptions with respect to revenues, operating margins, growth rates and discount rates. The judgments made in determining the projected cash flows used to estimate the fair value can materially impact the Company's financial condition and results of operations.

Fair Value Measurements

The Company applies ASC 820, *Fair Value Measurement* ("ASC 820"), which establishes a framework for measuring fair value and clarifies the definition of fair value within that framework. ASC 820 defines fair value as an exit price, which is the price that would be received for an asset or paid to transfer a liability in the Company's principal or most advantageous market in an orderly transaction between market participants on the measurement date. The fair value hierarchy established in ASC 820 generally requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. Observable inputs reflect the assumptions that market participants would use in pricing the asset or liability and are developed based on market data obtained from sources independent of the reporting entity. Unobservable inputs reflect the entity's own assumptions based on market data and the entity's judgments about the assumptions that market participants would use in pricing the asset or liability and are to be developed based on the best information available in the circumstances.

The valuation hierarchy is composed of three levels. The classification within the valuation hierarchy is based on the lowest level of input that is significant to the fair value measurement. The levels within the valuation hierarchy are described below:

Level 1 - Assets and liabilities with unadjusted, quoted prices listed on active market exchanges. Inputs to the fair value measurement are observable inputs, such as quoted prices in active markets for identical assets or liabilities.

Level 2 - Inputs to the fair value measurement are determined using prices for recently traded assets and liabilities with similar underlying terms, as well as direct or indirect observable inputs, such as interest rates and yield curves that are observable at commonly quoted intervals.

Level 3 - Inputs to the fair value measurement are unobservable inputs, such as estimates, assumptions, and valuation techniques when little or no market data exists for the assets or liabilities.

Business Acquisitions

The purchase price of an acquisition is allocated to the assets acquired, including intangible assets, and liabilities assumed, based on their respective fair values at the acquisition date. Acquisition-related costs are expensed as incurred. The excess of the cost of an acquired entity, net of the amounts assigned to the assets acquired and liabilities assumed, is recognized as goodwill. The net assets and results of operations of an acquired entity are included on the Company's unaudited condensed consolidated financial statements from the acquisition date (see Note 4).

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Revenue Recognition

Revenue is derived from two primary sources: (a) products and services and (b) software.

The Company recognizes revenue following the five-step model prescribed under ASC 606, *Revenue from Contracts with Customers ("ASC 606")*: (i) identify contract(s) with a customer; (ii) identify the performance obligation(s) in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligation(s) in the contract; and (v) recognize revenue when (or as) the Company satisfies a performance obligation. The Company only applies the five-step model to contracts when it is probable that the Company will collect the consideration it is entitled to in exchange for the products or services it transfers to the customer. These contracts have different terms based on the scope, performance obligations, and complexity of the project, which often requires the Company to make judgments and estimates in recognizing revenues.

Performance obligations are satisfied both at a point of time and over time. All revenue is recognized based on the satisfaction of the performance obligation to date (see Note 5).

Leases

The Company's lease arrangements relate primarily to office and manufacturing space and equipment. The Company's leases generally have initial terms ranging from 2 to 10 years and may include renewal options and rent escalation clauses. The Company is typically required to make fixed minimum rent payments relating to its right to use an underlying leased asset. Additionally, the Company's leases do not contain significantly restrictive covenants or residual value guarantees.

The Company determines if an arrangement is a lease at inception and classifies its leases at commencement. Operating leases are presented as operating lease right-of-use assets, net and the corresponding lease liabilities are included in operating lease liabilities, current and operating lease liabilities, net of current on the Company's unaudited condensed consolidated balance sheets. Finance lease right-of-use assets are presented within property and equipment, net and the corresponding finance lease liabilities are included in finance lease liability, current and finance lease liability, noncurrent on the Company's unaudited condensed consolidated balance sheets. Operating lease right-of-use assets and finance lease right-of-use assets, (collectively "ROU assets") represent the Company's right to use an underlying asset and lease liabilities represent the Company's obligation for lease payments in exchange for the ability to use the asset for the duration of the lease term. The Company does not recognize short term leases that have a term of twelve months or less as ROU assets or lease liabilities. The Company's short-term leases are not material and do not have a material impact on its ROU assets or lease liabilities.

ROU assets and lease liabilities are recognized at commencement date and determined using the present value of the future minimum lease payments over the lease term. The Company uses an incremental borrowing rate based on estimated rate of interest for collateralized borrowing since the Company's leases do not include an implicit interest rate. The estimated incremental borrowing rate considers market data, actual lease economic environment, and actual lease term at commencement date. The lease term may include options to extend when it is reasonably certain that the Company will exercise that option. ROU assets include lease payments made in advance, and excludes any incentives received or initial direct costs incurred. The Company recognizes lease expense on a straight-line basis over the lease term.

The Company has lease agreements which contain both lease and non-lease components, which it has elected to account for as a single lease component. As such, minimum lease payments include fixed payments for non-lease components within a lease agreement, but exclude variable lease payments not dependent on an index or rate, such as common area maintenance, operating expenses, utilities, or other costs that are subject to fluctuation from period to period.

Stock-based Compensation

The Company recognizes stock-based compensation expense for all stock options, restricted stock units and other arrangements within the scope of ASC 718, *Stock Compensation ("ASC 718")*. Stock-based compensation expense is measured at the date of grant, based on the fair value of the award, and is recognized using the straight-line method over the employee's requisite service period. Compensation for stock-based awards with vesting conditions other than service

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are recognized based on the probability of the performance condition being met over the vesting period. Forfeitures are recognized as they are incurred.

Common Stock Warrant Liabilities

The Company evaluates its warrants under ASC 815-40, *Derivatives and Hedging—Contracts in Entity's Own Equity* ("ASC 815-40"). The Private Warrants (as defined in Note 13) previously met the definition of a derivative under ASC 815, and the Company recorded these warrants as liabilities on the unaudited condensed consolidated balance sheets at fair value, with subsequent changes in their respective fair values recognized in the unaudited condensed consolidated statement of operations and comprehensive loss at each reporting date.

In December 2022, the Company and the holders of the Private Warrants entered into letter agreements, pursuant to which such holders agreed that the Private Warrants will be exercisable for cash or on a cashless basis and redeemable on the same terms and subject to the same conditions as the Public Warrants (as defined in Note 13). The Company has therefore concluded that as of June 30, 2023 and December 31, 2022, all its warrants met the criteria to be classified in stockholders' equity.

Research and Development Costs

Research and development expenses consist primarily of allocated personnel costs, fees paid to consultants and outside service providers, and allocations for rent and overhead. Research and development costs are expensed as incurred. Advance payments for goods and services that will be used in future research and development activities are expensed when the activity has been performed or when the goods have been received. For the three months ended June 30, 2023 and 2022, research and development costs were \$2,478 and \$2,355, respectively. For the six months ended June 30, 2023 and 2022, research and development costs were \$,004 and \$4,420, respectively.

Advertising Costs

Advertising costs are expensed as incurred. For the three months ended June 30, 2023 and 2022, advertising costs were \$266 and \$304, respectively. For the six months ended June 30, 2023 and 2022, advertising costs were \$607 and \$854, respectively. Advertising costs are included in selling, general and administrative expense on the unaudited condensed consolidated statements of operations and comprehensive loss.

Income Taxes

The Company files income tax returns in the U.S. federal jurisdiction and various state jurisdictions. Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the estimated future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates in effect for the year in which those temporary differences are expected to be recovered or settled. Where applicable, the Company records a valuation allowance to reduce any deferred tax assets that it determines will not be realizable in the future.

The Company recognizes the benefit of an uncertain tax position that it has taken or expects to take on income tax returns it files if such tax position is more likely than not to be sustained on examination by the taxing authorities, based on the technical merits of the position. These tax benefits are measured based on the largest benefit that has a greater than 50% likelihood of being realized upon ultimate resolution. Although the Company believes that it has adequately reserved for uncertain tax positions (including interest and penalties), it can provide no assurance that the final tax outcome of these matters will not be materially different. The Company makes adjustments to these reserves in accordance with the income tax accounting guidance when facts and circumstances change, such as the closing of a tax audit or the refinement of an estimate. To the extent that the final tax outcome of these matters is different than the amounts recorded, such differences will affect the provision for income taxes in the period in which such determination is made, and could have a material impact on the Company's financial condition and operating results. Carryforward attributes that were generated in tax years prior to those that remain open for examination may still be adjusted by relevant tax authorities upon examination if they either have been, or will be, used in a future period.

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In applying the estimated annual effective tax rate approach prescribed under ASC 740, *Income Taxes*, and based on present evidence and conclusions around the realizability of deferred tax assets, the Company determined that any deferred tax benefits related to the forecasted tax rate and pretax activity during the three and six months ended June 30, 2023 and 2022 are neither more likely than not to be realized in the current year, nor realizable as a deferred tax asset at the end of the year. Therefore, the appropriate amount of income tax benefit to recognize related to deferred tax assets during the three and six months ended June 30, 2023 and 2022 is zero. The Company's effective tax rate was (0.28)% and (0.27)% for the three and six months ended June 30, 2023, respectively and zero percent for the three and six months ended June 30, 2022, respectively. The Company's effective tax rates differ from the applicable statutory tax rate primarily due to the fact that the Company maintains a full valuation allowance against its U.S. deferred tax assets as a result of its historical and current period losses.

Reverse Stock Split

On June 14, 2023, the Company's Board of Directors approved a reverse stock split ratio of 1-for-8 (the "Reverse Stock Split"). On June 22, 2023, the effective date of the Reverse Stock Split, the number of the Company's issued and outstanding shares of common stock decreased from 51,540,172 shares to 6,442,436 shares, net of fractional shares redeemed. The number of authorized shares and par value per common share remained unchanged. No fractional shares were issued as a result of the Reverse Stock Split. Stockholders who would otherwise have been entitled to receive a fractional share received a cash payment in lieu thereof. Prior to the effective date of the Reverse Stock Split, the Company had listed warrants to purchase a total of 18,410,000 shares of Common Stock, with each whole warrant being exercisable for one share of Common Stock at \$11.50 per share. After the effective date of the Reverse Stock Split, every eight shares of Common Stock that may have been purchased pursuant to the warrants immediately prior to the Reverse Stock Split represented one share of Common Stock that may be purchased pursuant to such warrants immediately following the Reverse Stock Split. Correspondingly, the exercise price per share of Common Stock attributable to such warrants was proportionately increased, such that the exercise price immediately following the Reverse Stock Split was \$92.00, which equals the product of eight multiplied by \$11.50, the exercise price per share immediately prior to the Reverse Stock Split. The number of shares of Common Stock subject to the warrants was proportionately decreased by eight times, to an aggregate of 2,301,250 shares.

The share, per share and trading price amounts in the unaudited condensed consolidated financial statements and the accompanying notes, have been retrospectively adjusted to reflect the Reverse Stock Split for all periods presented.

Net loss per Share

In accordance with the provisions of ASC 260, *Earnings Per Share*, net loss per common share is computed by dividing net loss by the weighted-average shares of common stock outstanding during the period. Basic net loss per share is computed by dividing net loss by the weighted average number of shares outstanding during the period. Diluted net loss per share gives effect to all dilutive potential common shares outstanding during the period including stock options and warrants, using the treasury stock method, and convertible debt and convertible securities, using the if-converted method. During a loss period, the effect of the potential exercise of stock options and convertible debt are not considered in the diluted net loss per share calculation since the effect would be anti-dilutive. A reconciliation of net loss and number of shares used in computing basic and diluted net loss per share is as follows:

	<u>Three Months Ended June 30,</u>		<u>Six Months Ended June 30,</u>	
	<u>2023</u>	<u>2022</u>	<u>2023</u>	<u>2022</u>
Basic and Diluted net loss per share computation:				
Numerator for basic and diluted net loss per share:				
Net loss	\$ (6,781)	\$ (4,674)	\$ (14,184)	\$ (8,711)
Denominator for basic and diluted net loss per share:				
Weighted average common shares - basic and diluted	6,835,568	6,633,658	6,756,394	6,615,649
Basic and diluted net loss per share	\$ (0.99)	\$ (0.70)	\$ (2.10)	\$ (1.32)

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The following table presents the outstanding shares of common stock equivalents that were excluded from the computation of the diluted net loss per share for the periods in which a net loss is presented because their effect would have been anti-dilutive:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Common stock warrants ⁽¹⁾	2,301,250	2,301,250	2,301,250	2,301,250
Earnout Shares	438,800	438,800	438,800	438,800
Unvested RSUs	657,137	517,149	657,137	517,149

(1) The number of shares of common stock subject to the warrants was proportionately decreased as a result of the Reverse Stock Split.

Included in net loss per share are 488,148 and 499,153 shares subject to options due to their nominal exercise prices as of June 30, 2023 and 2022, respectively.

Segment Information

The Company operates and reports in one segment, which focuses on providing additive and traditional manufacturing services to customers. The Company's operating segment is reported in a manner consistent with the internal reporting provided to the chief operating decision maker ("CODM"). The Company's CODM has been identified as its Chief Executive Officer. The Company is continually evaluating its operating and reporting segments as it integrates the acquisitions discussed in Note 4, Business Acquisitions.

Recent Accounting Pronouncements

Accounting Pronouncements Recently Adopted and Recently Issued

From time to time, new accounting pronouncements are issued by the FASB or other standard setting bodies that are adopted by the Company as of the specified effective date. The Company has evaluated recently issued accounting pronouncements and does not believe any will have a material impact on the Company's unaudited condensed consolidated financial statements or related financial statement disclosures.

In October 2021, the FASB issued Accounting Standards Update ("ASU") 2021-08, *Business Combinations (Topic 805): Accounting for Contract Assets and Contract Liabilities from Contracts with Customers*. This update requires that an acquirer recognize and measure contract assets and contract liabilities acquired in a business combination in accordance with Topic 606, *Revenue from Contracts with Customers*. This standard is effective for fiscal years and interim periods with those fiscal years beginning after December 15, 2022, and should be applied prospectively to business combinations occurring on or after the effective date of the standard. Early adoption is permitted, including adoption in an interim period. The Company early adopted this guidance on April 22, 2022, and has applied the guidance to business combinations entered into during fiscal 2022.

In June 2016, the FASB issued ASU 2016-13, *Accounting for Credit Losses (Topic 326)*, which requires the use of an "expected loss" model on certain types of financial instruments. The standard also amends the impairment model for available-for-sale debt securities and requires estimated credit losses to be recorded as allowances instead of reductions to amortized cost of the securities. ASU 2016-13 is effective for annual periods beginning after December 15, 2022, including interim periods within those annual periods. The Company has determined that there is no material impact on its unaudited condensed consolidated financial statements due to adoption of this standard.

Note 3. Short-term Investments

As of June 30, 2023, the Company's short-term investments consisted of U.S. Treasury Securities classified as held-to-maturity. Held-to-maturity investments are recorded at amortized cost and adjusted for the amortization or accretion of premiums or discounts. The Company considers all investments with original maturities of 3 months or less to be cash and

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cash equivalents and investments with original maturities of more than three months but less than one year to be short-term investments. The carrying value, excluding gross unrealized holding gains or losses and fair value as of June 30, 2023 and December 31, 2022 were as follows:

June 30, 2023					
	Amortized Cost and Carrying Value		Gross Unrealized Gains	Gross Unrealized Losses	Fair Value June 30, 2023
Classified as Cash and cash equivalents					
U.S. Treasury Securities	\$ 8,957	\$ 3	\$ —		\$ 8,960
Classified as short-term investments					
U.S. Treasury Securities	\$ 9,922	\$ 34	\$ —		\$ 9,956

December 31, 2022					
	Amortized Cost and Carrying Value		Gross Unrealized Gains	Gross Unrealized Losses	Fair Value December 31, 2022
Classified as Cash and cash equivalents					
U.S. Treasury Securities	\$ 19,864	\$ 73	\$ —		\$ 19,937
Classified as short-term investments					
U.S. Treasury Securities	\$ 9,816	\$ 33	\$ —		\$ 9,849

Note 4. Business Acquisitions

Acquisition of MFG.com

On April 22, 2022, the Company completed the acquisition of the outstanding assets of MP2020, Inc. ("MFG.com" or "MFG") under an Asset Purchase Agreement ("MFG Purchase"). MFG.com is expected to help the Company's software strategy by providing an immediate supply chain of a wide range of traditional manufacturing services that its customers can leverage.

The following table summarizes the total consideration for the MFG Purchase:

	April 22, 2022
Cash consideration	\$ 2,700
Holdback consideration	300
Total consideration	\$ 3,000

The holdback consideration represents the portion of the purchase price to be paid within 12 months from the closing date, subject to reduction for certain indemnifications and other potential obligations of the acquired businesses. The holdback consideration was recorded in accrued expenses and other liabilities on the unaudited condensed consolidated balance sheets and was paid January 2023.

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The Company has accounted for the MFG Purchase as a business combination in accordance with ASC Topic 805, *Business Combinations* ("ASC 805"). The following table summarizes the allocation of the purchase price to the estimated fair values of assets acquired and liabilities assumed:

	April 22, 2022
Assets acquired:	
Goodwill	\$ 1,954
Intangible assets	1,604
Other assets	15
Total assets acquired	3,573
Liabilities assumed:	
Deferred revenue	573
Total liabilities assumed	573
Net assets acquired	\$ 3,000

The estimated useful lives of the identifiable intangible assets acquired is as follows:

	Gross Value	Estimated Life (in years)
Customer relationships	\$ 264	10
Trade name	240	10
Acquired software platform	910	10
Customer list	190	3
Total intangible assets	\$ 1,604	

The goodwill will not be deductible for tax purposes. The Company incurred \$212 of transaction costs related to this acquisition, which are included in general and administrative expenses on the unaudited condensed consolidated statements of operations.

The Company has determined that the impact of the MFG Purchase was not material to its consolidated financial statements; therefore, separate presentation of revenue and earnings since the acquisition date and pro forma information are not required nor included herein.

Acquisition of Linear AMS

On May 9, 2022, the Company completed the acquisition of the membership interest of Linear Mold & Engineering, LLC ("Linear AMS" or "Linear") under a Membership Interest Purchase Agreement (the "Linear AMS Purchase"). Linear is expected to help the Company expand its go to market strategy by leveraging Linear's highly technical business development and user application experience and extend its enterprise customer base in key markets.

The following table summarizes the total consideration for the Linear AMS Purchase:

	May 9, 2022
Cash consideration	\$ 6,090
Holdback consideration	800
Earnout consideration liability	2,900
Total consolidation	\$ 9,790

The holdback consideration represents the portion of the purchase price payable 12 months from the closing date, subject to reduction for certain indemnifications and other potential obligations of Linear AMS. The estimated fair value of the

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earnout consideration liability at acquisition was determined using a Monte Carlo simulation based on certain performance metrics for the 12 months ending December 31, 2022. During 2022, the Company recognized a non-cash gain of \$1,824 as a result of the actual revenue performance of Linear for the 12 months ended December 31, 2022. The final earnout consideration liability was paid in cash of \$539 and a non-cash issuance of equity valued at \$537 in April 2023.

The Company has accounted for the Linear AMS Purchase as a business combination in accordance with ASC 805. The following table summarizes the fair values of assets acquired and liabilities assumed as of the acquisition date:

	May 9, 2022
Assets acquired:	
Cash and cash equivalents	\$ 29
Accounts receivable	1,117
Inventory	214
Prepaid expenses	34
Security deposits	92
Property and equipment, net	2,086
Right-of-use assets	2,131
Goodwill	2,497
Intangible assets, net	4,199
Total assets acquired	12,399
Liabilities assumed:	
Accounts payable	308
Accrued expenses and other liabilities	170
Operating lease liability	2,131
Total liabilities assumed	2,609
Net assets acquired	\$ 9,790

The estimated useful lives of the identifiable intangible assets acquired is as follows:

		Estimated Life (in years)
Customer relationships	\$ 2,822	10
Trade name	647	10
Noncompetition agreement	52	2
Favorable operating lease	699	4
Unfavorable operating lease	(21)	4
Total intangible assets	\$ 4,199	

The goodwill will not be deductible for tax purposes. The Company incurred \$61 of transaction costs related to this acquisition, which are included in general and administrative expenses on the unaudited condensed consolidated statements of operations.

The Company has determined that the impact of the Linear AMS Purchase was not material to its consolidated financial statements; therefore, separate presentation of revenue and earnings since the acquisition date and pro forma information are not required nor included herein.

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Acquisition of Maker OS

On April 13, 2022, the Company completed the acquisition of the outstanding assets of Maker OS under an Asset Purchase Agreement ("Maker OS Asset Purchase"). Maker OS is expected to help the Company expand on its manufacturing capabilities and help it build comprehensive ordering services within its software offerings. The total cash consideration paid related to this transaction was \$100.

The Company has accounted for the Maker OS Asset Purchase as an asset purchase and no liabilities were assumed as part of the acquisition. The following table summarizes the fair values of assets acquired as of the acquisition date:

	April 13, 2022
Assets acquired:	
Intangible assets	\$ 100
Total assets acquired	<u>\$ 100</u>

The Company incurred immaterial transaction costs related to the Maker OS Asset Purchase, which are included in selling, general and administrative expenses on the unaudited condensed consolidated statements of operations.

Note 5. Revenue Recognition

Under ASC 606, revenue is recognized throughout the life of the executed agreement. The Company measures revenue based on consideration specified in a contract with a customer. Furthermore, the Company recognizes revenue when a performance obligation is satisfied by transferring control of the product or service to the customer which could occur over time or at a point in time.

A performance obligation is a promise in a contract to transfer a distinct service to the customer. The transaction price of a contract is allocated to each distinct performance obligation and recognized as revenue when or as the customer receives the benefit of the performance obligation. Customers typically receive the benefit of the Company's services as (or when) they are performed. Substantially all customer contracts provide that compensation is received for services performed to date. Taxes assessed by a governmental authority that are both imposed on and concurrent with a specific revenue-producing transaction, that are collected by the Company from a customer, are excluded from revenue.

Nature of Products and Services

The following is a description of the Company's products and services from which the Company generates revenue, as well as the nature, timing of satisfaction of performance obligations, and significant payment terms for each:

Direct sales

The Company provides customers with an additive manufacturing service, allowing for the customer to select the specifications of the model which they wish to have printed. Shapeways prints the 3D model and ships the product directly to the customer.

The Company recognizes the sale of products through its e-commerce website over time using the output method. Contracts involving the sale of products through its e-commerce website do not include other performance obligations. As such, allocation of the transaction price was not necessary as the entire contract price is attributed to the sole performance obligation identified.

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Marketplace sales

The Company provides a platform for shop owners to list their designs through Shapeways' marketplace website. The Company prints the 3D models and ships the product directly to the customer, handling the financial transaction, manufacturing, distribution and customer service on behalf of the shop owners. Judgment is applied to determine whether the Company is the principal or the agent, which could impact the recognition of revenue and cost of revenue within the consolidated statements of operations and comprehensive loss. The Company considers whether it has the primary responsibility for fulfilling the promise to provide the specified product or service to the end user, whether it has inventory risk prior to transferring the product or service to the customer and if the Company has discretion in establishing prices. The Company acts as an agent in these arrangements where it facilitates the sales of the goods and services on behalf of third-party shop owners to end customers. The Company is considered an agent and recognizes revenue generated from these transactions on a net basis since the Company lacks the ability to establish the overall selling price of the goods or services provided to the end user.

The Company recognizes the sale of 3D printed products to customers at a point in time, specifically upon shipping the goods to the customer (FOB Origin) given the transfer of significant risks and rewards of ownership at that point in time. Contracts involving the manufacturing and delivery of 3D printed products to customers do not include other performance obligations. As such, allocation of the transaction price is not necessary as the entire contract price is attributed to the sole performance obligation identified.

Software revenue

The Company launched the first phase of its software offering under the brand "OTTO" in the fourth quarter of 2021. The software enables other manufacturers to leverage Shapeways' existing end-to-end manufacturing software to scale their businesses and shift to digital manufacturing. Shapeways' software offers improved customer accessibility, increased productivity, and expanded manufacturing capabilities for its customers. The Company expanded its software offering's customer base and feature set with the acquisitions of MFG and MakerOS, both completed in April 2022.

For each of the performance obligations classified as software revenue, the performance obligations are satisfied evenly over the term of the contract. For contracts including performance obligations classified as software revenue, the Company identified that each performance obligation has an explicitly stated standalone selling price. As such, allocation is not necessary as the prices included in the contract are attributed to each separate performance obligation.

The following table presents the Company's revenue disaggregated by revenue source:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Major products and service lines:				
Direct sales	\$ 6,422	\$ 6,770	\$ 12,474	\$ 12,444
Marketplace sales	1,307	1,155	2,795	2,980
Software	711	508	1,370	579
Total revenue	\$ 8,440	\$ 8,433	\$ 16,639	\$ 16,003
Timing of revenue recognition:				
Products transferred at a point in time	\$ 1,307	\$ 1,155	\$ 2,795	\$ 2,980
Products and services transferred over time	7,133	7,278	13,844	13,023
Total revenue	\$ 8,440	\$ 8,433	\$ 16,639	\$ 16,003

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Deferred Revenue

The Company records deferred revenue when cash payments are received in advance of performance. Deferred revenue activity consisted of the following:

	June 30, 2023	December 31, 2022
Balance at beginning of the period	\$ 972	\$ 921
Deferred revenue recognized during period	(16,639)	(33,157)
Additions to deferred revenue during period	17,505	33,208
Total deferred revenue	<u>\$ 1,838</u>	<u>\$ 972</u>

The Company expects to satisfy its remaining performance obligations within the next twelve months. The \$972 of deferred revenue as of January 1, 2023 was recognized during the six months ended June 30, 2023. The opening balance of accounts receivable as of January 1, 2022 was \$1,372.

Practical Expedients and Exemptions

The Company applies the practical expedient related to incremental costs of obtaining a contract. Although certain of its commission costs qualify for capitalization under ASC 340-40, *Contracts with Customers*, their amortization period is less than one year. Therefore, utilizing the practical expedient, the Company expenses these costs as incurred.

Note 6. Inventory

Components of inventory consisted of the following:

	June 30, 2023	December 31, 2022
Raw materials	\$ 1,282	\$ 849
Work-in-process	341	209
Finished goods	175	249
Total	<u>\$ 1,798</u>	<u>\$ 1,307</u>

Note 7. Prepaid Expenses and Other Current Assets

Prepaid expenses and other current assets consisted of the following:

	June 30, 2023	December 31, 2022
Prepaid service expenses	\$ 3,176	\$ 3,231
Prepaid expenses	1,959	1,384
VAT receivable	963	990
Prepaid insurance	351	401
Security deposits	—	175
Other current assets	6	74
Total	<u>\$ 6,455</u>	<u>\$ 6,255</u>

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Note 8. Property and Equipment, Net

Property and equipment, net consisted of the following:

	June 30, 2023	December 31, 2022
Machinery and equipment	\$ 11,950	\$ 10,450
Computers and IT equipment	1,144	1,138
Leasehold improvements	2,686	2,429
Furniture and fixtures	107	81
Vehicles	42	42
Assets to be placed in service	10,191	11,749
Property and equipment	26,120	25,889
Less: Accumulated depreciation	(9,415)	(10,262)
Property and equipment, net	<u>\$ 16,705</u>	<u>\$ 15,627</u>

For the three months ended June 30, 2023 and 2022, depreciation expense totaled \$41 and \$253, respectively. For the six months ended June 30, 2023 and 2022, depreciation expense totaled \$594 and \$436, respectively. Of these amounts, depreciation charged to cost of revenue was \$288 and \$217 for the three months ended June 30, 2023 and 2022, respectively and \$516 and \$367 for the six months ended June 30, 2023 and 2022, respectively.

Note 9. Goodwill and Intangible Assets

Changes in the carrying amount of goodwill as of June 30, 2023 and December 31, 2022 are as follows:

	June 30, 2023	December 31, 2022
Balance, beginning of period	\$ 6,286	\$ 1,835
Acquired goodwill	—	4,451
Balance, end of period	<u>\$ 6,286</u>	<u>\$ 6,286</u>

The Company had no accumulated impairment losses on goodwill during the three and six months ended June 30, 2023 and 2022.

Intangible assets consisted of the following as of June 30, 2023:

	Gross carrying amount	Accumulated amortization	Intangible assets, net	Weighted average amortization period (in years)
Customer relationships	\$ 3,086	\$ (360)	\$ 2,726	10
Trade name	987	(115)	872	10
Acquired software platform	910	(106)	804	10
Customer lists	190	(74)	116	3
Noncompetition agreement	52	(30)	22	2
Favorable operating lease	699	(204)	495	4
Unfavorable operating lease	(21)	6	(15)	4
Total intangible assets, net	<u>\$ 5,903</u>	<u>\$ (883)</u>	<u>\$ 5,020</u>	

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Intangible assets consisted of the following as of December 31, 2022:

	Gross carrying amount	Accumulated amortization	Intangible assets, net	Weighted average amortization period (in years)
Customer relationships	\$ 3,086	\$ (206)	\$ 2,880	10
Trade name	987	(66)	921	10
Acquired software platform	910	(61)	849	10
Customer lists	190	(42)	148	3
Noncompetition agreement	52	(17)	35	2
Favorable operating lease	699	(117)	582	4
Unfavorable operating lease	(21)	4	(17)	4
Total intangible assets, net	<u>\$ 5,903</u>	<u>\$ (505)</u>	<u>\$ 5,398</u>	

The Company recognized \$189 and \$123 of amortization expense during the three months ended June 30, 2023 and 2022, respectively and \$378 and \$123 of amortization expense during the six months ended June 30, 2023 and 2022, respectively. The Company estimates the future aggregate amortization expense related to its intangible assets as of June 30, 2023 will be as follows:

	Amortization expense
Remainder of 2023	\$ 379
2024	740
2025	689
2026	555
2027	498
Thereafter	2,159
Total	<u>\$ 5,020</u>

Note 10. Accrued Expenses and Other Liabilities

Accrued expenses and other liabilities consisted of the following:

	June 30, 2023	December 31, 2022
Accrued compensation	\$ 1,524	\$ 1,504
Holdback consideration	800	1,100
Accrued selling expenses	551	487
Taxes payable	213	339
Accrued acquisition of property and equipment	39	225
Earnout consideration liability	—	1,076
Other accrued expenses and other liabilities	834	1,219
Total	<u>\$ 3,961</u>	<u>\$ 5,950</u>

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Note 11. Commitments and Contingencies

Leases

During the three and six months ended June 30, 2023, the Company maintained six leases of facilities located in the United States and the Netherlands, as well as one lease of equipment classified as a finance lease. In addition, the Company has two failed sale-leaseback transactions that have been recorded as finance obligations within its unaudited condensed consolidated balance sheets. See Note 12 for additional information.

The table below presents certain information related to the Company's lease costs:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Operating lease expense	\$ 248	\$ 243	\$ 500	\$ 385
Finance lease expense	11	—	19	—
Interest expense on finance lease liabilities	5	—	9	—
Total lease cost	<u>\$ 264</u>	<u>\$ 243</u>	<u>\$ 528</u>	<u>\$ 385</u>

The Company recorded sublease income of \$57 and \$34 during the three months ended June 30, 2023 and 2022, respectively and \$59 and \$34 during the six months ended June 30, 2023 and 2022, respectively. The sublease income is associated with the Company's sublease of its facility in Michigan.

Right-of-use assets and lease liabilities for operating leases were recorded in the unaudited condensed consolidated balance sheets as follows:

	June 30, 2023	December 31, 2022
Assets:		
Operating lease right-of-use assets, net	\$ 2,162	\$ 2,365
Finance lease right-of-use assets, net	231	—
Total lease assets	<u>\$ 2,393</u>	<u>\$ 2,365</u>
Liabilities:		
Current liabilities:		
Operating lease liabilities, current	\$ 848	\$ 719
Finance lease liability, current	44	—
Non-current liabilities:		
Operating lease liabilities, net of current portion	1,408	1,715
Finance lease liability, net of current portion	189	—
Total lease liability	<u>\$ 2,489</u>	<u>\$ 2,434</u>

The Company's lease agreements do not state an implicit borrowing rate, therefore, an internal incremental borrowing rate was determined based on information available at the lease commencement date for the purposes of determining the present value of lease payments. The incremental borrowing rate reflects the cost to borrow on a securitized basis in each market. The weighted-average remaining lease term for operating and finance leases was 2.55 years and 4.58 years, respectively and the weighted-average incremental borrowing rate for operating and finance leases was 6.88% and 8.06%, respectively, as of June 30, 2023.

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Supplemental cash flow information related to the Company's leases was as follows:

	Six Months Ended June 30,	
	2023	2022
Operating cash flows from operating leases	\$ 480	\$ 423
Financing cash flows from finance leases	\$ 27	\$ —
Lease liabilities arising from obtaining right-of-use assets	\$ 495	\$ —

As of June 30, 2023, future minimum lease payments required under operating and finance leases are as follows:

	Operating Leases	Finance Leases
Rest of 2023	\$ 484	\$ 30
2024	968	61
2025	791	61
2026	237	61
2027	—	61
Thereafter	—	5
Total minimum lease payments	2,480	279
Less effects of discounting	(224)	(46)
Present value of future minimum lease payments	\$ 2,256	\$ 233

Desktop Metal

On March 26, 2021, the Company entered into a non-binding Memorandum of Understanding ("MOU") with Desktop Metal, pursuant to which Desktop Metal agreed to invest \$20.0 million in the PIPE Investment. Upon consummation of this investment, the Company became obligated to purchase \$20.0 million of equipment, materials and services from Desktop Metal. In conjunction with these obligations, the Company and Desktop Metal agreed to develop a strategic partnership. As of June 30, 2023, the Company had paid \$16.4 million to Desktop Metal for equipment, materials and services received and placed purchase orders for another \$3.6 million of equipment, materials and services to be purchased under the MOU. The timing of payments for these purchase orders may depend on a number of factors, including Desktop Metal's inventory management and logistics systems and the Company's ability to take delivery of any such equipment, materials and services. The Company has no further obligations under the MOU.

Legal Proceedings

The Company is involved in various legal proceedings which arise from time to time in the normal course of business. While the results of such matters generally cannot be predicted with certainty, management does not expect any such matters to have a material adverse effect on the Company's unaudited condensed consolidated financial position or results of operations as of June 30, 2023 and December 31, 2022 and for the three and six months ended June 30, 2023 and 2022, respectively.

Note 12. Financing Obligations

During February and March 2023, the Company entered into two lease transactions with Rabo Lease BV ("Rabo"), whereby it sold equipment to Rabo and leased back the equipment for an initial term of four years. The Company concluded that the lease arrangements would be classified as a lease financing obligation as it has the option to repurchase the assets at a fixed price at the end of the term. Therefore, the transactions were each deemed a failed sale-leaseback and were accounted for as a financing obligation. The assets continue to be depreciated over their useful lives, and payments are allocated between interest expense and repayment of the financing obligation. The assets under failed sale-leaseback

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transactions are included within property and equipment, net on the Company's unaudited condensed consolidated balance sheets and the proceeds from the transactions are recorded as a financing obligation.

The weighted average interest rate of 20.5% was used to impute interest on the failed sale-leaseback transactions. Interest expense recognized for the three and six months ended June 30, 2023 was \$25 and \$41, respectively.

As of June 30, 2023, future financing obligation payments are as follows:

	Finance Obligations
Rest of 2023	\$ 67
2024	135
2025	135
2026	135
2027	13
Total payments	485
Less: imputed interest	(299)
Financing obligation at end of term	301
Total financing obligations	\$ 487

Note 13. Stockholders' Equity

Common Stock

Upon closing of the Business Combination, pursuant to the terms of the Certificate of Incorporation, the Company authorized 120,000,000 shares of Common Stock with a par value \$0.0001. The holders of Common Stock are entitled to one vote per share on all matters submitted to the stockholders for their vote or approval and are entitled to receive dividends, as and if declared by the Board of Directors out of legally available funds.

The Company has issued and outstanding 6,442,436 and 6,180,646 shares of Common Stock as of June 30, 2023 and December 31, 2022, respectively.

Public Warrants

Prior to the Merger, the Company had outstanding 13,800,000 warrants entitling the holder to exercise eight warrants to purchase one share of common stock of the Company at an exercise price of \$92.00 per share (the "Public Warrants"). The Public Warrants became exercisable 30 days after the Closing Date, and expire five years after the Closing Date or earlier upon redemption or liquidation.

The Company may redeem the Public Warrants as follows: in whole and not in part; at a price of \$0.01 per warrant; at any time while the Public Warrants are exercisable, upon not less than 30 days' prior written notice of redemption to each Public Warrant holder; if, and only if, the reported last sale price of the Company's common stock equals or exceeds \$144.00 per share, for any 20 trading days within a 30-trading day period ending on the third business day prior to the notice of redemption to the warrant holders; and if, and only if, there is a current registration statement in effect with respect to the common stock underlying such warrants at the time of redemption and for the entire 30-day trading period referred to above and continuing each day thereafter until the date of redemption. Certain of these conditions have not been met to redeem the Public Warrants. If the Company calls the Public Warrants for redemption, management will have the option to require all holders that wish to exercise the Public Warrants to do so on a "cashless basis," as described in the warrant agreement.

The Company had outstanding 4,110,000 private warrants that were issued upon the consummation of the initial public offering of Galileo (the "Private Warrants"). Additionally, at the Closing, a lender holding a convertible note issued by the

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Company with an aggregate principal amount of \$500 converted the note into 500,000 sponsor warrants exercisable for common stock at a purchase price of \$1.00 per warrant (the "Sponsor Warrants"), with terms equivalent to the Private Warrants. The Sponsor Warrants are no longer held by the initial purchaser or any of its permitted transferees, and therefore have terms equivalent to the Public Warrants. In December 2022, the Company and the holders of the Private Warrants entered into letter agreements, pursuant to which such holders agreed that the Private Warrants will be exercisable for cash or on a cashless basis and redeemable on the same terms and subject to the same conditions as the Public Warrants.

There were 18,410,000 warrants outstanding, representing 2,301,250 shares subject to warrants, as of June 30, 2023 and December 31, 2022.

Note 14. Stock-Based Compensation

2010 Stock Plan

Prior to the Business Combination, Legacy Shapeways maintained its 2010 Stock Plan (the "2010 Plan"), under which Legacy Shapeways granted statutory and non-statutory stock to employees, outside directors and consultants. The maximum number of shares of common stock that was issuable under the 2010 Plan was 2,117,818 shares.

In connection with the Business Combination, each Legacy Shapeways stock option that was outstanding immediately prior to Closing, whether vested or unvested, was converted into an option to acquire a number of shares of common stock (each such option, an "Exchanged Option") equal to the product of (i) the number of shares of Legacy Shapeways common stock subject to such Legacy Shapeways option immediately prior to the Business Combination and (ii) 90% of the recapitalization conversion ratio of 0.8293 established in the Merger (the "Conversion Ratio"), at an exercise price per share (rounded up to the nearest whole cent) equal to (A) the exercise price per share of such Legacy Shapeways option immediately prior to the consummation of the Business Combination, divided by (B) 90% of the Conversion Ratio. Except as specifically provided in the Business Combination Agreement, following the Business Combination, each Exchanged Option will continue to be governed by the same terms and conditions (including vesting and exercisability terms) as were applicable to the corresponding former Legacy Shapeways option immediately prior to the consummation of the Business Combination. All stock option activity was retroactively restated to reflect the Exchanged Options.

In addition, each holder of an in-the-money Legacy Shapeways option held by individuals remaining in continuous service to the Company through the Closing, was granted a right to receive an award of restricted stock units denominated in shares of common stock granted under the 2021 Plan (each, an "Earnout RSU") equal to the product of (A) the number of shares of Legacy Shapeways common stock that were subject to the option immediately prior to Closing, multiplied by (B) ten percent (10%) of the Conversion Ratio. The Earnout RSUs are subject to substantially the same service-based vesting conditions and acceleration provisions as applied to the Legacy Shapeways option provided that, in addition to such service-based vesting conditions, Earnout RSUs will be subject to vesting and forfeiture conditions based upon the dollar volume-weighted price of the Company's common stock reaching certain targets (the "RSU Performance Milestones"). The Company records stock compensation expense for Earn-Out RSUs based upon an assessment of the grant date fair value using the Monte Carlo valuation model in accordance with FASB ASC 718. The Company did not grant any additional Earn-Out RSUs during the three and six months ended June 30, 2023.

Upon the Closing of the Business Combination, the outstanding and unexercised Legacy Shapeways options became options to purchase an aggregate of 12,650 shares of the Company's common stock under the 2010 Plan at an average exercise price of \$4.96 per share.

2021 Equity Incentive Plan

Upon the closing of the Business Combination, the Company adopted the 2021 Equity Incentive Plan (the "2021 Plan"). The 2021 Plan permits the granting of incentive stock options, restricted stock awards, other share-based awards or other cash-based awards to employees, consultants, and non-employee directors. On the first day of each calendar year, beginning on January 1, 2022 and continuing until (and including) January 1, 2031, the number of shares available under the 2021 Plan will automatically increase by a number equal to the lesser of (a) five percent (5%) of the total number of

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shares of the Company's common stock issued and outstanding on December 31 of the calendar year immediately preceding the date of such increase and (b) a number of shares of our common stock determined by the Company's Board of Directors. As of June 30, 2023, 1,565,630 shares of common stock are authorized for issuance pursuant to awards under the 2021 Plan. Any shares of common stock related to awards that are forfeited, cancelled, terminated, expire or shares withheld by the Company to satisfy tax withholding obligations or to pay any exercise price are deemed available for issuance under the 2021 Plan. As of June 30, 2023, 593,873 shares remain available for issuance under the 2021 Plan.

2022 New Employee Equity Incentive Plan

In September 2022, the Company adopted the 2022 New Employee Equity Incentive Plan (the "2022 Plan"). The 2022 Plan permits the granting of restricted stock awards, stock options and other share-based rewards to individuals who were not previously employees of the Company, as an inducement material to the individual's entry into employment with the Company within the meaning of Listing Rule 303A.08 of the New York Stock Exchange ("NYSE"). The 2022 Plan was adopted by the Board of Directors without stockholder approval pursuant to NYSE Listing Rule 303A.08 (which was the stock exchange on which the Company's securities were then trading). As of June 30, 2023, 625,000 shares of common stock are authorized for issuance pursuant to awards under the 2022 Plan. Any shares of common stock related to awards that are forfeited, cancelled, terminated, expire or shares withheld by the Company to satisfy tax withholding obligations or to pay any exercise price are deemed available for issuance under the 2022 Plan. As of June 30, 2023, 429,459 shares remain available for issuance under the 2022 Plan.

Option Awards

The Company accounts for share-based payments pursuant to ASC 718 and, accordingly, the Company records stock compensation expense for share-based awards based upon an assessment of the grant date fair value for stock options using the Black-Scholes option pricing model. Due to its limited trading history, the Company lacks company-specific historical and implied volatility information. Therefore, it estimates its expected stock volatility based on the historical volatility of a publicly traded set of peer companies. Due to the lack of historical exercise history, the expected term of the Company's stock options for employees has been determined utilizing the "simplified" method for awards. The risk-free interest rate is determined by reference to the U.S. Treasury yield curve. Expected dividend yield is zero based on the fact that the Company has never paid cash dividends and does not expect to pay any cash dividends in the foreseeable future.

The fair value of stock options under the Black-Scholes model requires management to make assumptions regarding projected employee stock option exercise behaviors, risk-free interest rates, volatility of the Company's stock price and expected dividends. The Company generally recognizes stock compensation expense on the grant date and over the period of vesting or period that services will be provided. There were 375,168 stock options granted during six months ended June 30, 2023. There were no stock options granted during the six months ended June 30, 2022.

The assumptions used to estimate the fair value of stock options granted during the periods presented were as follows:

	Six Months Ended June 30, 2023
Strike price	\$2.64 - \$3.40
Expected term (in years)	6.25
Expected volatility	110.67% - 122.89%
Risk-free interest rate	3.79% - 4.02%
Dividend yield	— %

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The following table summarizes the Company's stock option activity during the period presented:

	Shares Underlying Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value
Outstanding as of January 1, 2023	497,402	\$ 5.16	5.67	
Granted	—	—		
Forfeited	(2,287)	3.78		
Exercised	(32)	3.92		
Outstanding at March 31, 2023	495,083	5.16	4.37	
Granted	375,168	2.74		
Forfeited	(12,294)	2.88		
Exercised	—	—		
Outstanding at June 30, 2022	<u>857,957</u>	\$ 4.14	6.55	\$ 374
Exercisable at June 30, 2023	<u>488,148</u>	\$ 5.18	4.10	\$ 1

The aggregate intrinsic value in the above table is calculated as the difference between fair value of the Company's common stock price and the exercise price of the stock options. As of June 30, 2023, approximately \$584 of unrecognized compensation expense related to non-vested awards is expected to be recognized over the weighted average period of 3.48 years.

Restricted Stock Units

The following table summarizes the Company's restricted stock unit activity during the period presented:

	Restricted Stock Units	Weighted Average Grant Fair Value per Share	Aggregate Intrinsic Value
Outstanding as of January 1, 2023	870,126	\$ 12.08	
Granted	10,901	4.56	
Forfeited	(79,218)	7.52	
Settled	(20,475)	25.44	
Outstanding at March 31, 2023	781,334	12.40	
Granted	30,573	3.30	
Forfeited	(35,825)	8.89	
Settled	(118,945)	12.75	
Outstanding at June 30, 2023	<u>657,137</u>	\$ 12.00	\$ 2,471

The total fair value of restricted stock unit awards settled during the six months ended June 30, 2023 was \$,037. The total restricted stock unit awards settled include 34,058 shares withheld for employee tax liability.

Total unrecognized compensation expense related to outstanding restricted stock unit awards was approximately \$,626 as of June 30, 2023 and is expected to be recognized over the weighted average period of 2.83 years.

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2021 Employee Stock Purchase Plan

Upon the closing of the Business Combination, the Company adopted the 2021 Employee Stock Purchase Plan (the “ESPP”). The purpose of the ESPP is to provide eligible employees with an opportunity to increase their proprietary interest in the success of the Company by purchasing common stock from the Company on favorable terms and to pay for such purchases through payroll deductions or other approved contributions. As of June 30, 2023, 172,749 shares of common stock are available for purchase under the ESPP. As of June 30, 2023, the Company had not launched the ESPP and thus no shares have been purchased under the ESPP.

Note 15. Fair Value Measurements

Fair value measurements discussed herein are based upon certain market assumptions and pertinent information available to management as of June 30, 2023 and December 31, 2022. The carrying amounts of accounts receivable, inventory, prepaid expenses and other current assets, accounts payable, accrued expenses and other liabilities, and deferred revenue approximated fair value as they are short term in nature. The fair value of warrants issued for settlement and services is estimated based on the Black-Scholes model. The carrying value of the Company’s debt and operating lease liabilities approximated its fair value, as the obligation bears interest at rates currently available for debt with similar maturities and collateral requirements.

Fair Value on a Recurring Basis

The Company follows the guidance in ASC 820 for its financial assets and liabilities that are re-measured and reported at fair value at each reporting period, and non-financial assets and liabilities that are re-measured and reported at fair value at least annually. The estimated fair value of the warrant liabilities represents Level 3 measurements. The following table presents information about the Company’s liabilities that are measured at fair value on a recurring basis at June 30, 2023 and December 31, 2022, and indicates the fair value hierarchy of the valuation inputs the Company utilized to determine such fair value:

Description	Level	June 30, 2023	December 31, 2022
Assets:			
Marketable securities - U.S Treasury Securities	2	\$ 18,879	\$ 29,680
Liabilities:			
Earnout consideration liability	3	\$ —	\$ 1,076

Earnout Consideration Liability

There was no change in the fair value of the earnout consideration liability during the three and six months ended June 30, 2023 and June 30, 2022. The final earnout consideration liability was paid in cash of \$539 and a non-cash issuance of equity valued at \$537 in April 2023.

Warrant Liabilities

In December 2022, the Company and the holders of the Private Warrants entered into letter agreements, pursuant to which such holders agreed that the Private Warrants will be exercisable for cash or on a cashless basis and redeemable on the same terms and subject to the same conditions as the Public Warrants. As a result of these letter agreements, there was no change in fair value of warrant liabilities recognized for the three and six months ended June 30, 2023.

For the three and six months ended June 30, 2022, the Company recognized income resulting from a change in the fair value of warrant liabilities of \$65 and \$1,527, respectively.

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Fair Value on a Non-Recurring Basis

At the Closing, there were 438,800 shares of common stock issued as part of the Merger consideration (the “Earnout Shares”) subject to vesting and forfeiture conditions (the “Earnout Terms”) based upon the volume-weighted average trading price of common stock reaching targets of \$112.00 and \$128.00, respectively (with 50% released at each target) for a period of 30 consecutive trading days during the three-year period after the Closing, with the portion of such shares that would otherwise be deliverable to Legacy Shapeways stockholders at the Closing being withheld and deposited into escrow. The fair value of the Earnout Shares was estimated using the trading price of the common stock at Closing (\$61.60), discounted based on the probability of the Earnout Terms being met as determined at Closing, and thus represents a Level 2 fair value measurement as defined in ASC 820. The Earnout Shares, if achieved, would be issued to Legacy Shapeways stockholders. The Earnout Shares are a fixed number of shares to be issued to such stockholders on a pro rata basis. The fair value of the Earnout Shares was recognized as a deemed dividend. Upon closing of the Merger, the estimated fair value of the Earnout Shares was \$18,132 with such amount recognized as a deemed dividend. As the Company was in an accumulated deficit position as of the measurement date, the resulting deemed dividend was recorded as a reduction of additional paid-in capital with a corresponding offset recorded to additional paid-in capital. As of June 30, 2023, there were 438,800 Earnout Shares unvested and remaining subject to the Earnout Terms.

Note 16. Significant Concentrations

One customer accounted for approximately 17% and 20% of revenue for the three months ended June 30, 2023 and 2022, respectively. No other customers represented more than 10% of revenue for the three months ended June 30, 2023 and 2022.

One customer accounted for approximately 18% and 21% of revenue for the six months ended June 30, 2023 and 2022, respectively. No other customers represented more than 10% of revenue for the six months ended June 30, 2023 and 2022.

No vendor accounted for more than 10% of purchases for the six months ended June 30, 2023. One vendor accounted for 9% of purchases for the six months ended June 30, 2022. No other vendors represented more than 10% of purchases for the six months ended June 30, 2022.

As of June 30, 2023, two customers accounted for approximately 14% and 10% of accounts receivable. As of December 31, 2022, two customers accounted for approximately 17% and 16% of accounts receivable. No other customers represented more than 10% of outstanding accounts receivable as of June 30, 2023 and December 31, 2022.

As of June 30, 2023, no vendor accounted for more than 10% of accounts payable. As of December 31, 2022, one vendor accounted for approximately 10% of accounts payable. No other vendors represented more than 10% of outstanding accounts payable balance as of December 31, 2022.

Note 17. Subsequent Events

The Company has evaluated all known subsequent events through August 14, 2023, which is the date these unaudited condensed consolidated financial statements were issued.

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 provides information that management believes is relevant to an assessment and understanding of our consolidated results of operations and financial condition and changes in financial condition. You should read the following discussion and analysis of financial condition and results of operations together with the accompanying unaudited condensed consolidated financial statements and the related notes to those statements of Shapeways included in this Report and the audited financial statements and notes thereto as of and for the year ended December 31, 2022 which is contained in our Annual Report on Form 10-K/A filed with the Securities and Exchange Commission (“SEC”) on August 4, 2023. Some of the information contained in this discussion and analysis or set forth elsewhere in this Report, including information with respect to our plans and strategy for our business and related financing contains forward-looking statements that involve risks and uncertainties. See “Special Note Regarding Forward-Looking Statements” and “Risk Factors” for a discussion of forward-looking statements and important factors that could cause actual results to differ materially from those anticipated in these forward-looking statements. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance, or achievements. Except as required by law, we do not intend to update any of these forward-looking statements after the date hereof or to conform these statements to actual results or revised expectations.

Company Overview

Shapeways is a leading digital manufacturer combining high quality, flexible, on-demand manufacturing with purpose-built proprietary software to offer customers an end-to-end digital manufacturing platform on which they can rapidly transform digital designs into physical products. Our manufacturing platform offers customers access to high quality manufacturing from start to finish through automation, innovation, and digitization. Our proprietary software, wide selection of materials and technologies, and global supply chain lower manufacturing barriers and accelerate delivery of manufactured parts from prototypes to finished end parts. We combine deep digital manufacturing know-how and software expertise to deliver high quality, flexible on-demand digital manufacturing to a range of customers, from project-focused engineers to large enterprises. Digital manufacturing is the complete digitization of the end-to-end manufacturing process that enables the transition of a digital file to a physical product.

Recent Developments

On July 20, 2023, we issued a press release reporting that we would voluntarily transfer the listing of its securities to The Nasdaq Global Market (“Nasdaq”). Our common stock and warrants began trading on Nasdaq at market open on August 1, 2023 under the ticker symbols “SHPW” and “SHPWW,” respectively.

Key Factors Affecting Operating Results

We believe that our performance and future success depend on many factors that present significant opportunities for us but also pose risks and challenges, including the following:

Commercial Launch of Offerings

We plan to continue to launch new manufacturing technologies, materials, and finishes. Prior to commercialization, we must complete testing and manufacturing ramp-up either in house or through our network of third-party manufacturing partners. Any delays in the successful completion of these steps or the results of testing may impact our ability or the pace at which we will generate revenue from these offerings. Even if we successfully introduce these new offerings, there is no assurance that they will be accepted by the broader market.

In April 2022 we acquired MFG.com (“MFG”) and MakerOS, Inc. (“MakerOS”), which we believe will help further our software strategy and are expected to help accelerate the phased rollout of our software offering, OTTO. We believe that offering our OTTO software to other manufacturers will enable us to generate future revenue. We expect to further commercialize our software, which we expect will provide software customers with an end-to-end software for their manufacturing operations and expand the manufacturing capabilities that they offer to their customers. We have seen an increase in revenues from sales of our software to date, however, it may never scale to our expectations. In July 2023, we announced the launch of a 3D Model Viewer for our software offering deployed via the MFG brand. This feature is available for manufacturers on the MFG.com platform, and is intended to accelerate and improve the quoting process. The

3D Model Viewer provides manufacturers with a unified platform and the latest technology for viewing 3D models of custom parts, which streamlines the quoting process, and allows for greater accuracy and speed. In addition to providing multiple benefits for manufacturers, the enhanced 3D capability also streamlines the purchasing experience for buyers because they can receive faster, more precise quotes.

In August 2023, we announced a further expansion of our software offerings with the launch of MFG Materials. This new service provides a range of raw materials to manufacturers at discounted rates, reinforcing our role as a comprehensive partner in the manufacturing sector through our MFG brand. Through strategic partnerships and negotiations with top-tier raw materials vendors, we provide discounted rates from list prices on the MFG Materials platform, which vary based on material and quantity ordered.

Adoption of Our Digital Manufacturing Solutions

We believe that the market is shifting toward digitization of manufacturing and approaching an inflection point in the overall adoption of digital manufacturing solutions. We believe that we are well-positioned to take advantage of this market opportunity across an array of industries due to our platform that combines high-quality, flexible, on-demand manufacturing with purpose-built proprietary software. We expect that our results of operations, including revenue and gross margins, will fluctuate for the foreseeable future as businesses continue to shift away from traditional manufacturing processes towards digital manufacturing. The degree to which current and potential customers recognize the benefits of the digitization of manufacturing, and then use our solutions in particular will affect our financial results.

Pricing, Product Cost and Margins

To date, the majority of our revenue has been generated by the manufacturing and sales of additively-manufactured end parts.

Software and manufacturing pricing may vary due to market-specific supply and demand dynamics, customer order size, and other factors. Sales of certain products, such as software, have, or are expected to have, higher gross margins than others. As a result, our financial performance depends, in part, on the mix of offerings we sell during a given period. Our financial performance could also be affected by our level of acquisition activity and the timing of any such transactions and could impact the amount of additional revenue we receive in a particular period, as well as gross margins and operating expenses. In addition, we are subject to price competition, and our ability to compete in key markets will depend on the success of our investments in our offerings, and on cost improvements as well as on our ability to efficiently and reliably introduce cost-effective digital manufacturing solutions for our customers.

Continued Investment and Innovation

We believe that we are a leader in digital manufacturing solutions, offering high-quality, flexible, on-demand manufacturing coupled with purpose-built proprietary software. Our performance is significantly dependent on the investment we make in our software development efforts and in new digital manufacturing technologies. It is essential that we continually identify and respond to rapidly evolving customer requirements, develop and introduce innovative new offerings, enhance existing solutions and generate customer demand for our offerings. We believe that investment in our digital manufacturing solutions will contribute to long-term revenue growth but, depending on the level of such investment, may adversely affect near-term profitability.

We have also invested, and plan to continue to invest, in increasing our customer focus on middle market and enterprise opportunities, including by hiring business development personnel. We believe we will start to benefit from these investments in the coming quarters, but we expect to continue experiencing near-term impact on our gross margins as we continue to invest in this strategy. Our customer count may continue to decline as we increase our focus on middle market and enterprise opportunities. Additionally, these businesses involve risks that may not be present with smaller customers, including longer sales cycles, which create difficulties in assessing deal cyclicity and may cause our revenue and operating results to vary significantly in future periods.

Raw Material, Inflation, and Supply Chain Trends

Inflationary factors such as increases in the costs of raw materials, packaging materials, purchased product, energy costs, shipping costs and labor costs affect our operating results and financial condition. The ongoing impact of the Russian invasion of Ukraine, geopolitical tensions between the United States and China and other supply and labor disruptions along with inflationary factors could have a material impact on our future costs and thus a material adverse effect on our financial condition and results of operations in the future. Although we make efforts to minimize the impact of inflationary factors which may include raising prices to our customers in the future, a high rate of pricing volatility associated with raw materials used in our products may have an adverse effect on our operating results. We will continue to work closely with our suppliers and customers, leveraging our global capabilities and expertise to work through supply and other resulting issues.

Components of Results of Operations

Revenue

The majority of our revenue results from the sales of products that we manufacture for customers, which is designated as “Direct Sales.” During the six months ended June 30, 2023 and 2022, approximately 75% and 78% of our revenue was designated as Direct Sales, respectively. We recognize the sale of our products through our e-commerce website over time.

During the six months ended June 30, 2023 and 2022, approximately 17% and 19% of our revenue was designated as “Marketplace Sales,” respectively. This revenue is from our customers who sell products that we manufacture for them through our e-commerce website.

Software revenue is recognized (i) upon implementation for implementation fees, (ii) ratably over the term of the agreement for licensing fees, and (iii) upon order processing for the revenue-sharing component of our arrangements. To date, we have not recognized a material amount of revenue from software since this product offering has been limited to only design partners as we developed the complete product offering. We launched the first phase of this offering more broadly under the brand OTTO in the fourth quarter of 2021 and expect to roll out additional phases of our software offering over the next several years. This phase of the software offering provides a limited ordering service for additive manufacturing capabilities fulfilled by us.

Cost of Revenue

Our cost of revenue consists of the cost to produce manufactured products and related services. Cost of revenue includes machine costs, material costs, rent costs, personnel costs, and other costs directly associated with manufacturing operations in our factories as well as amounts paid to our third-party contract manufacturers and suppliers. Our cost of revenue also includes depreciation and amortization of equipment, cost of spare or replacement machine parts, machine service costs, shipping and handling costs, and some overhead costs.

Gross Profit and Gross Margin

Our gross profit and gross margin are, or may be, influenced by a number of factors, including:

- Market conditions that may impact our pricing;
- Product mix changes between established manufacturing product offerings and new manufacturing and software product offerings;
- Mix changes between products we manufacture in house and through outsourced manufacturers;
- Our cost structure, including rent, materials costs, machine costs, labor rates, and other manufacturing operations costs;
- Our level of investment in new technologies; and
- Our level of acquisition activity and the timing of any such transaction.

Selling, General and Administrative

Selling, general and administrative (“SG&A”) expenses consist primarily of employee-related costs for individuals working in our sales and marketing departments, third party consultants and vendors, marketing costs such as search engine marketing and search engine optimization and other advertising costs, as well as personnel-related expenses associated with our executive, finance and accounting, legal, human resources, and supply chain functions, as well as professional fees for legal, audit, accounting and other consulting services along with administrative costs of doing business which include, but are not limited to, rent, utilities, and insurance.

Research and Development

Our research and development expenses consist primarily of employee-related personnel expenses, consulting and contractor costs, and software and subscription services used by our research and development personnel, data center, and other technology costs and are typically expensed as incurred.

Change in Fair Value of Warrant Liabilities

Change in fair value of warrant liabilities is a non-cash gain or loss impacted by the fair value of the Private Warrants assumed pursuant to the Merger (as defined in Note 1 to our unaudited condensed consolidated financial statements included elsewhere in this Report). In December 2022, we entered into letter agreements with the holders of the Private Warrants, pursuant to which such holders agreed that the Private Warrants will be exercisable for cash or on a cashless basis and redeemable on the same terms and subject to the same conditions as the Public Warrants. As a result, we do not expect to report changes in fair value of warrant liabilities going forward.

Interest Expense

Interest expense consists primarily of interest expense associated with our finance lease and other finance obligations.

Interest Income

Interest income primarily consists of interest earned on our investments in marketable securities.

Other Income

Other income primarily consists of rental income associated with our sublease of our facility in Michigan.

Income Tax Expense (Benefit)

We file consolidated income tax returns in the United States and in various state jurisdictions. Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the estimated future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates in effect for the year in which those temporary differences are expected to be recovered or settled. Where applicable, we record a valuation allowance to reduce any deferred tax assets that it determines will not be realizable in the future.

Due to our cumulative losses, we maintain a valuation allowance against our U.S. and state deferred tax assets. We have provided a valuation allowance for all of our deferred tax assets as a result of our historical net losses in the jurisdictions in which we operate. We continue to assess our future taxable income by jurisdiction based on our recent historical operating results, the expected timing of reversal of temporary differences, various tax planning strategies that we may be able to enact in future periods, the impact of potential operating changes on our business and our forecast results from operations in future periods based on available information at the end of each reporting period. To the extent that we are able to reach the conclusion that deferred tax assets are realizable based on any combination of the above factors in a single, or multiple, taxing jurisdictions, a reversal of the related portion of our existing valuation allowances may occur.

Results of Operations

Comparison of the Three Months Ended June 30, 2023 and 2022

Revenue

(Dollars in thousands)	Three Months Ended June 30,		Change	
	2023	2022	\$	%
Revenue	\$ 8,440	\$ 8,433	\$ 7	—%

Revenue for each of the three months ended June 30, 2023 and 2022 was \$8.4 million. Revenue remained fairly consistent compared to the prior year, as a 9% increase in average revenue per customer was offset by a 9% decrease in customer count.

Cost of Revenue

(Dollars in thousands)	Three Months Ended June 30,		Change	
	2023	2022	\$	%
Cost of Revenue	\$ 5,029	\$ 4,791	\$ 238	5%

Cost of revenue for the three months ended June 30, 2023 and 2022 was \$5.0 million and \$4.8 million, respectively, representing an increase of \$0.2 million, or 5%. The increase in cost of revenue was primarily due to an 8% combined increase in costs of materials, labor and shipping, partially offset by a 3% decrease in overhead expenses.

(Dollars in thousands)	Three Months Ended June 30,		Change	
	2023	2022	\$	%
Gross Profit	3,411	3,642	\$ (231)	(6)%

Gross profit for the three months ended June 30, 2023 and 2022 was \$3.4 million and \$3.6 million, respectively, representing a decrease of \$0.2 million, or 6%.

	Three Months Ended June 30,		Change	
	2023	2022	Points	%
Gross Margin	40%	43%	(3)	(7)%

Selling, General and Administrative

SG&A expenses for the three months ended June 30, 2023 and 2022 were \$8.1 million and \$6.8 million, respectively, representing an increase of \$1.3 million, or 19%. The increase in SG&A expenses primarily resulted from increases to personnel cost, amortization expense related to the intangibles acquired as part of the acquisitions of Linear AMS, MFG and MakerOS (the "2022 acquisitions"), audit and restructuring costs related to our move out of the Long Island City facility and consolidation of our U.S. manufacturing capabilities in Livonia, Michigan.

Research and Development

Research and development expenses for the three months ended June 30, 2023 and 2022 were \$2.5 million and \$2.4 million, respectively, representing an increase of \$0.1 million, or 4%. The increase in research and development expenses was primarily due to an increase in personnel cost.

Change in Fair Value of Warrant Liabilities

There was no change in fair value of the warrant liabilities for the three months ended June 30, 2023 and a gain of \$0.8 million for the three months ended June 30, 2022. The gain related to the decrease in fair value of the Private Warrants and Sponsor Warrants assumed pursuant to the Merger.

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Interest Expense

We recorded an insignificant amount of interest expense for the three months ended June 30, 2023. There was no interest expense recorded for the three months ended June 30, 2022.

Interest Income

Interest income for the three months ended June 30, 2023 was \$0.3 million which related to interest earned on our investments in short-term marketable securities. Interest income for the three months ended June 30, 2022 was insignificant.

Other Income

Other income for the three months ended June 30, 2023 was \$0.1 million which primarily related to rental income associated with our sublease of our facility in Michigan. Other income for the three months ended June 30, 2022 was insignificant.

Loss on Disposal of Assets

We recorded an insignificant loss on disposal of assets for the three months ended June 30, 2023. There was no loss on disposal of assets recorded for the three months ended June 30, 2022.

Income Taxes

We recorded an insignificant amount of income tax expense for the three months ended June 30, 2023 and 2022.

Comparison of the Six Months Ended June 30, 2023 and 2022

Revenue

(Dollars in thousands)	Six Months Ended June 30,		Change	
	2023	2022	\$	%
Revenue	\$ 16,639	\$ 16,003	\$ 636	4 %

Revenue for the six months ended June 30, 2023 and 2022 was \$16.6 million and \$16.0 million, respectively, representing an increase of \$0.6 million, or 4%. Excluding the revenue from our acquisitions of Linear and MFG for both periods presented, revenue decreased 14%. The decrease was primarily due to a 14% decrease in customer count while average revenue per customer remained consistent.

Cost of Revenue

(Dollars in thousands)	Six Months Ended June 30,		Change	
	2023	2022	\$	%
Cost of Revenue	\$ 9,946	\$ 8,952	\$ 994	11 %

Cost of revenue for the six months ended June 30, 2023 and 2022 was \$9.9 million and \$9.0 million, respectively, representing an increase of \$1.0 million, or 11%. The increase in cost of revenue was primarily due to a 12% combined increase in costs of materials, outsourced vendors, labor, shipping and machine costs, partially offset by a 1% decrease in overhead costs.

Gross Profit and Gross Margin

(Dollars in thousands)	Six Months Ended June 30,		Change	
	2023	2022	\$	%
Gross Profit	\$ 6,693	\$ 7,051	\$ (358)	(5)%

Gross profit for the six months ended June 30, 2023 and 2022 was \$6.7 million and \$7.1 million, respectively, representing a decrease of \$0.4 million or 5%.

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	Six Months Ended June 30,		Change	
	2023	2022	Points	%
Gross Margin	40 %	44 %	(4)	(9)%

Selling, General and Administrative

SG&A expenses for the six months ended June 30, 2023 and 2022 were \$16.6 million and \$12.9 million, respectively, representing an increase of \$3.7 million, or 29%. The increase in SG&A expenses primarily resulted from an increase in personnel cost due to an increase in the number of employees, expenses related to the 2022 acquisitions, amortization related to the intangibles acquired as part of the 2022 acquisitions, audit and other spending related to being a public company and restructuring costs related to our transition to our Michigan manufacturing facility.

Research and Development

Research and development expenses for the six months ended June 30, 2023 and 2022 were \$5.0 million and \$4.4 million, respectively, representing an increase of \$0.6 million, or 14%. The increase in research and development expenses was primarily due to an increase in personnel cost during the six months ended June 30, 2023.

Change in Fair Value of Warrant Liabilities

There was no change in fair value of warrant liabilities for the six months ended June 30, 2023 and a gain of \$1.5 million for the six months ended June 30, 2022. The gain related to the decrease in fair value of the Private Warrants and Sponsor Warrants assumed pursuant to the Merger.

Interest Expense

Interest expense for the six months ended June 30, 2023 was \$0.1 million which was primarily related to interest expense associated with our finance lease liability and other financing obligations. There was no interest expense for the six months ended June 30, 2022.

Other Income

Other income for the six months ended June 30, 2023 was \$0.2 million. Other income for the six months ended June 30, 2022 was insignificant.

Loss on Disposal of Assets

Loss on disposal of assets for the six months ended June 30, 2023 was \$0.1 million which was primarily related to disposal of assets in connection with our move from our previously leased facility in Long Island City, New York. There was no loss on disposal of assets recorded for the six months ended June 30, 2022.

Income Taxes

Income tax benefit was insignificant for the six months ended June 30, 2023 and 2022.

Non-GAAP Financial Information

In addition to our results determined in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP"), we believe that Adjusted EBITDA, a non-GAAP financial measure, is useful in evaluating our operational performance. We use this non-GAAP financial information to evaluate our ongoing operations and for internal planning and forecasting purposes. We believe that this non-GAAP financial information, when reviewed collectively with our U.S. GAAP results, may be helpful to investors in assessing our operating performance.

We define Adjusted EBITDA as net loss excluding interest expense, net of interest income, income tax expense (benefit), depreciation and amortization, stock-based compensation, change in fair value of warrant liabilities, acquisition costs, restructuring costs and other (which includes other income and non-operating gains and losses).

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We believe that the use of Adjusted EBITDA provides an additional tool for investors to use in evaluating ongoing operating results and trends because it eliminates the effect of financing and capital expenditures and provides investors with a means to compare our financial measures with those of comparable companies, which may present similar non-GAAP financial measures to investors. However, you should be aware that when evaluating Adjusted EBITDA we may incur future expenses similar to those excluded when calculating this measure. In addition, our presentation of Adjusted EBITDA should not be construed as an inference that our future results will be unaffected by unusual or non-recurring items.

Because of these limitations, Adjusted EBITDA should not be considered in isolation or as a substitute for performance measures calculated in accordance with U.S. GAAP. We compensate for these limitations by relying primarily on our U.S. GAAP results and using Adjusted EBITDA on a supplemental basis. You should review the reconciliation of net loss to Adjusted EBITDA below and not rely on any single financial measure to evaluate our business.

The following table reconciles net loss to Adjusted EBITDA for the three and six months ended June 30, 2023 and 2022:

(Dollars in thousands)	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Net loss	\$ (6,781)	\$ (4,674)	\$ (14,184)	\$ (8,711)
Interest expense, net	(316)	(1)	(614)	(2)
Depreciation and amortization	530	376	972	559
Stock-based compensation expense	476	457	1,281	769
Change in fair value of warrant liabilities	—	(765)	—	(1,527)
Income tax expense (benefit)	20	(1)	38	(1)
Acquisition costs	—	373	—	373
Restructuring costs	75	—	287	—
Other	(48)	(36)	(160)	(37)
Adjusted EBITDA	\$ (6,044)	\$ (4,271)	\$ (12,380)	\$ (8,577)

Liquidity and Capital Resources

We have incurred losses from operations in each of our annual reporting periods since our inception and as of June 30, 2023, we had an accumulated deficit of \$147.2 million. We had net losses of \$14.2 million and \$8.7 million for the six months ended June 30, 2023 and 2022, respectively. We believe we may continue to incur operating losses and negative cash flow in the near-term as we continue to invest significantly in our business, in particular in new printing hardware and materials, sales and marketing programs and software services. These investments may not result in increased revenue or growth in our business.

In accordance with Accounting Standards Update 2014-15 ("ASC Topic 205-40"), Presentation of Financial Statements - Going Concern: Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern, we are required to evaluate whether there is substantial doubt about our ability to continue as a going concern each reporting period, including interim periods. Management considered the Company's current projections of future cash flows, current financial condition, sources of liquidity for at least one year from the issuance date of the unaudited condensed consolidated financial statements included within this Report in considering whether the Company has the ability to meet its obligations. As of June 30, 2023, we had \$14.7 million in cash and cash equivalents, \$0.1 million in restricted cash and \$9.9 million in marketable securities. Our primary use of cash is to fund our operations. Cash used to fund operating expenses is affected by the timing of when we pay expenses, as reflected in the change in our working capital items. We believe that our current cash and cash equivalents and marketable securities as of June 30, 2023 will be sufficient to meet our working capital needs for the twelve months following the issuance date of our unaudited condensed consolidated financial statements included within this Report, however there can be no assurance of this.

On October 6, 2022, we filed a universal shelf registration statement which permits us to offer up to \$50 million in the aggregate of certain securities, in one or more offerings and in any combination. As part of the shelf registration statement, we filed a prospectus supplement registering for sale from time to time up to \$13.25 million in the aggregate of

shares of common stock pursuant to an at-the-market facility (the "ATM Facility"), subject to certain limitations. To date, we have not conducted any sales under the ATM Facility.

Our growth strategy includes exploring strategic partnerships. On March 26, 2021, we entered into a non-binding Memorandum of Understanding ("MOU") with Desktop Metal, pursuant to which Desktop Metal agreed to invest \$20.0 million in the PIPE Investment. Upon consummation of this investment, we became obligated to purchase \$20.0 million of equipment, materials and services from Desktop Metal. In conjunction with these obligations, we and Desktop Metal agreed to develop a strategic partnership. As of June 30, 2023, we paid \$16.4 million to Desktop Metal for equipment, materials and services received and placed purchase orders for another \$3.6 million of equipment, materials and services to be purchased under the MOU. The timing of payments for these purchase orders may depend on a number of factors, including Desktop Metal's inventory management and logistics systems, and our ability to take delivery of any such equipment, materials and services. We have no further obligations under the MOU.

Our ability to transition to more profitable operations is dependent upon achieving a level of revenue adequate to support our evolving cost structure. We expect to continue to incur net losses in connection with our ongoing activities, particularly as we invest in hiring, growth-related operating expenditures, and capital expenditures in respect of new digital manufacturing technologies. Additionally, we may engage in future acquisitions.

We believe that we have the ability to enact cost savings measures to preserve capital, if necessary. However, to maintain an adequate amount of available liquidity and execute our current operating plan, we will need to raise additional funds from external sources. We have not secured such funding at the time of this filing. We regularly consider fundraising opportunities and expect to determine the timing, nature and size of future financings based upon various factors, including market conditions, and our operating plans. If we raise funds through future issuances of equity or convertible debt securities, including through our ATM Facility, our existing stockholders could suffer significant dilution, and any new equity securities or debt securities we issue could have rights, preferences and privileges superior to those of holders of our common stock. Any debt financing that we may secure in the future could involve restrictive covenants relating to our capital raising activities and other financial and operational matters, which may make it more difficult for us to obtain additional capital and to pursue business opportunities, including potential acquisitions. If additional funding is required, there can be no assurance that additional funds will be available to us on acceptable terms on a timely basis, if at all. If we are unable to obtain additional funding when needed, we may need to curtail planned activities to reduce costs, which could include a reduction in workforce, portfolio optimization, and further reductions in other operating expenses. Doing so will likely have an unfavorable effect on our ability to execute on our business plan and have an adverse effect on our business, results of operations and future prospects.

Cash Flow Summary for the six months ended June 30, 2023 and 2022

The following table sets forth a summary of cash flows for the periods presented:

(Dollars in thousands)	Six Months Ended June 30,	
	2023	2022
Net cash used in operating activities	\$ (14,866)	\$ (12,166)
Net cash used in investing activities	(1,455)	(17,315)
Net cash provided by financing activities	342	288
Net change in cash and cash equivalents and restricted cash	\$ (15,979)	\$ (29,193)

Operating Activities

Net cash used in operating activities was \$14.9 million for the six months ended June 30, 2023, primarily consisting of net loss of \$14.2 million, net cash outflow from working capital of \$3.0 million and interest receivable on short-term investments of \$0.5 million, partially offset by stock-based compensation expense of \$1.3 million, depreciation and amortization expense of \$1.0 million, lease expense of \$0.5 million, and loss on disposal of assets of \$0.1 million.

Net cash used in operating activities was \$12.2 million for the six months ended June 30, 2022, primarily consisting of net loss of \$8.7 million, net cash outflow from working capital of \$3.6 million and gain on change in fair value of warrant liability of \$1.5 million, partially offset by depreciation and amortization expense of \$0.6 million, stock-based compensation expense of \$0.8 million and lease expense of \$0.4 million.

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Investing Activities

During the six months ended June 30, 2023, net cash used in investing activities was \$1.5 million, which consisted of purchases of marketable securities of \$9.8 million and purchases of property and equipment of \$1.7 million, partially offset by proceeds from settlement of short-term investments of \$10.0 million.

During the six months ended June 30, 2022 net cash used in investing activities was \$17.3 million, which consisted of \$8.9 million related to the net cash paid for the 2022 acquisitions and \$8.5 million for purchases of property and equipment.

Financing Activities

During the six months ended June 30, 2023, net cash provided by financing activities was \$0.3 million resulting primarily from proceeds from other financing obligations, partially offset by \$0.1 million from restricted stock units withheld to pay employee taxes.

During the six months ended June 30, 2022, net cash provided by financing activities was \$0.3 million resulting primarily from proceeds from the exercises of employee stock options.

Contractual Obligations and Commitments

See Note 11, Commitments and Contingencies, of the notes to the unaudited condensed consolidated financial statements for the six months ended June 30, 2023 and 2022 included elsewhere in this Report for further discussion of our commitments and contingencies.

Off-Balance Sheet Arrangements

We have no off-balance sheet arrangements and do not utilize any “structured debt,” “special purpose” or similar unconsolidated entities for liquidity or financing purposes.

Critical Accounting Estimates

Our discussion and analysis of financial condition and results of operations are based upon our unaudited condensed consolidated financial statements, which have been prepared in accordance with U.S. GAAP. Certain of our accounting policies require the application of judgment in selecting the appropriate assumptions for calculating financial estimates. By their nature, these judgments are subject to an inherent degree of uncertainty. We periodically evaluate the judgments and estimates used for our critical accounting policies to ensure that such judgments and estimates are reasonable for our interim and year-end reporting requirements. These judgments and estimates are based on our historical experience (where available), current trends and information available from other sources, as appropriate. If different conditions result from those assumptions used in its judgments, the results could be materially different from our estimates. To the extent that there are material differences between these estimates and actual results, our unaudited condensed consolidated financial statements will be affected.

For a discussion of our critical accounting estimates, please refer to ITEM 7 under Part II, “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in our 2022 Annual Report on Form 10-K/A for the year ended December 31, 2022. Since December 31, 2022, there have been no material changes to our critical accounting estimates.

Recent Accounting Pronouncements

Refer to Note 2 of our unaudited condensed consolidated financial statements found elsewhere in this Report.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

Not applicable.

Item 4. Controls and Procedures

(a) 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 reports filed under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer or persons performing similar functions, to allow for timely decisions regarding required disclosure. In accordance with Rules 13a-15(b) under the Exchange Act, we carried out an evaluation, under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of our disclosure controls and procedures as of June 30, 2023, which is the end of the three-month period covered by this Quarterly Report on Form 10-Q.

Based on this evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that during the period covered by this Report, our disclosure controls and procedures were effective at a reasonable assurance level and, accordingly, provided reasonable assurance that the information required to be disclosed by us in reports filed under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms.

(b) Changes in Internal Control Over Financial Reporting

There has been no change in our internal control over financial reporting during the fiscal quarter ended June 30, 2023, that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Part II - Other Information

Item 1. Legal Proceedings

We are involved in various legal proceedings which arise from time to time in the normal course of business. While the results of such matters generally cannot be predicted with certainty, management does not expect any such matters to have a material adverse effect on our consolidated financial position or results of operations as of the date of this Report.

Item 1A. Risk Factors

An investment in our securities involves a high degree of risk. You should consider carefully all of the risks described below, together with the other information contained in this Report, including our financial statements and related notes, before making a decision to invest in our securities. If any of the following events occur, our business, financial condition and operating results may be materially adversely affected. In that event, the trading price of our securities could decline, and you could lose all or part of your investment.

Risk Factor Summary

- We have a history of losses and may not achieve or maintain profitability in the future.
- We will require additional capital to support business growth, and this capital might not be available on acceptable terms, if at all.
- We face significant competition and expect to face increasing competition in many aspects of our business, which could cause our operating results to suffer.
- The digital manufacturing industry is a relatively new and emerging market and it is uncertain whether it will gain widespread acceptance.
- If we fail to grow our business as anticipated, our revenues, gross margin, and operating margin will be adversely affected.
- If our new and existing solutions and software do not achieve sufficient market acceptance, our financial results and competitive position will decline.
- Our attempts to continue to expand our business into existing and new markets and geographies may not be successful.
- We derive a significant portion of our revenue from business conducted outside the United States, and are subject to the risks of doing business outside the United States.
- An active, liquid trading market for our common stock may not be sustained, which may limit your ability to sell your shares.
- Our issuance of additional shares of common stock or convertible securities may dilute your ownership of us and could adversely affect our stock price.
- Future sales, or the perception of future sales, of our common stock by us or our existing stockholders in the public market could cause the market price for our common stock to decline.
- Our operating results and financial condition may fluctuate on a quarterly and annual basis.
- Our stock price may be volatile or may decline regardless of our operating performance. You may lose some or all of your investment.
- If securities or industry analysts publish inaccurate or unfavorable research or reports about our business, our stock price and trading volume could decline.
- Failure to attract, integrate and retain additional personnel in the future, could harm our business and negatively affect our ability to successfully grow our business.
- Interruptions to or other problems with our website user interface, information technology systems, manufacturing processes, or other operations could damage our reputation and brand and substantially harm our business and results of operations.
- As part of our growth strategy, we may continue to acquire or make investments in other businesses, patents, technologies, products, or services. We may not realize the anticipated benefits of such investments and integration of these investments may disrupt our business and divert management attention.

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- The loss of one or more key members of our management team or personnel could harm our business.
- We may not timely and effectively scale and adapt our platform, processes, and infrastructure across materials, technologies, markets and software to expand our business.
- Our actual results may be significantly different from our projections, estimates, targets or forecasts.

Risks Related to Our Business

We have a history of losses and may not achieve or maintain profitability in the future.

We experienced net losses of \$6.8 million and \$4.7 million for the three months ended June 30, 2023 and 2022, respectively and net loss of \$14.2 million and net income of \$8.7 million for the six months ended June 30, 2023 and 2022, respectively. As of June 30, 2023, we had an accumulated deficit of \$147.2 million. We believe we may continue to incur operating losses and negative cash flow in the near-term as we continue to invest significantly in our business, in particular in new printing hardware and materials, sales and marketing programs and software services. These investments may not result in increased revenue or growth in our business.

We may incur significant losses in the future for a number of reasons, including due to the other risks described in this Part II, Item 1A: "Risk Factors," and we may encounter unforeseen expenses, difficulties, complications and delays and other unknown events. As a result, our losses may be larger than anticipated, we may incur significant losses for the foreseeable future, and we may not achieve or maintain profitability when expected, or at all. Revenue growth and growth in our customer base may not be sustainable, and we may not achieve sufficient revenue to achieve or maintain profitability. If our future growth and operating performance fail to meet investor or analyst expectations, or if we have future negative cash flow or losses resulting from our investment in acquiring customers or expanding our operations, this could have a material adverse effect on our business, financial condition and results of operations.

We will require additional capital to support business growth, and this capital might not be available on acceptable terms, if at all. If we are unable to raise additional capital, our financial condition could be adversely affected and we may not be able to execute our growth strategy.

Our primary use of cash is to fund our operations. As of June 30, 2023, we had \$14.7 million in cash and cash equivalents, \$0.1 million in restricted cash and \$9.9 million in marketable securities. While we believe that our current cash and cash equivalents and marketable securities as of June 30, 2023 will be sufficient to meet our working capital needs for the twelve months following the issuance date of our unaudited condensed consolidated financial statements included within this Form 10-Q, there can be no assurance of this. We believe that we have the ability to enact cost savings measures to preserve capital, if necessary. However, to maintain an adequate amount of available liquidity and execute our current operating plan, we will need to raise additional funds from external sources. We have not secured such funding at the time of this filing.

We regularly consider fundraising opportunities and expect to determine the timing, nature and size of future financings based upon various factors, including market conditions, and our operating plans. We may in the future elect to finance operations by selling equity or debt securities or borrowing money. If we raise funds through future issuances of equity or convertible debt securities, including through our existing at-the-market facility (the "ATM Facility"), our existing stockholders could suffer significant dilution, and any new equity securities or debt securities we issue could have rights, preferences and privileges superior to those of holders of our common stock. Any debt financing that we may secure in the future could involve restrictive covenants relating to our capital raising activities and other financial and operational matters, which may make it more difficult for us to obtain additional capital and to pursue business opportunities, including potential acquisitions. If additional funding is required, there can be no assurance that additional funds will be available to us on acceptable terms on a timely basis, if at all. If we are unable to obtain additional funding when needed, we may need to curtail planned activities to reduce costs, which could include a reduction in workforce, portfolio optimization, and further reductions in other operating expenses. Doing so will likely have an unfavorable effect on our ability to execute on our business plan and have an adverse effect on our business, results of operations and future prospects.

Our ability to access any existing or future capital is also dependent on the condition of the banking system and financial markets. For example, in March 2023, the Federal Deposit Insurance Corporation (“FDIC”) took control and was appointed receiver of Silicon Valley Bank (“SVB”) and Signature Bank (“Signature”), and in May 2023 JP Morgan acquired First Republic Bank (“FRB”) as part of a controlled FDIC takeover. As of the date of this report, we do not have direct exposure to SVB, Signature or FRB, but we cannot predict the broader impact or follow-on effects of these insolvencies and takeovers. If other banks and financial institutions enter receivership or become insolvent in the future in response to financial conditions affecting the banking system and financial markets, our ability to access our existing cash, cash equivalents and investments may be threatened and could have a material adverse effect on our business and financial condition.

We face significant competition and expect to face increasing competition in many aspects of our business, which could cause our operating results to suffer.

The digital manufacturing industry in which we operate is fragmented and competitive. We compete for customers with a wide variety of manufacturers, including those that use digital manufacturing and/or 3D printing equipment. Exclusivity arrangements in the digital manufacturing industry are uncommon; we have few exclusivity arrangements with our customers. Some of our existing and potential competitors are researching, designing, developing, and marketing other types of offerings that may render our existing or future services obsolete, uneconomical or less competitive. Existing and potential competitors may also have substantially greater financial, technical, marketing and sales, manufacturing, distribution, and other resources than we do, including name recognition, as well as experience and expertise in intellectual property rights and operating within certain international markets, any of which may enable them to compete effectively against us. For example, a number of companies that have substantial resources have announced that they are beginning digital manufacturing initiatives, which will further enhance the competition we face.

We cannot assure you that we will be able to maintain our current position or continue to compete successfully against current and future sources of competition. If we do not keep pace with technological change, demand for our offerings may decline, and our operating results may suffer.

The digital manufacturing industry is a relatively new and emerging market and it is uncertain whether it will gain widespread acceptance.

The emergence of the digital manufacturing industry is a relatively recent development, and the industry is characterized by rapid technological change. We have encountered and will continue to encounter challenges experienced by growing companies in a market subject to rapid innovation and technological change. While we intend to invest substantial resources to remain on the forefront of technological development, continuing advances in digital manufacturing technology, changes in customer requirements and preferences, and the emergence of new standards, regulations, and certifications could adversely affect adoption of our products either generally or for particular applications. If the digital manufacturing industry does not gain widespread acceptance, our business will be adversely affected.

If we fail to grow our business as anticipated, our revenues, gross margin, and operating margin will be adversely affected.

Over the next several years we will attempt to grow our business substantially. To this end, we have made, and expect to continue to make, significant investments in our business, including investments in our infrastructure, technology, marketing, and sales efforts. This may include additional investments beyond our acquisitions of Linear Mold & Engineering, LLC, also referred to as Linear AMS (“Linear”), MFG and MakerOS in the second quarter of 2022, as well as dedicated facilities expansion and increased staffing, both domestic and international. If our business does not generate the level of revenue required to support our investments, our revenues and profitability will be adversely affected.

Our ability to effectively manage our growth will also require us to enhance our operational, financial, and management controls and infrastructure, human resources policies, and reporting systems. These will require significant investments in additional headcount and other operating expenditures and allocation of valuable management and employee resources. Our future financial performance and our ability to execute on our business plan will depend, in part, on our ability to effectively manage any future growth and expansion. There are no guarantees we will be able to do so in an efficient or timely manner, or at all.

If our new and existing solutions and software do not achieve sufficient market acceptance, our financial results and competitive position will decline.

We launched the first phase of our software offering under the brand "OTTO" in the fourth quarter of 2021. We expanded our software offering's customer base and feature set with the acquisitions of MFG and MakerOS in the second quarter of 2022 and plan to roll out further phases of our software offering in the next several years. We have seen an increase in revenues from sales of our software to date, however, it may never scale to our expectations. If our software offerings do not achieve widespread acceptance, if our rollouts experience significant delays, or if there is lower than anticipated demand for our software caused by a lack of customer acceptance, technological challenges, weakening economic conditions, security or privacy concerns, competing technologies and products, decreases in corporate spending, or otherwise, our business could be adversely affected.

Our attempts to continue to expand our business into existing and new markets and geographies may not be successful.

We seek to grow our business through, among other things, expanding our digital manufacturing capabilities into existing and new markets and expanding our offerings into new geographies, including through acquisitions. Our efforts to expand our offerings into existing and new markets, including industrial, medical, automotive, and aerospace markets, and new geographies may not succeed. These attempts to expand our business increase the complexity of our business, require significant levels of investment, and can strain our management, personnel, operations, and systems. There can be no assurance that these business expansion efforts will develop as anticipated or that we will succeed, and if we do not, we may be unable to recover our investment, which could adversely impact our business, financial condition, and results of operations.

We may be unable to consistently manufacture our customers' designs to the necessary specifications or in quantities necessary to meet demand at an acceptable cost or at an acceptable performance level and this could adversely affect our service availability, delivery, reliability, and cost.

As we continue to grow and introduce new materials and as our customers' designs become increasingly sophisticated, it will become more difficult to provide products in the necessary quantities to meet customer expectations. We cannot assure you that we or our third-party manufacturers will be able to continue to consistently achieve the product specifications and quality that our customers expect. Any future unforeseen manufacturing problems, such as equipment malfunctions, aging components, component obsolescence, business continuity issues, quality issues with components and materials sourced from third party suppliers, or failures to strictly follow procedures or meet specifications, may have a material adverse effect on our brand, business, financial condition, and operating results. Furthermore, we or our third-party manufacturers may not be able to increase manufacturing to meet anticipated demand or may experience downtime or fail to timely deliver manufactured products to customers. If we fail to meet contractual terms with our customers, including terms related to time of delivery and performance specifications, we may be required to replace defective products and may become liable for damages, even if manufacturing or delivery was outsourced.

Our commercial contracts generally contain product warranties and limitations on liability and we carry liability insurance. However, commercial terms and our insurance coverage may not be adequate or available to protect our company in all circumstances, and we might not be able to maintain adequate insurance coverage for our business in the future at an acceptable cost. Any liability claim against us that is not covered by adequate insurance could adversely affect our consolidated results of operations and financial condition.

Our success depends on our ability to deliver services that meet the needs of customers and to effectively respond to changes in our industry.

Our business may be affected by rapid technological change, changes in user and customer requirements and preferences, frequent new product and service introductions by our competitors, and the emergence of new technologies, any of which could render our existing and proposed offerings and proprietary technology obsolete. Accordingly, our ongoing research and development programs are intended to enable us to maintain technological leadership. Furthermore, in order to enable continuous deep integrations with our customers, we must continually update our platform so that it can interoperate with other software and systems used by our customers. We believe that to remain competitive we must continually enhance and improve the functionality and features of our services and technologies. However, there is a risk that we may not be able to:

- Develop or obtain leading technologies useful in our business;

- Enhance our existing software offerings;
- Develop new services and technologies that address the increasingly sophisticated and varied needs of prospective customers, particularly in the area of materials diversity;
- Respond to technological advances and emerging industry standards and practices on a cost-effective and timely basis;
- Successfully manage frequent introductions and transitions of technology and software; or
- Recruit or retain key technology employees.

If we are unable to meet changing technology and customer needs, or if we fail to successfully integrate new and upgraded software, our competitive position, revenue, results of operations, and financial condition could be adversely affected.

Failure to attract, integrate and retain additional personnel in the future could harm our business and negatively affect our ability to successfully grow our business.

To support the continued growth of our business, we must effectively recruit, hire, integrate, develop, motivate, and retain additional new employees. High demand exists for senior management and other key personnel (including technical, engineering, product, finance, and sales personnel) in the digital manufacturing industry, and there can be no assurance that we will be able to retain our current key personnel. We experience intense competition for qualified personnel and some of our competitors for these employees have greater resources and more experience, making it difficult for us to compete successfully for key personnel. Moreover, new employees may not become as productive as we expect since we may face challenges in adequately integrating them into our workforce and culture. If we cannot attract and retain sufficiently qualified technical employees for our research and development activities, as well as experienced sales and marketing personnel, we may be unable to develop and commercialize new offerings or new applications for existing offerings. Furthermore, possible shortages of key personnel, including engineers, in the regions surrounding our facilities could require us to pay more to hire and retain key personnel, thereby increasing our costs.

All of our U.S. employees are at-will employees, meaning that they may terminate their employment relationship with us at any time, and their knowledge of our business and industry would be extremely difficult to replace. Where permissible by law, we generally enter into non-competition agreements with our employees. These agreements prohibit our employees from competing directly with us or working for our competitors or clients while they work for us, and in some cases, for a limited period after they cease working for us. We may be unable to enforce these agreements under the laws of the jurisdictions in which our employees work, in certain circumstances we may choose not to enforce these agreements and it may be difficult for us to restrict our competitors from benefiting from the expertise that our former employees or consultants developed while working for us. In addition, the Federal Trade Commission (the "FTC") recently proposed a rule that would prevent employers from entering into non-competition agreements with employees and require employers to rescind existing non-competition agreements. If we cannot demonstrate that our legally protectable interests will be harmed, or if the FTC rule goes into effect, we may be unable to prevent our competitors from benefiting from the expertise of our former employees or consultants and our ability to remain competitive may be diminished.

Changes in the mix of the offerings we provide may impact our gross margins and financial performance.

Our financial performance has been and may continue to be affected by the mix of offerings we sell during a given period, and we may experience significant quarterly fluctuations in revenues, gross margins, or operating income or loss due to the impact of the mix of offerings, channels, or geographic areas in which we sell our offerings. Our offerings are sold, and will continue to be sold, at different price points. Sales of certain of our offerings have, or are expected to have, higher gross margins than others. If our offerings mix shifts into lower gross margin offerings, and we are not able to sufficiently reduce the engineering, production, and other costs associated with those offerings or substantially increase the sales of our higher gross margin offerings, our profitability could be reduced. In addition, the introduction of new products or services, including as a result of acquisitions, has and may continue to heighten quarterly fluctuations in gross profit and gross margins due to manufacturing ramp-up and start-up costs.

We may experience significant delays in the roll out of our digital manufacturing solutions, and we may be unable to successfully commercialize manufacturing solutions on our planned timelines.

Some of our digital manufacturing solutions have not been widely released, including our software platform offering. There are often delays in the testing, manufacture, and commercial release of new solutions, and any delay in the

process could materially damage our brand, business, growth prospects, financial condition, and operating results. Even if we successfully complete the testing of new solutions, they may not achieve widespread commercial success for a number of reasons, including:

- misalignment between the solutions and customer needs;
- lack of innovation of the solutions;
- failure of the solutions to perform in accordance with the customer's industry standards;
- ineffective distribution and marketing;
- delay in obtaining any required regulatory approvals;
- unexpected production costs; or
- release of competitive products.

We may not timely and effectively scale and adapt our platform, processes, and infrastructure across materials, technologies, markets, and software, to expand our business.

A key element to our growth strategy is the ability to scale our existing platform quickly and efficiently across different materials, technologies, and other applications. This will require us to timely and effectively scale and adapt our existing platform, technology, processes, and infrastructure to expand our business. We began offering software as a service ("SaaS") under the brand "OTTO" in the fourth quarter of 2021, and plan to roll out further phases of this software over the next several years, but may not succeed in doing so. Similarly, our manufacturing technology may not enable us to process the large numbers of unique designs and efficiently manufacture the related parts in a timely fashion to meet the needs of customers as our business continues to grow. We may not succeed in scaling our business, and any failure in our ability to timely and effectively scale our platform, technology, processes, and infrastructure could damage our reputation and brand, result in lost revenue, and otherwise substantially harm our business and results of operations.

We rely on our collaborations and commercial agreements with third-party additive manufacturing hardware and material providers for many of our manufacturing solutions.

Our ability to deliver manufacturing solutions to our customers and expand our manufacturing capabilities that include new hardware technologies and materials such as industrial metals, is dependent on obtaining digital manufacturing hardware and materials from third-party manufacturers. Delays in readiness, capabilities and availability of technologies, hardware and materials may limit our ability to provide manufacturing capabilities to our customers according to our plan. We have historically focused on manufacturing for customers needing products based in polymers, launching new technologies and materials will require new skills, time, and inherent risks. The success of our business may also depend, in part, on the performance and operations of third-party digital manufacturing hardware and material providers and their suppliers, over which we do not have control. We cannot assure you that our efforts in securing collaboration and commercial relationships will be successful or that we will achieve the anticipated benefits of our collaboration.

Our failure to meet our customers' speed and quality expectations would adversely affect our business and results of operations.

We believe many of our customers are facing increased pressure from global competitors to be first to market with their finished products, often resulting in a need for quick turnaround of custom parts. We believe our ability to quickly quote, manufacture, and ship high-quality custom parts has been an important factor in our results to date. There are no guarantees we will be able to meet customers' increasing expectations regarding quick turnaround time and quality, especially as we increase the scope of our operations. If we fail to meet our customers' expectations in any given period, our business and results of operations will likely be adversely affected.

Our customers are often price sensitive and if our pricing algorithm produces pricing that fails to meet our customers' price expectations or insufficiently accounts for our costs to deliver our offerings, our business and results of operations may be adversely affected.

Demand for our services is sensitive to price. We believe our competitive pricing has been an important factor in our results to date. Therefore, changes in our pricing strategies can have a significant impact on our business and ability to generate revenue. Many factors, including our production and personnel costs and our competitors' pricing and marketing strategies, can significantly impact our pricing strategies. We use algorithms to determine how to price customer orders.

We may encounter technical obstacles and it is possible that we may discover additional problems that prevent our proprietary algorithms from operating properly.

If we fail to meet our customers' price expectations in any given period, demand for our offerings could decline. If our pricing algorithms do not function reliably, we may incorrectly price offerings for our customers, which could result in loss and cancellation of orders and customer dissatisfaction or cause projects to lose money.

Any of these events could result in a material and adverse effect on our business, results of operations, and financial condition.

Sales efforts to large customers involve risks that may not be present or that are present to a lesser extent with respect to sales to smaller organizations.

We have invested, and plan to continue to invest, in increasing our customer focus towards middle market and enterprise opportunities. Sales to large customers involve risks that may not be present or that are present to a lesser extent with sales to smaller organizations, such as longer sales cycles, more complex customer requirements, substantial upfront sales costs, less predictability in completing some of our sales, and extended payment terms. A number of factors influence the length and variability of our sales cycle, including the need to educate potential customers about the uses and benefits of our platform, the lengthier amount of time for large customers to evaluate and test our platform prior to making a purchase decision and placing an order, the discretionary nature of purchasing and budget cycles, and the competitive nature of evaluation and purchasing approval processes. As a result, the length of our sales cycle, from identification of the opportunity to deal closure, may vary significantly from customer to customer, with sales to large enterprises typically taking longer to complete. Moreover, larger organizations may demand more customization, which would increase our upfront investment in the sales effort with no guarantee that these customers will deploy our products widely enough across their organization to justify our substantial upfront investment. A portion of these customers may purchase our services on payment terms, requiring us to assume a credit risk for non-payment in the ordinary course of business. If we fail to effectively manage these risks associated with sales to large customers, our business, financial condition, and results of operations may be affected.

We derive a significant portion of our revenue from business conducted outside the U.S. and are subject to the risk of doing business outside the United States.

We manufacture offerings for customers in more than 180 countries around the world, and we derive a substantial percentage of our sales from these international markets. We also operate manufacturing facilities in the United States and the Netherlands, have supply chain partners that extend internationally, and deliver to customers in over 180 countries. During the six months ended June 30, 2023, we derived approximately 28% of our revenue from outside the United States. Accordingly, we face significant operational risks from doing business internationally.

Risks and uncertainties we face from our global operations include:

- difficulties in staffing and managing foreign operations;
- limited protection for the enforcement of contract and intellectual property rights in certain countries where we may sell our offerings or work with suppliers or other third parties;
- potentially longer sales and payment cycles and potentially greater difficulties in collecting accounts receivable;
- foreign currency exchange risk;
- increasing inflation and interest rates;
- costs and difficulties of customizing offerings for foreign countries;
- challenges in providing solutions across a significant distance, in different languages, and among different cultures;
- laws and business practices favoring local competition;
- being subject to a wide variety of complex foreign laws, treaties, and regulations and adjusting to any unexpected changes in such laws, treaties, and regulations;
- specific and significant regulations, including the European Union's General Data Protection Regulation, or GDPR, which imposes compliance obligations on companies who possess and use data of EU residents;
- uncertainty and resultant political, financial and market instability arising from market disruptions in the United Kingdom and Europe;

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- compliance with U.S. laws affecting activities of U.S. companies abroad, including the U.S. Foreign Corrupt Practices Act;
- tariffs, trade barriers, sanctions, and other regulatory or contractual limitations on our ability to sell or develop our offerings in certain foreign markets;
- operating in countries with a higher incidence of corruption and fraudulent business practices;
- changes in regulatory requirements, including export controls, tariffs and embargoes, other trade restrictions, competition, corporate practices, and data privacy concerns;
- supply chain disruptions, which may be exacerbated by the conflict between Russia and Ukraine and other geo-political tensions;
- potential adverse tax consequences from global operations including value added tax concerns;
- seasonal reductions in business activity in certain parts of the world, particularly during the summer months in Europe;
- rapid changes in government, economic, and political policies and conditions; and
- political or civil unrest or instability, regional or larger scale conflicts or geo-political actions, including war or other military conflicts (such as the conflict between Russia and Ukraine), terrorism or epidemics, and other similar outbreaks or events.

In addition, digital manufacturing has been identified by the U.S. government as an emerging technology and is currently being further evaluated for national security impacts. We expect additional regulatory changes to be implemented that will result in increased and/or new export controls related to digital manufacturing technologies and related materials and software. These changes, if implemented, may result in our being required to obtain additional approvals to deliver our services in the global market.

Our failure to effectively manage the risks and uncertainties associated with our global operations could limit the future growth of our business and adversely affect our business and operating results.

Our growth strategy includes exploring strategic partnerships, and we may not be able to establish or maintain such strategic partnerships on terms favorable to us or at all.

Our growth strategy includes exploring strategic partnerships in order to maximize our potential. On March 26, 2021, we entered into a non-binding Memorandum of Understanding (“MOU”) with Desktop Metal, to establish a multi-year strategic commercial partnership. Pursuant to our MOU, Desktop Metal agreed to invest \$20.0 million in the PIPE Investment (as defined in Note 1 to our unaudited condensed consolidated financial statements included elsewhere in this Report). In connection with this investment, we were obligated to purchase \$20.0 million of equipment, materials and services from Desktop Metal. As of June 30, 2023, we had paid \$16.4 million to Desktop Metal for equipment, materials and services received and placed purchase orders for another \$3.6 million of equipment, materials and services to be purchased under the MOU. The timing of payments for these purchase orders may depend on a number of factors, including Desktop Metal’s inventory management and logistics systems and our ability to take delivery of any such equipment, materials and services. While we have no further obligations under the MOU, we have entered into a strategic partnership with Desktop Metal to gain access to Desktop Metal’s additive manufacturing hardware technology, solutions and resources to accelerate our manufacturing capabilities to include an industrial metal offering. We expect this strategic partnership to benefit our customers and our business, however we cannot be certain if such strategic partnership will be commercially successful. In addition, we may decide to postpone the rollout of the equipment purchased which could result in future impairment charges that would adversely affect our financial position.

As part of our growth strategy, we may continue to acquire or make investments in other businesses, patents, technologies, products, or services. We may not realize the anticipated benefits of such investments and integration of these investments may disrupt our business and divert management attention.

Our business strategy includes growing our business through acquisitions. We may not be able to successfully identify attractive acquisition opportunities or consummate any such acquisitions if we cannot reach an agreement on commercially favorable terms, if we lack sufficient resources to finance the transaction on our own and cannot obtain financing at a reasonable cost, or if regulatory authorities prevent such transaction from being consummated. To date, we have consummated a limited number of acquisitions, and our relative lack of experience may adversely affect the success of future acquisitions. In addition, competition for acquisitions in the markets in which we operate during recent years has

increased, and may continue to increase, which may result in an increase in the costs of acquisitions or cause us to refrain from making certain acquisitions.

If we do complete future acquisitions, we cannot assure you that they will ultimately strengthen our competitive position or that they will be viewed positively by customers, financial markets, or investors. Furthermore, acquisitions could pose numerous additional risks to our operations, including:

- diversion of management's attention from their day-to-day responsibilities;
- unanticipated costs or liabilities associated with the acquisition;
- incurrence of acquisition-related costs, which would be recognized as a current period expense;
- acquisition of a significant amount of goodwill, which could result in future impairment charges that would adversely affect our financial position;
- problems integrating the purchased business, products or technologies;
- challenges in achieving strategic objectives, cost savings and other anticipated benefits;
- inability to maintain relationships with key customers, suppliers, vendors and other third parties on which the purchased business relies;
- the difficulty of incorporating acquired technology and rights into our platform and of maintaining quality and security standards consistent with our brand;
- difficulty in maintaining controls, procedures, and policies during the transition and integration;
- challenges in integrating the new workforce and the potential loss of key employees, particularly those of the acquired business; and
- use of substantial portions of our available cash or the incurrence of debt to consummate the acquisition.

If we proceed with a particular acquisition, we may have to use cash, issue new equity securities with dilutive effects on existing stockholders, incur indebtedness, assume contingent liabilities, or amortize assets or expenses in a manner that might have a material adverse effect on our financial condition and results of operations. Acquisitions require us to record certain acquisition-related costs and other items as current period expenses, which would have the effect of reducing our reported earnings in the period in which an acquisition is consummated. In addition, we could face unknown liabilities or write-offs due to our acquisitions, which could result in a significant charge to our earnings in the period in which they occur. We are also required to record goodwill or other long-lived asset impairment charges (if any) in the periods in which they occur, which could result in a significant charge to our earnings in any such period.

Achieving the expected returns and synergies from acquisitions will depend, in part, upon our ability to integrate the products and services, technology, administrative functions, and personnel of these businesses into our offering lines in an efficient and effective manner, and to retain the customers of acquired companies. We cannot assure you that we will be able to do so, that any acquired businesses will perform at the levels and on the timelines anticipated by our management, or that we will be able to obtain these synergies. In addition, acquired technologies and intellectual property may be rendered obsolete or uneconomical by our own or our competitors' technological advances. Management resources may also be diverted from operating our existing businesses to certain acquisition integration challenges. If we are unable to successfully integrate acquired businesses, our anticipated revenues and profits may be lower. Our gross margins may also be lower, or diluted, following the acquisition of companies whose gross margins are lower than those of our existing business.

Global economic conditions may harm our ability to do business, increase our costs and negatively affect our stock price.

Our performance depends on the financial health and strength of our customers, which in turn is dependent on the economic conditions of the markets in which we and our customers operate. The recent declines in the global economy, volatility in the financial services sector and credit markets, continuing geopolitical uncertainties, increasing inflation, increasing interest rates, and other macroeconomic factors all affect the spending behavior of potential customers.

We also face risks from financial difficulties or other uncertainties experienced by our suppliers, distributors, or other third parties on which we rely. If third parties are unable to supply us with required materials or otherwise assist us in operating our business, our business could be harmed.

For example, the conflict between Russia and Ukraine, the possibility of a trade war or other conflict between the United States and China, and other supply and labor disruptions may directly or indirectly impact our operations by increasing the cost of raw materials, finished products, or other materials used in our offerings and impeding our ability to sell our offerings in Europe and China. Other changes in U.S. social, political, regulatory, and economic conditions or in laws and policies governing foreign trade, manufacturing, environmental matters, development, and investment could also adversely affect our business. We could experience interruptions in production due to the processing of customs formalities or reduced customer spending in the wake of weaker economic performance. If global economic conditions remain volatile for a prolonged period, our results of operations could be adversely affected.

Errors or defects in our software or products we manufacture could cause us to incur additional costs, lose revenue and business opportunities, damage our reputation and expose us to potential liability.

Sophisticated software and complex manufactured products may contain errors, defects, or other performance problems at any point in the life of the product. If errors or defects are discovered in our current or future software or in the products we manufacture for customers, we may not be able to correct them in a timely manner, or provide an adequate response to our customers. We may therefore need to expend significant financial, technical, and management resources, or divert some of our development resources, in order to resolve or work around those defects. We may also experience an increase in our service and warranty costs. Particularly in the medical sector, errors or defects in our software or products could lead to claims by patients against us and our customers and expose us to lawsuits that may damage our and our customers' reputations. Claims may be made by individuals or by classes of users. Our product liability and related insurance policies may not apply or sufficiently cover any product liability lawsuit that arises from defective software or products. Customers such as our collaboration partners may also seek indemnification for third party claims allegedly arising from breaches of warranties under our collaboration agreements.

Errors, defects or other performance problems in our software or products we manufacture may also result in the loss of, or delay in, the market acceptance of our platform and digital manufacturing services. Such difficulties could also cause us to lose customers and, particularly in the case of our largest customers, the potentially substantial associated revenue which would have been generated by our sales to companies participating in our customer's supply chain. Technical problems, or the loss of a customer with a particularly important global reputation, could also damage our own business reputation and cause us to lose new business opportunities.

Workplace accidents or environmental damage could result in substantial remedial obligations and damage to our reputation.

Accidents or other incidents that occur at our manufacturing service centers and other facilities or involve our personnel or operations could result in claims for damages against us. In addition, in the event we are found to be financially responsible, as a result of environmental or other laws or by court order, for environmental damages alleged to have been caused by us or occurring on our premises, we could be required to pay substantial monetary damages or undertake expensive remedial obligations. The amount of any costs, including fines or damages payments that we might incur under such circumstances could substantially exceed any insurance we have to cover such losses. Any of these events, alone or in combination, could have a material adverse effect on our business, financial condition, and results of operations and could adversely affect our reputation.

We have significant customer concentration, with our largest customer accounting for a substantial portion of our revenue.

Our largest customer accounted for approximately 18% of our revenue for the six months ended June 30, 2023. Our future operating results will be affected by both the success of our largest customer and our success in diversifying our products and customer base. If demand for our largest customer's products increases, our results are favorably impacted, while if demand for their products decreases, they may reduce their purchases of, or stop purchasing, our services and our operating results would suffer. While we currently have exclusivity arrangements for a limited time period with our largest customer with respect to such customer's use of third parties for 3D printing, such exclusivity does not preclude the customer insourcing 3D printing capabilities or leveraging other technologies to manufacture their products, which may cause us to lose such customer's business. The loss of our largest customer and failure to add new customers to replace lost revenue would have a material adverse effect on our business, financial condition and results of operations. In addition, should this large customer default in their obligation to pay, our results of operations and cash flows could be adversely affected.

If our manufacturing facilities are disrupted, we may be unable to fulfill customer orders, which could have an adverse effect on our results of operations.

We have manufacturing service centers in Eindhoven, the Netherlands, Livonia, Michigan and Charlotte, Michigan. If the operations of these facilities are materially disrupted, whether by fires or other industrial accidents, extreme weather, natural disasters, labor stoppages, acts of terror, war or other military conflict (such as the conflict between Russia and Ukraine), or otherwise, we may be unable to fulfill customer orders for the period of the disruption or need to shift orders to another facility, we would not be able to recognize revenue on unfulfilled orders, we could suffer damage to our reputation, and we might need to modify our standard sales terms to secure the commitment of new customers during the period of the disruption and perhaps longer. Depending on the cause of the disruption, we could incur significant costs to remedy the disruption and resume operations. These delays could be lengthy and costly. If any of our third-party contract manufacturers', suppliers' or customers' facilities are negatively impacted by such a disaster, production, shipment of products could also be delayed. Even if we are able to respond quickly to a disruption at our or any third-party facilities, the continued effects of the disaster could create uncertainty in our business operations.

We could experience unforeseen difficulties in building and operating key portions of our manufacturing infrastructure.

We have designed and built our own manufacturing operations and other key portions of our technical infrastructure through which we manufacture products for customers, and we plan to continue to expand the size of our infrastructure through expanding our digital manufacturing facilities. The infrastructure expansion we may undertake may be complex, and unanticipated delays in the completion of these projects or availability of materials may lead to increased project costs, operational inefficiencies, or interruptions in the delivery or degradation of the quality of our products.

Our business depends in part on our ability to process a large volume of new part designs from a diverse group of customers and successfully identifying significant opportunities for our business based on those submissions.

We believe the volume of new part designs we process and the size and diversity of our customer base give us valuable insight into the needs of our prospective customers. We utilize this industry knowledge to determine where we should focus our development resources. If the number of new part designs we process or the size and diversity of our customer base decrease, our ability to successfully identify significant opportunities for our business and meet the needs of current and prospective customers could be negatively impacted. In addition, even if we do continue to process a large number of new part designs and work with a significant and diverse customer base, there are no guarantees that any industry knowledge we extract from those interactions will be successfully utilized to help us identify significant business opportunities or better understand the needs of current and prospective customers.

Interruptions, delays in service or inability to increase capacity, including internationally, at third-party data center facilities could adversely affect our business and reputation.

Our business, brand, reputation, and ability to attract and retain customers depend upon the satisfactory performance, reliability, and availability of our platform, which in turn, with respect to our SaaS offering, OTTO, depend upon the availability of the internet and our third-party service providers. To meet the growing market demands for our platform, we migrated our key applications and data to the cloud-based infrastructure services provided by Amazon Web Services ("AWS"). Consequently, our primary servers are hosted in AWS-operated data centers. While AWS plays a crucial role in our infrastructure, a portion of our servers are still located in third-party data center facilities operated by Digital Realty in the United States and EcoRacks in Eindhoven. We anticipate shutting down these remaining servers in the second half of 2023.

As we continue to validate the migration of third-party data centers to cloud-based infrastructure services, we may discover new information such as loss or corruption of data, service interruptions, increased cyber threats and activity, and unanticipated expenses, including increased costs of implementation which may affect our business. As we increase our reliance on cloud-based infrastructure services, our products and services will become increasingly reliant on continued access to, and the continued stability, reliability, and flexibility of, AWS' cloud-based infrastructure. We may in the future be unable to secure additional cloud hosting capacity on commercially reasonable terms or at all. If AWS increases its pricing terms, terminates or seeks to terminate our contractual relationship or changes or interprets their terms of service or policies in a manner that is unfavorable, we may be required to transfer to another provider and may incur significant costs and experience service interruptions.

We do not control the operation of AWS or any third-party data center hosting facilities, and they may be subject to damage or interruption from earthquakes, floods, fires, power loss, telecommunications failures, terrorist attacks, war or other military conflict, and similar events. They may also be subject to interruptions due to system failures, computer viruses, software errors, or subject to breaches of computer hardware and software security, break-ins, sabotage, intentional acts of vandalism, and similar misconduct. And while we rely on service level agreements with our hosting providers, if they do not properly maintain their infrastructure or if they incur unplanned outages, our customers may experience performance issues or unexpected interruptions and we may not meet our service level agreement terms with our customers. We have experienced, and expect that in the future we may experience interruptions, delays, and outages in service and availability from time to time due to a variety of factors, including infrastructure changes, human or software errors, website hosting disruptions, and capacity constraints. These and other similar events beyond our control could negatively affect the use, functionality, or availability of our services.

Any damage to, or failure of, our systems, or those of our third-party providers, could interrupt or hinder the use or functionality of our services. Impairment of or interruptions in our services may reduce revenue, subject us to claims and litigation, cause customers to terminate their contracts, and adversely affect our ability to attract new customers. Our business will also be harmed if customers and potential customers believe our services are unreliable.

Interruptions to or other problems with our website user interface, information technology systems, manufacturing processes, or other operations could damage our reputation and brand and substantially harm our business and results of operations.

The satisfactory performance, reliability, consistency, security, and availability of our websites and interactive user interface, information technology systems, manufacturing processes, and other operations are critical to our reputation and brand, and our ability to effectively service customers. Any interruptions or other problems that cause any of our websites, interactive user interface, or information technology systems to malfunction or be unavailable, or negatively impact our manufacturing processes or other operations, may damage our reputation and brand, result in lost revenue, cause us to incur significant costs seeking to remedy the problem, and otherwise substantially harm our business and results of operations.

A number of factors or events could cause such interruptions or problems, including among others: human and software errors, design faults, challenges associated with upgrades, changes or new facets of our business, power loss, telecommunication failures, fire, flood, extreme weather, political instability, acts of terrorism, war or other military conflict, break-ins and security breaches, contract disputes, labor strikes and other workforce related issues, capacity constraints due to an unusually large number of customers accessing our websites or ordering parts at the same time, and other similar events. In addition, due to geopolitical conflicts, there is an increased likelihood that escalation of tensions could result in cyberattacks that could either directly or indirectly impact our operations. Bad actors may also leverage artificial intelligence to launch more frequent, targeted and coordinated attacks. These risks are augmented by the fact that our customers come to us largely for our quick-turn manufacturing capabilities and that accessibility and turnaround speed are often of critical importance to these customers. We are dependent upon our facilities through which we satisfy all of our production demands and in which we house all of the computer hardware necessary to operate our websites and systems as well as managerial, customer service, sales, marketing, and other similar functions, and we have not identified alternatives to these facilities or established fully redundant systems in multiple locations. In addition, we are dependent in part on third parties for the implementation and maintenance of certain aspects of our communications and production systems, and therefore preventing, identifying, and rectifying problems with these aspects of our systems is to a large extent outside of our control.

Moreover, the business interruption insurance that we carry may not be sufficient to compensate us for the potentially significant losses, including the potential harm to the future growth of our business that may result from interruptions in our service as a result of system failures.

If we are unable to retain existing customers, sell additional services to our existing customers, or attract new customers, our revenue growth will be adversely affected.

To increase our revenue, we must retain existing customers, convince them to expand their use of our solutions across their organizations and for a variety of use cases, and expand their purchasing on terms favorable to us. We may not meet our customers' expectations. We have recently experienced a continuous decline in our customer count, and it is uncertain whether such decline is temporary. If we are not able to renew our agreements with existing customers or attract new business from existing customers on favorable terms, this could have an adverse effect on our business, revenue, gross margins, and other operating results. The rate at which our customers purchase new or enhanced solutions from us, as well as the expansion of use of our solutions across organizations, depend on a number of factors, including general economic conditions, customer specific conditions, competitive pricing, integration with existing technologies, and satisfaction and market acceptance of our platform generally. If our efforts to sell additional solutions to our customers are not successful, our business and growth prospects may suffer. Additionally, our future revenue depends in part on our ability to turn our pipeline customers into actual customers. Pipeline customers may fail to accept our offerings, choose our competitors' offerings, or otherwise not turn into customers. If we are not able to turn pipeline or other prospective customers into customers, or customers that provide significant revenues, our business and growth prospects could be adversely affected.

The loss of one or more key members of our management team or personnel could harm our business.

We believe our success has depended, and continues to depend, on the efforts and talents of our senior management and other key personnel, including, in particular, our executive officers. Our executive team is critical to the management of our business and operations, as well as to the development of our strategy. Members of our senior management team may resign at any time. The loss of the services of any members of our senior management team could delay or prevent the successful implementation of our strategy or our commercialization of new applications for our systems or other offerings, or could otherwise adversely affect our ability to manage our company effectively and carry out our business plan. Two of our senior executives left the company in 2022, and there is no assurance that if any senior executive leaves in the future, we will be able to rapidly replace him or her and transition smoothly towards his or her successor, without any adverse impact on our operations.

In particular, the loss of the services of Greg Kress, our Chief Executive Officer, could severely damage our business and prospects for growth. Mr. Kress is subject to a non-competition agreement and a proprietary information and inventions agreement which include restrictive covenants. We cannot assure you that if Mr. Kress were to breach these restrictive covenants a court would enforce them and enjoin him from engaging in activities in violation thereof. Moreover, we would have to rescind Mr. Kress' non-competition agreement if the proposed FTC rule goes into effect. The loss of Mr. Kress' services could delay or prevent the successful implementation of our strategy or our commercialization of new applications for our systems or other offerings, or could otherwise adversely affect our ability to manage our company effectively and carry out our business plan, and consequently could have a materially adverse effect on our business, results of operations and financial condition.

Our current levels of insurance may not be adequate for our potential liabilities.

We maintain insurance to cover our potential exposure for most claims and losses, including potential product and non-product related claims, lawsuits, and administrative proceedings seeking damages or other remedies arising out of our commercial operations. However, our insurance coverage is subject to various exclusions, self-retentions, and deductibles. We may be faced with types of liabilities that are not covered under our insurance policies, such as environmental contamination or terrorist attacks, or that exceed our policy limits. Even a partially uninsured claim of significant size, if successful, could have an adverse effect on our financial condition.

In addition, we may not be able to continue to obtain insurance coverage on commercially reasonable terms, or at all, and our existing policies may be cancelled or otherwise terminated by the insurer. Maintaining adequate insurance and successfully accessing insurance coverage that may be due for a claim can require a significant amount of our management's time, and we may be forced to spend a substantial amount of money in that process.

Our actual results may be significantly different from our projections, estimates, targets or forecasts.

Any projections, estimates, targets, and forecasts we may provide from time to time are forward-looking statements that are based on assumptions that are inherently subject to significant uncertainties and contingencies, many of which are beyond our control. While all projections, estimates, targets and forecasts are necessarily speculative, we believe

that the preparation of prospective financial information involves increasingly higher levels of uncertainty the further out the projection, estimate, target, or forecast extends from the date of preparation. The assumptions and estimates underlying the projected, expected, or target results are inherently uncertain and are subject to a wide variety of significant business, economic, regulatory and competitive risks and uncertainties that could cause actual results to differ materially from those contained in such projections, estimates, targets and forecasts. Our projections, estimates, targets and forecast should not be regarded as an indication that Shapeways or its representatives, considered or consider the financial projections, estimates, targets to be a reliable prediction of future events.

Risks Related to Our Industry

If demand for our services does not grow as expected, or if market adoption of digital manufacturing does not continue to develop, or develops more slowly than expected, our revenues may stagnate or decline, and our business may be adversely affected.

The industrial manufacturing market, which today is dominated by conventional manufacturing processes that do not involve digital manufacturing technology, is undergoing a shift towards digital manufacturing. We may not be able to develop effective strategies to raise awareness among potential customers of the benefits of digital manufacturing technologies or our offerings may not address the specific needs or provide the level of functionality required by potential customers to encourage the continuation of this shift towards digital manufacturing. If digital manufacturing technology does not continue to gain broader market acceptance as an alternative to conventional manufacturing processes, or if the marketplace adopts digital manufacturing technologies developed by our competitors, we may not be able to increase or sustain the level of sales of our services, and our operating results would be adversely affected as a result.

We could face liability if our digital manufacturing solutions are used by our customers to print dangerous objects.

Customers may use our digital manufacturing systems to print parts that could be used in a harmful way or could otherwise be dangerous. For example, there have been news reports that 3D printers were used to print guns or other weapons. We have little, if any, control over what objects our customers print using our offerings, and it may be difficult, if not impossible, for us to monitor and prevent customers from printing weapons with our services. There can be no assurance that we will not be held liable if someone were injured or killed by a weapon or other dangerous object containing a component part or parts manufactured for a customer using one of our offerings.

Risks Related to Intellectual Property and Infrastructure

We may incur substantial costs enforcing or acquiring intellectual property rights and defending against third-party claims as a result of litigation or other proceedings. Our failure to expand our intellectual property portfolio could adversely affect the growth of our business and results of operations.

We may incur substantial expense and costs in protecting, enforcing, and defending our intellectual property rights against third parties. Intellectual property disputes may be costly and can be disruptive to our business operations by diverting attention and energies of management and key technical personnel and by increasing our costs of doing business. Third-party intellectual property claims asserted against us could subject us to significant liabilities, require us to enter into royalty and licensing arrangements on unfavorable terms, prevent us from providing our services to our customers, subject us to injunctions prohibiting or restricting our sale of our services, or require us to redesign our services, causing severe disruptions to our operations or the marketplaces in which we compete or require us to satisfy indemnification commitments with our customers, including contractual provisions under various license arrangements. In addition, we may incur significant costs in acquiring the necessary third-party intellectual property rights for use in our offerings. Any of these could have an adverse effect on our business and financial condition.

Patent applications in the United States and most other countries are confidential for a period of time until they are published, and the publication of discoveries in scientific or patent literature typically lags actual discoveries by several months or more. As a result, the nature of claims contained in unpublished patent filings around the world is unknown to us, and we cannot be certain that we were the first to conceive inventions covered by our patents or patent applications or that we were the first to file patent applications covering such inventions. Furthermore, it is not possible to know in which countries patent holders may choose to extend their filings under the Patent Cooperation Treaty or other mechanisms.

In addition, we may be subject to intellectual property infringement claims from individuals, vendors and other companies, including those that are in the business of asserting patents, but are not commercializing products or services in

the field of digital manufacturing, or our customers may seek to invoke indemnification obligations to involve us in such intellectual property infringement claims. Furthermore, although we maintain certain procedures to screen items we manufacture on behalf of customers for infringement on the intellectual property rights of others, we cannot be certain that our procedures will be effective in preventing any such infringement. Any third-party lawsuits or other assertion to which we are subject, alleging infringement of trademarks, patents, trade secrets or other intellectual property rights either by us or by our customers may have a significant adverse effect on our financial condition.

We may not be able to adequately protect or enforce our intellectual property rights, which could impair our competitive position.

Our success and future revenue growth will depend, in part, on our ability to protect our intellectual property. We rely primarily on patents, licenses, trademarks, and trade secrets, as well as non-disclosure agreements and other methods, to protect our proprietary technologies and processes globally. Despite our efforts to protect our proprietary technologies and processes, it is possible that competitors or other unauthorized third parties may obtain, copy, use, or disclose our technologies and processes or invent around our patents. We cannot assure you that any of our existing or future patents will not be challenged or invalidated in court or patent office proceedings that could be time-consuming, expensive, and distract us from the operating our business. In addition, competitors could circumvent our patents by inventing around them. As such, any rights granted under these patents may not provide us with meaningful protection. We may not be able to obtain foreign patents corresponding to our United States patents. Even if foreign patents are granted, effective enforcement in foreign countries may not be available. If our patents and other intellectual property do not adequately protect our technology, our competitors may be able to offer services similar to ours. Our competitors may also be able to develop similar technology independently or design around our patents. Any of the foregoing events would lead to increased competition and lower revenue or gross margin, which would adversely affect our business and results of operation.

Our digital manufacturing software contains third-party open-source software components. Our use of such open- source software may expose us to additional risks and harm our intellectual property and failure to comply with the terms of the underlying open-source software licenses could restrict our ability to sell our offerings.

Our digital manufacturing software contains components that are licensed under so-called “open source,” “free,” or other similar licenses. Open source software is made available to the general public on an “as-is” basis under the terms of a non-negotiable license. We currently combine our proprietary software with open source software, but not in a manner that we believe requires the release of the source code of our proprietary software to the public. We do not plan to integrate our proprietary software with open source software in ways that would require the release of the source code of our proprietary software to the public; however, our use and distribution of open source software may entail greater risks than use of third-party commercial software. Open source licensors generally do not provide warranties or other contractual protections regarding infringement claims or the quality of the code. In addition, if we combine our proprietary software with open source software in a certain manner, we could, under certain open source licenses, be required to release to the public or remove the source code of our proprietary software. In line with what we believe is standard practice among technology companies, we leverage open source software in the development of our internal software. Open source software is commonly used as a foundation which we develop upon, allowing us to customize the software based on our specific needs. This enables faster development of software, with higher quality, supported by a larger community of developers. We may also face claims alleging noncompliance with open source license terms or infringement or misappropriation of proprietary software. These claims could result in litigation, require us to purchase a costly license, or remove the software. In addition, if the license terms for open source software that we use change, we may be forced to re-engineer our solutions, incur additional costs, or discontinue the sale of our offerings if re-engineering could not be accomplished on a timely basis. Although we monitor our use of open source software to avoid subjecting our offerings to unintended conditions, there is a risk that these licenses could be construed in a way that could impose unanticipated conditions or restrictions on our ability to commercialize our offerings. We cannot guarantee that we have incorporated open source software in our software in a manner that will not subject us to liability or in a manner that is consistent with our current policies and procedures.

We store confidential customer information in our systems that, if breached or otherwise subjected to unauthorized access, may harm our reputation or brand or expose us to liability.

Our system stores, processes, and transmits our customers' confidential information, including the intellectual property in their part designs, credit card information, and other sensitive data. We rely on encryption, authentication, and other technologies licensed from third parties, as well as administrative and physical safeguards, to secure such confidential information. Any compromise of our information security could damage our reputation and brand and expose us to a risk of loss, costly litigation, and liability that would substantially harm our business and operating results. We may not have adequately assessed the internal and external risks posed to the security of our company's systems and information and may not have implemented adequate preventative safeguards or take adequate reactionary measures in the event of a security incident. During times of war and other major conflicts, we and the third parties upon which we rely may be vulnerable to a heightened risk of these incidents, including cyber-attacks, which could materially disrupt our systems and operations, supply chain, and ability to produce and sell our products and services. We utilize third-party service providers to host, transmit, or otherwise process electronic data in connection with our business. We or our third-party service providers may experience social-engineering attacks, malicious code, malware, denial-of-service attacks, unavailable systems, unauthorized access or disclosure due to employee or other theft, misconduct or misuse, sophisticated attacks by nation-state and nation-state supported actors, advanced persistent threat intrusions, ransomware attacks, supply-chain attacks, software bugs, server malfunctions, software or hardware failures, loss of data or other information technology assets, adware, telecommunications failures, and other similar threats. Future or past business transactions (such as acquisitions) could expose us to additional cybersecurity risks and vulnerabilities, as our systems could be negatively affected by vulnerabilities present in acquired entities' systems and technologies.

While we and our third-party service providers have implemented a number of security measures designed to protect against security breaches, these measures could fail or may be insufficient, resulting in the unauthorized disclosure, modification, misuse, unavailability, destruction, or loss of our or our customers' or employees' data or other sensitive information. A security incident or other interruption could disrupt the ability to provide our platform. We may be unable to detect vulnerabilities in our information technology systems because such threats and techniques change frequently, are often sophisticated in nature, and may not be detected until after a security incident has occurred. Any security breach, or the perception that one has occurred, could result in litigation, indemnity obligations, regulatory enforcement actions, investigations, fines, penalties, mitigation and remediation costs, disputes, reputational harm, diversion of management's attention, and other liabilities and damage to our business. Even though we do not control the security measures of third parties, we may be perceived or asserted to be responsible for any breach of such measures or suffer reputational harm.

In addition, most states have enacted laws requiring companies to notify individuals and often state authorities of data security breaches involving their personal data. These mandatory disclosures regarding a security breach often lead to widespread negative publicity, which may cause our existing and prospective customers to lose confidence in the effectiveness of our data security measures. Any security breach, whether successful or not, would harm our reputation and brand and could cause the loss of customers.

A real or perceived defect, security vulnerability, error, or performance failure in our software or technical problems or disruptions caused by our third-party service providers could cause us to lose revenue, damage our reputation, and expose us to liability.

Our business relies on software products which are inherently complex and, despite extensive testing and quality control, have in the past and may in the future contain defects or errors, especially when first introduced, or otherwise not perform as contemplated. As the use of our platform expands, we may be subject to increased scrutiny, potential reputational risk, or potential liability should our software fail to perform as contemplated in such deployments. We have in the past and may in the future need to issue corrective releases of our software to fix these defects, errors, or performance failures and we may encounter technical problems when we attempt to perform routine maintenance or enhance our software, internal applications, and systems, which could require us to allocate significant research and development and customer support resources to address these problems and divert the focus of our management and research and development teams. See "Risks Related to Our Business—Interruptions, delays in service or inability to increase capacity, including internationally, at third-party data center facilities could adversely affect our business and reputation."

Any inefficiencies, security vulnerabilities, errors, defects, technical problems, or performance failures with our software, internal applications, and systems could reduce the quality of our services or interfere with our customers' (and their users') products, which could negatively impact our brand and reputation, reduce demand, lead to a loss of customers or revenue, adversely affect our results of operations and financial condition, increase our costs to resolve such issues, and

subject us to financial penalties and liabilities under our service level agreements. Any limitation of liability provisions that may be contained in our customer agreements may not be effective as a result of existing or future applicable law or unfavorable judicial decisions. The sale and support of our software offering entails the risk of liability claims, which could be substantial in light of the use of our software offering in enterprise-wide environments. In addition, our insurance against this liability may not be adequate to cover a potential claim.

Risks Related to Our Legal and Regulatory Environment

We are subject to environmental, health, and safety laws and regulations related to our operations and the use of our digital manufacturing systems and consumable materials, which could subject us to compliance costs and/or potential liability in the event of non-compliance.

We are subject to domestic and foreign environmental laws and regulations governing our manufacturing operations, including, but not limited to, emissions into the air and water and the use, handling, disposal, and remediation of hazardous substances. A certain risk of environmental liability is inherent in our production activities. These laws and regulations govern, among other things, the generation, use, storage, registration, handling, and disposal of chemicals and waste materials, the presence of specified substances in electrical products, the emission and discharge of hazardous materials into the ground, air or water, the cleanup of contaminated sites, including any contamination that results from spills due to our failure to properly dispose of chemicals and other waste materials and the health and safety of our employees. Under these laws, regulations and requirements, we could also be subject to liability for improper disposal of chemicals and waste materials, including those resulting from the use of our systems and accompanying materials by end- users. Accidents or other incidents that occur at our facilities or involve our personnel or operations could result in claims for damages against us. In the event we are found to be financially responsible, as a result of environmental or other laws or by court order, for environmental damages alleged to have been caused by us or occurring on our premises, we could be required to pay substantial monetary damages or undertake extensive remedial obligations. If our operations fail to comply with such laws or regulations, we may be subject to fines and other civil, administrative, or criminal sanctions, including the revocation of permits and licenses necessary to continue our business activities. In addition, we may be required to pay damages or civil judgments in respect of third-party claims, including those relating to personal injury (including exposure to hazardous substances that we generate, use, store, handle, transport, manufacture, or dispose of), property damage, or contribution claims. Some environmental laws allow for strict, joint and several liabilities for remediation costs, regardless of fault. We may be identified as a potentially responsible party under such laws. The amount of any costs, including fines or damages payments that we might incur under such circumstances, could substantially exceed any insurance we have to cover such losses. Any of these events, alone or in combination, could have a material adverse effect on our business, financial condition, and results of operations and could adversely affect our reputation.

The export of our offerings internationally from our production facilities subjects us to environmental laws and regulations concerning the import and export of chemicals and hazardous substances such as the United States Toxic Substances Control Act and the Registration, Evaluation, Authorization, and Restriction of Chemical Substances. These laws and regulations require the testing and registration of some chemicals that we ship along with, or that form a part of, our systems and other products. If we fail to comply with these or similar laws and regulations, we may be required to make significant expenditures to reformulate the chemicals that we use in our offerings and materials or incur costs to register such chemicals to gain and/or regain compliance. Additionally, we could be subject to significant fines or other civil and criminal penalties should we not achieve such compliance.

The cost of complying with current and future environmental, health, and safety laws applicable to our operations, or the liabilities arising from past releases of, or exposure to, hazardous substances, may result in future expenditures. Any of these developments, alone or in combination, could have an adverse effect on our business, financial condition, and results of operations.

Our business involves the use of hazardous materials, and we must comply with environmental, health, and safety laws and regulations, which can be expensive and restrict how we do business.

Our business involves the controlled storage, use, and disposal of hazardous materials. We and our suppliers are subject to federal, state, and local as well as foreign laws and regulations governing the use, manufacture, storage, handling, and disposal of these hazardous materials. Although we believe that the safety procedures utilized by us and our suppliers for handling and disposing of these materials comply with the standards prescribed by these laws and regulations, we cannot eliminate the risk of accidental contamination or injury from these materials. In the event of an accident, state, federal, or foreign authorities may curtail the use of these materials and interrupt our business operations. We do not

currently maintain hazardous materials insurance coverage. If we are subject to any liability as a result of activities involving hazardous materials, our business and financial condition may be adversely affected and our reputation and brand may be harmed.

Regulation in the areas of privacy, data protection, and information security could increase our costs and affect or limit our business opportunities and how we collect and/or use personal information.

We collect personal information from our employees, prospects, and our customers. Privacy and security laws and regulations may limit the use and disclosure of certain information and require us to adopt certain cybersecurity and data handling practices that may affect our ability to effectively market our services to current, past, or prospective customers. We must comply with privacy laws in the United States, Europe, and elsewhere, including the General Data Protection Regulations, or GDPR in the European Union, which became effective May 25, 2018, and the California Consumer Privacy Act of 2018, or CCPA, which became effective on January 1, 2020. California's latest amendment to the law, the California Privacy Rights Act of 2020, or CPRA, which substantially expands the CCPA, became effective as of January 1, 2023. Virginia, Colorado, Connecticut, Utah and Iowa have also passed comprehensive privacy laws, the majority of which have taken or will take effect in 2023. While these new state privacy laws emulate the CCPA/CPRA and GDPR in many respects, each has requirements that will require particular assessment. Additionally, ongoing interpretations and enforcement of international privacy laws continue to amend or add to existing compliance obligations, such as under the GDPR with respect to international data transfers. On October 7, 2022, President Biden executed an Executive Order to implement a new European Union-U.S. Data Privacy Framework to address European concerns over international data transfers, which became effective in July 2023. A patchwork of differing and evolving international and domestic privacy and data security requirements may increase the cost and complexity of operating our business and increase our exposure to liability.

These privacy laws create new individual privacy rights and impose increased obligations, including disclosure obligations, on companies handling personal information. Each jurisdiction in the U.S. and European Union have its own obligations surrounding notice of personal data breaches to consumers, and such notification requirements continue to increase in scope and cost. Privacy and security laws and regulations may limit the use and disclosure of certain personal information and require us to adopt certain cybersecurity and data handling practices that may affect our ability to process certain personal information including with respect to marketing our services to current, past, or prospective customers. While we have invested in, and intend to continue to invest in, resources to comply with these standards, we may not be successful in doing so, and any such failure could have an adverse effect on our business, operations, and reputation.

As privacy, data use, and cyber security laws are interpreted and applied, compliance costs may increase, particularly in the context of ensuring that adequate data protection and data transfer mechanisms are in place as we continue to expand. In recent years, there has been increasing regulatory enforcement and litigation activity internationally in this area, including in the United States and the Netherlands in which we operate.

Lastly, privacy laws applicable to the Asian Pacific region ("APAC") will come with a new set of privacy laws, each which may differ greatly from one another as well as from the GDPR or CPRA. To the extent we expand into Asian markets, we may need to significantly increase our investment in resources to comply with such laws, which will require localized advice and strategy. Any failure to expand into APAC in a compliant manner could have an adverse effect on our business, results of operations, and reputation.

We are subject to U.S. and foreign anti-corruption laws, trade controls, economic sanctions, and similar laws and regulations. Our failure to comply with these laws and regulations could subject us to civil, criminal, and administrative penalties and harm our reputation.

We have partners in a number of countries throughout the world, including countries known to have a reputation for corruption. Doing business on a global basis requires us to comply with anti-corruption laws and regulations imposed by governments around the world with jurisdiction over our operations, including the U.S. Foreign Corrupt Practices Act and the U.K. Bribery Act 2010, as well as the laws of the countries where we do business. We are also subject to various trade restrictions, including trade and economic sanctions and export controls, imposed by governments around the world with jurisdiction over our operations. For example, in accordance with trade sanctions administered by the Office of Foreign Assets Control and the U.S. Department of Commerce, we are prohibited from engaging in transactions involving certain persons and certain designated countries or territories, including Cuba, Iran, Syria, North Korea, and the Crimea Region of Ukraine. In addition, our offerings are subject to export regulations that can involve significant compliance time and may add additional overhead cost to our offerings. In recent years, the U.S. government has had a renewed focus on

export matters. For example, the Export Control Reform Act of 2018 and regulatory guidance have imposed additional controls, and may result in the imposition of further additional controls, on the export of certain “emerging and foundational technologies.” Our current and future offerings may be subject to these heightened regulations, which could increase our compliance costs.

The requirements of being a public company may strain our resources, divert management’s attention, and affect our ability to attract and retain qualified board members.

We are subject to the reporting requirements of the Securities Exchange Act, of 1934, as amended (the “Exchange Act”), the Sarbanes-Oxley Act of 2002 (the “Sarbanes-Oxley Act”) and any rules promulgated thereunder, as well as the rules of the The Nasdaq Stock Market (“Nasdaq”). The requirements of these rules and regulations have increased our legal and financial compliance costs, made some activities more difficult, time-consuming, or costly, and increased demand on our systems and resources. We intend to continue investing substantial resources to comply with evolving laws, regulations, and standards, and this investment may result in increased general and administrative expenses and a diversion of management’s time and attention from business operations to compliance activities.

The Sarbanes-Oxley Act requires, among other things, that we maintain effective disclosure controls and procedures and internal controls for financial reporting. In order to maintain disclosure controls and procedures and internal control over financial reporting that meet these standards, significant resources and management oversight are required, and, as a result, management’s attention may be diverted from other business concerns. Although we have already hired additional employees to assist us in complying with these requirements, we may need to hire more employees in the future or engage outside consultants, which will increase our operating expenses.

Changing laws, regulations, and standards relating to corporate governance and public disclosure are creating uncertainty for public companies, increasing legal and financial compliance costs, and making some activities more time-consuming. These factors may also make it difficult for us to attract and retain qualified independent members of our Board of Directors.

As a result of disclosure of information in filings required of a public company, our business and financial condition have become more visible than they were in the past, which may result in an increased risk of threatened or actual litigation, including by competitors and other third parties. If such claims are successful, our business and results of operations could be harmed, and even if the claims do not result in litigation or are resolved in our favor, these claims, and the time and resources necessary to resolve them, could divert the resources of our management and harm our business, results of operations, and financial condition.

If our internal control over financial reporting or our disclosure controls and procedures are not effective, we may be unable to accurately report our financial results, prevent fraud, or file our periodic reports in a timely manner, which may cause investors to lose confidence in our reported financial information and may lead to a decline in our stock price.

We are required to comply with certain requirements of the Sarbanes-Oxley Act, and will be required to comply with additional such requirements following the date we are deemed to be an “accelerated filer” or a “large accelerated filer,” each as defined in the Exchange Act. The standards required for a public company under Section 404(a) of the Sarbanes-Oxley Act are significantly more stringent than those previously required of us as a privately-held company, and requires that we maintain effective internal control over financial reporting and disclosure controls and procedures. In particular, we are required to perform system and process evaluation, document our controls, and perform testing of our key controls over financial reporting to allow management certify on the effectiveness of our internal control over financial reporting, as required by Section 404(a) of the Sarbanes-Oxley Act. When we cease to be an “emerging growth company,” we will also be subject to auditor attestation requirements of Section 404(b) of the Sarbanes-Oxley Act and the relevant increased disclosure obligations. Deficiencies in our internal control over financial reporting may be found that may be deemed to be material weaknesses. If we are not able to comply with the requirements of Section 404 in a timely manner, or if we identify deficiencies in our internal control over financial reporting that are deemed to be material weaknesses, the market price of our common stock would likely decline and we could be subject to lawsuits, sanctions, or investigations by regulatory authorities, which would require additional financial and management resources and could harm investor confidence in our business.

We are an “emerging growth company” and a “smaller reporting company” and the reduced disclosure requirements applicable to emerging growth companies and smaller reporting companies may make our common stock less attractive to investors.

We are an “emerging growth company,” as defined in the JOBS Act. As an emerging growth company, we may follow reduced disclosure requirements and do not have to make all of the disclosures that public companies that are not emerging growth companies do. We will remain an emerging growth company until the earlier of (a) the last day of the fiscal year in which we have total annual gross revenues of \$1.235 billion or more; (b) the last day of the fiscal year following the fifth anniversary of the date of the completion of the initial public offering of our predecessor, Galileo Acquisition Corp. (“Galileo”); (c) the date on which we have issued more than \$1 billion in nonconvertible debt during the previous three years; or (d) the date on which we are deemed to be a “large accelerated filer” under the rules of the SEC, which means the market value of our common stock that is held by non-affiliates exceeds \$700 million as of the prior June 30th. For so long as we remain an emerging growth company, we are permitted and intend to rely on exemptions from certain disclosure requirements that are applicable to other public companies that are not emerging growth companies.

In addition, the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. This allows an emerging growth company to delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have elected to use the extended transition period for complying with new or revised accounting standards; as a result of this election, our financial statements may not be comparable to companies that comply with public company effective dates.

We have chosen and may continue to choose to take advantage of certain of the available exemptions for emerging growth companies. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our share price may be more volatile.

Risks Relating to Ownership of Our Common Stock

An active, liquid trading market for our common stock may not be sustained.

Our common stock is listed on the Nasdaq under the symbol “SHPW.” However, we cannot assure you that an active trading market for our common stock will be sustained. Our securities are very thinly traded. Accordingly, it may be difficult to sell shares of our common stock without significantly depressing the value of the stock. A public trading market having the desirable characteristics of depth, liquidity and orderliness depends upon the existence of willing buyers and sellers at any given time, such existence being dependent upon the individual decisions of buyers and sellers over which neither we nor any market maker has control. Unless we are successful in developing continued investor interest in our stock, sales of our stock could result in major fluctuations in the price of the stock. The inactive market for our stock may also impair our ability to raise capital to continue to fund operations by issuing equity and may impair our ability to acquire other companies or technologies by using common stock as consideration.

Our issuance of additional shares of common stock or convertible securities may dilute your ownership of us and could adversely affect our stock price.

From time to time in the future, we may issue additional shares of our common stock or securities convertible into or exercisable for our common stock pursuant to a variety of transactions, including acquisitions. Additional shares of our common stock may also be issued upon exercise of outstanding stock options and warrants to purchase our common stock. The issuance by us of additional shares of our common stock or securities convertible into or exercisable for our common stock would dilute your ownership of us and the sale of a significant amount of such shares in the public market could adversely affect prevailing market prices of our common stock. Subject to the satisfaction of vesting conditions and the expiration of lockup agreements, shares issuable upon exercise of options will be available for resale immediately in the public market without restriction.

Issuing additional shares of our capital stock, other equity securities, or securities convertible into equity may dilute the economic and voting rights of our existing stockholders, reduce the market price of our common stock, or both. Debt securities convertible into equity could be subject to adjustments in the conversion ratio pursuant to which certain events may increase the number of equity securities issuable upon conversion. Preferred stock, if issued, could have a preference with respect to liquidating distributions or a preference with respect to dividend payments that could limit our ability to pay dividends to the holders of our common stock. Our decision to issue securities in any future offering will

depend on market conditions and other factors beyond our control, which may adversely affect the amount, timing, or nature of our future offerings. As a result, holders of our common stock bear the risk that our future offerings may reduce the market price of our common stock and dilute their percentage ownership.

On October 6, 2022, we filed a universal shelf registration statement, which permits us to offer up to \$50.0 million in the aggregate of certain securities in one or more offerings and in any combination, including in units from time to time, subject to certain limitations. Further, as part of the shelf registration statement, we may also sell up to \$13.25 million in the aggregate of shares of common stock pursuant to our ATM Facility, subject to certain limitations. The sale of a substantial number of shares pursuant to our ATM Facility, any securities pursuant to the shelf registration statement or otherwise, or anticipation of any such sales, could cause the trading price of our common stock to decline or make it more difficult for us to sell equity or equity-related securities in the future at a time and at a price that we might otherwise desire. In addition, issuances of any shares of our common stock sold pursuant to the ATM Facility or any securities sold pursuant to the shelf registration statement may have a dilutive effect on our existing stockholders. As of June 30, 2023, no sales of shares pursuant to our ATM Facility had been effected.

Future sales, or the perception of future sales, of our common stock by us or our existing stockholders in the public market could cause the market price for our common stock to decline.

The sale of substantial amounts of shares of our common stock in the public market, including in connection with the expiration of lock-up restrictions or the ATM Facility, or the perception that such sales could occur, could harm the prevailing market price of shares of our common stock. Furthermore, shares of our common stock reserved for future issuance under our equity plans may become available for sale in the future. These sales, or the possibility that these sales may occur, also 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. Additionally, to the extent our warrants are exercised, additional shares of common stock will be issued, which will result in dilution to the holders of common stock and increase the number of shares eligible for resale in the public market. However, there is no guarantee that the warrants will ever be in the money prior to their expiration, and as such, the warrants may expire worthless.

Our operating results and financial condition may fluctuate on a quarterly and annual basis.

Our operating results and financial condition fluctuate from quarter-to-quarter and year-to-year and are likely to continue to vary due to a number of factors, many of which are not within our control. Both our business and the digital manufacturing industry are changing and evolving rapidly, and our historical operating results may not be useful in predicting our future operating results. If our operating results do not meet the guidance that we provide to the marketplace or the expectations of securities analysts or investors, the market price of our common stock will likely decline. Fluctuations in our operating results and financial condition may be due to a number of factors, including:

- the degree of market acceptance of digital manufacturing and, specifically, our services;
- our ability to compete with competitors and new entrants into our markets;
- the mix of offerings that we sell during any period;
- the timing of our sales and deliveries of our offerings to customers;
- the geographic distribution of our sales;
- seasonality of our manufacturing business and timing of certain new product offerings;
- changes in our pricing policies or those of our competitors, including our response to price competition;
- changes in the amount that we spend to develop and manufacture new technologies;
- changes in the amounts that we spend to promote our services;
- expenses and/or liabilities resulting from litigation;
- delays between our expenditures to develop and market new or enhanced solutions and the generation of revenue from those solutions;
- unforeseen liabilities or difficulties in integrating our acquisitions or newly acquired businesses;
- disruptions to our information technology systems;
- general economic and industry conditions that affect customer demand, including increasing inflation and interest rates; and

- changes in accounting rules and tax laws.

In addition, our revenues and operating results may fluctuate from quarter-to-quarter and year-to-year due to our sales cycle and seasonality among our customers. Generally, our digital manufacturing solutions are subject to the adoption and capital expenditure cycles of our customers. Additionally, for our more complex solutions, which may require additional facilities investment, potential customers may spend a substantial amount of time performing internal assessments prior to making a purchase decision. This may cause us to devote significant effort in advance of a potential sale without any guarantee of receiving any related revenues. As a result, revenues and operating results for future periods are difficult to predict with any significant degree of certainty, which could lead to adverse effects on our inventory levels and overall financial condition.

Due to the foregoing factors, and the other risks discussed in this Part II, Item 1A: “Risk Factors,” you should not rely on quarter-over-quarter comparisons of our operating results as an indicator of our future performance.

Our stock price has been and may continue to be volatile or may decline regardless of our operating performance. You may lose some or all of your investment.

The trading price of our common stock has been and may continue to be volatile. The stock market recently has experienced extreme volatility. This volatility often has been unrelated or disproportionate to the operating performance of particular companies. You may not be able to resell your shares at an attractive price due to a number of factors such as those listed in this section and the following:

- our operating and financial performance and prospects;
- our quarterly or annual earnings or those of other companies in our industry compared to market expectations;
- conditions that impact demand for our services;
- future announcements concerning our business, our customers’ businesses, or our competitors’ businesses;
- the public’s reaction to our press releases, other public announcements, and filings with the SEC;
- the market’s reaction to our reduced disclosure and other requirements as a result of being an “emerging growth company” under the JOBS Act or a “smaller reporting company”;
- the size of our public float;
- coverage by or changes in financial estimates by securities analysts or failure to meet their expectations;
- market and industry perception of our success, or lack thereof, in pursuing our growth strategy;
- strategic actions by us or our competitors, such as acquisitions or restructurings;
- changes in laws or regulations which adversely affect the manufacturing industry generally or Shapeways specifically;
- changes in accounting standards, policies, guidance, interpretations, or principles;
- changes in senior management or key personnel;
- issuances, exchanges or sales, or expected issuances, exchanges, or sales of our capital stock;
- changes in our dividend policy;
- adverse resolution of new or pending litigation against us; and
- changes in general market, economic, and political conditions in the United States and global economies or financial markets, including those resulting from natural disasters, terrorist attacks, acts of war or other military conflicts, and responses to such events.

These broad market and industry factors may materially reduce the market price of our common stock, regardless of our operating performance. In addition, price volatility may be greater if the public float and trading volume of our common stock continues to be low. As a result, you may suffer a loss on your investment.

If securities or industry analysts publish inaccurate or unfavorable research or reports about our business, our stock price and trading volume could decline.

The trading market for our common stock depends, in part, on the research and reports that third-party securities analysts publish about us and the industry in which we operate. We may be unable or slow to attract research coverage and if one or more analysts cease coverage of us, the price and trading volume of our securities would likely be negatively impacted. If any of the analysts that may cover us change their recommendation regarding our common stock adversely, or provide more favorable relative recommendations about our competitors, the price of our common stock would likely decline. If any analyst that may cover us ceases covering us or fails to regularly publish reports on us, we could lose visibility in the financial markets, which could cause the price or trading volume of our common stock to decline. Moreover, if one or more of the analysts who cover us downgrade our common stock, or if our reporting results do not meet their expectations, the market price of our common stock could decline.

We do not expect to pay any cash dividends for the foreseeable future.

We currently intend to retain all available funds and any future earnings to fund the development and growth of our business. As a result, we do not anticipate declaring or paying any cash dividends on our common stock in the foreseeable future. Any decision to declare and pay dividends in the future will be made at the discretion of our Board of Directors and will depend on, among other things, our business prospects, results of operations, financial condition, cash requirements and availability, certain restrictions related to our indebtedness, industry trends, and other factors that our Board of Directors may deem relevant. In addition, we may incur additional indebtedness, the terms of which may further restrict or prevent us from paying dividends on our common stock. As a result, you may have to sell some or all of your common stock after price appreciation in order to generate cash flow from your investment, which you may not be able to do. Our inability or decision not to pay dividends, particularly when others in our industry have elected to do so, could also adversely affect the market price of our common stock.

We may be subject to securities litigation, which is expensive and could divert management attention.

The market price of our common stock has been and may continue to be volatile and, in the past, companies that have experienced volatility in the market price of their stock have been subject to securities litigation, including class action litigation. Litigation of this type could result in substantial costs and diversion of management's attention and resources, which could have a material adverse effect on our business, financial condition, and results of operations. Any adverse determination in litigation could also subject us to significant liabilities.

Delaware law and provisions in our charter and bylaws could make a merger, tender offer, or proxy contest difficult, thereby depressing the trading price of our common stock.

Our charter, bylaws, and Delaware law contain provisions that could depress the trading price of our common stock by acting to discourage, delay, or prevent a change of control of Shapeways or changes in Shapeways that our management or stockholders may deem advantageous. Among other things, our charter and bylaws include the following provisions which:

- provide for a classified board of directors so that not all members of our Board of Directors are elected at one time;
- permit the Board of Directors to establish the number of directors and fill any vacancies and newly created directorships;
- provide that directors may only be removed for cause and only by a super majority vote;
- require super-majority voting to amend certain provisions of our charter and any provision of our bylaws;
- authorize the issuance of "blank check" preferred stock that our Board of Directors could use to implement a stockholder rights plan;
- eliminate the ability of our stockholders to call special meetings of stockholders;
- prohibit stockholder action by written consent, which requires all stockholder actions to be taken at a meeting of our stockholders;
- provide that the Board of Directors is expressly authorized to make, alter, or repeal our bylaws; and

- establish advance notice requirements for nominations for election to our Board of Directors or for proposing matters that can be acted upon by stockholders at annual stockholder meetings.

These provisions, alone or together, could delay or prevent hostile takeovers and changes in control or changes in our management. As a Delaware corporation, we are also subject to provisions of Delaware law, including Section 203 of the Delaware General Corporation Law ("DGCL") which prevents interested stockholders, such as certain stockholders holding more than 15% of our outstanding common stock, from engaging in certain business combinations unless (i) prior to the time such stockholder became an interested stockholder, our Board of Directors approved the transaction that resulted in such stockholder becoming an interested stockholder, (ii) upon consummation of the transaction that resulted in such stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of our common stock, or (iii) following board approval, such business combination receives the approval of the holders of at least two-thirds of our outstanding common stock not held by such interested stockholder at an annual or special meeting of stockholders.

Any provision of our charter, bylaws, or Delaware law that has the effect of delaying, preventing, or deterring a change in control could limit the opportunity for our stockholders to receive a premium for their shares of our common stock and could also affect the price that some investors are willing to pay for our common stock.

Our charter provides that the Court of Chancery of the State of Delaware and the federal district courts of the United States will be the exclusive forum for substantially all disputes between us and our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers, or employees.

Our charter provides that the Court of Chancery of the State of Delaware is the exclusive forum for any derivative action or proceeding brought on our behalf, any action asserting a breach of fiduciary duty, any action asserting a claim against us arising pursuant to the DGCL, our charter or bylaws, or any action asserting a claim against us that is governed by the internal affairs doctrine. In addition, if an action is brought outside of Delaware, the stockholder bringing the suit will be deemed to have consented to service of process on such stockholder's counsel.

Our charter provides that any person or entity purchasing or otherwise acquiring or holding any interest in shares of our capital stock shall be deemed to have notice of and consented to the foregoing choice of forum provision.

This provision would not apply to claims brought to enforce a duty or liability created by the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction. Our charter provides further that, unless the Company consents in writing to the selection of an alternative forum, the federal district courts of the United States shall, to the fullest extent permitted by law, be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act. These choices of forum provisions may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers, or other employees and may discourage these types of lawsuits. Furthermore, the enforceability of similar choice of forum provisions in other companies' certificates of incorporation has been challenged in legal proceedings, and it is possible that a court could find these types of provisions to be inapplicable or unenforceable. While the Delaware courts have determined that such choice of forum provisions are facially valid, a stockholder may nevertheless seek to bring a claim in a venue other than those designated in the exclusive-forum provisions, and there can be no assurance that such provisions will be enforced by a court in those other jurisdictions. If a court were to find the exclusive-forum provision contained in our charter to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could harm our business.

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

In April 2023, we issued 156,658 shares of common stock to Linear Acquisition, LLC, in satisfaction of the equity portion of the earnout consideration liability for our April 2022 acquisition of Linear AMS, which securities were valued at approximately \$537,000. For more detail regarding the transaction, see Note 4 – Business Acquisitions to the unaudited condensed consolidated financial statements included in ITEM 1, Part I of this Report. We issued the foregoing securities in transactions not involving an underwriter and not requiring registration under Section 5 of the Securities Act, in reliance on the exemption afforded by Section 4(a)(2) thereof.

Item 3. Defaults upon Senior Securities

None.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information.

Not applicable.

Item 6. Exhibits.

<i>Exhibit No.</i>	<i>Description</i>
3.1	Certificate of Amendment to the Certificate of Incorporation of the Company, effective June 22, 2023 (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 001-390092), filed with the SEC on June 22, 2023).
	Form of Stock Option Agreement under the Shapeways Holdings, Inc. 2021 Equity Incentive Plan, as amended (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 001-39092), filed with the SEC on March 30, 2023).
31.1	Certification of the Chief Executive Officer required by Rule 13a-14(a) or Rule 15d-14(a).*
31.2	Certification of the Chief Financial Officer required by Rule 13a-14(a) or Rule 15d-14(a).*
32.1	Certification of the Chief Executive Officer required by Rule 13a-14(b) or Rule 15d-14(b) and 18 U.S.C. 1350.**
32.2	Certification of the Chief Financial Officer required by Rule 13a-14(b) or Rule 15d-14(b) and 18 U.S.C. 1350.**
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema
101.CAL	XBRL Taxonomy Extension Calculation Linkbase
101.DEF	XBRL Taxonomy Extension Definition Linkbase
101.LAB	XBRL Taxonomy Extension Label Linkbase
101.PRE	XBRL Taxonomy Extension Presentation Linkbase
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

* Filed herewith

** Furnished herewith

SIGNATURE

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.

Shapeways Holdings, Inc.

Dated: August 14, 2023

By: /s/ Alberto Recchi

Alberto Recchi

Chief Financial Officer

(Principal Financial and Accounting Officer)

CERTIFICATION OF THE CHIEF EXECUTIVE OFFICER
PURSUANT TO RULE 13a-14(a) AND 15d-14(a),
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Greg Kress, Chief Executive Officer of Shapeways Holdings, Inc., certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Shapeways Holdings, Inc. (the "Registrant");
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this Quarterly Report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations, and cash flows of the Registrant as of, and for, the periods presented in this Quarterly Report;
4. The Registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Registrant and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Registrant is made known to us by others within those entities, particularly during the period in which this Quarterly Report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. Evaluated the effectiveness of the Registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the Registrant's internal control over financial reporting that occurred during the Registrant's most recent fiscal quarter (the Registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the Registrant's internal control over financial reporting; and
5. The Registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Registrant's auditors and the audit committee of the Registrant's board of directors (or persons performing equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Registrant's ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the Registrant's internal control over financial reporting.

Shapeways Holdings, Inc.

Dated: August 14, 2023

By: /s/ Greg Kress
Greg Kress
Chief Executive Officer and Director
(Principal Executive Officer)

CERTIFICATION OF THE CHIEF FINANCIAL OFFICER
PURSUANT TO RULE 13a-14(a) AND 15d-14(a),
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Alberto Recchi, Chief Financial Officer of Shapeways Holdings, Inc., certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Shapeways Holdings, Inc. (the "Registrant");
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this Quarterly Report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations, and cash flows of the Registrant as of, and for, the periods presented in this Quarterly Report;
4. The Registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Registrant and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Registrant is made known to us by others within those entities, particularly during the period in which this Quarterly Report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. Evaluated the effectiveness of the Registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the Registrant's internal control over financial reporting that occurred during the Registrant's most recent fiscal quarter (the Registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the Registrant's internal control over financial reporting; and
5. The Registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Registrant's auditors and the audit committee of the Registrant's board of directors (or persons performing equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Registrant's ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the Registrant's internal control over financial reporting.

Shapeways Holdings, Inc.

Dated: August 14, 2023

By: /s/ Alberto Recchi

Alberto Recchi

Chief Financial Officer

(Principal Financial and Accounting Officer)

CERTIFICATION OF THE CHIEF EXECUTIVE OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the filing of the Quarterly Report on Form 10-Q for the period ended June 30, 2023 (the "Report") by Shapeways Holdings, Inc. (the "Registrant"), I, Greg Kress as Chief Executive Officer of the Registrant hereby certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to the best of my knowledge:

1. the Report fully complies with the requirements of Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934, as amended; and
2. the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Registrant.

Shapeways Holdings, Inc.

Dated: August 14, 2023

By: /s/ Greg Kress

Greg Kress

Chief Executive Officer and Director

(Principal Executive Officer)

CERTIFICATION OF THE CHIEF FINANCIAL OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the filing of the Quarterly Report on Form 10-Q for the period ended June 30, 2023 (the "Report") by Shapeways Holdings, Inc. (the "Registrant"), I, Alberto Recchi as Chief Financial Officer of the Registrant hereby certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to the best of my knowledge:

1. the Report fully complies with the requirements of Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934, as amended; and
2. the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Registrant.

Shapeways Holdings, Inc.

Dated: August 14, 2023

By: /s/ Alberto Recchi

Alberto Recchi

Chief Financial Officer

(Principal Financial and Accounting Officer)