UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-K/A

(Amendment No. 1)

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

For the fiscal year ended December 31, 2022

OR

o 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:

Т	itle of each class:	Trading Symbol(s)	Name of each exchange on which registered:	;
	, par value \$0.0001 per share	SHPW	The Nasdaq Stock Marke	et LLC
Warrants to	purchase Common Stock	SHPWW	The Nasdaq Stock Marke	et LLC
	Securities registered pursuant to Se	ction 12(g) of the Securities Exchange	Act of 1934: None	
Indicate by check mark if the reverse \square No \boxtimes	gistrant is a well-known seasoned issuer, as d	efined in Rule 405 of the Securities Ac	zt.	
Indicate by check mark if the re Yes □ No ⊠	gistrant is not required to file reports pursuant	to Section 13 or Section 15(d) of the A	Act.	
	the registrant: (1) has filed all reports require od that the registrant was required to file such			
	the registrant has submitted electronically eving the preceding 12 months (or for such short			ılation S-T
2	the registrant is a large accelerated filer, an a "large accelerated filer," "accelerated filer,"		, 1 5 1 3,	
Large accelerated filer	o		Accelerated filer	o
Non-accelerated filer	x		Smaller reporting company	x
			Emerging growth company	х
	t, indicate by check mark if the registrant has oursuant to Section 13(a) of the Exchange Act		on period for complying with any new or	revised financial
	the registrant has filed a report on and attesta of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)			
Indicate by check mark whether	the registrant is a shell company (as defined	in Rule 12b2 of the Exchange Act). Ye	es □ No⊠	
fiscal quarter, was approximatel	roting stock held by non-affiliates of the regis y \$48.0 million (based on the last reported sa has no non-voting stock outstanding.			
As of July 31, 2023 the registrar	nt had 6,441,427 shares of common stock outs	tanding.		
Documents Incorporated by R	teference			
None.				

EXPLANATORY NOTE

This Amendment No. 1 to Form 10-K (this "Amendment") amends the Annual Report on Form 10-K for Shapeways Holdings, Inc. for the year ended December 31, 2022, originally filed on March 30, 2023 (the "Original Report"). We are filing this Amendment to amend the audit report of WithumSmith+Brown, PC to correct typographical errors relating to the date of the report and the tenure of WithumSmith+Brown, PC as our auditor and to amend the disclosure in Part II, Item 7 (specifically, the section therein titled "Critical Accounting Estimates") and in Note 5, Revenue Recognition, to clarify the Company's revenue recognition practices for its marketplace sales. The remainder of Part II, Item 7 remains the same as previously reported in the Original Report, and there are no other changes to the Company's financial statements or disclosures and there are no changes to the Company's reported results. In addition, we are filing the consent of WithumSmith+Brown, PC as Exhibit 23.1 and new certifications by our Chief Executive Officer and Chief Financial Officer as Exhibits 31.1, 31.2, 32.1 and 32.2. This Amendment does not reflect any subsequent events occurring after the filing date of the Original Report and does not modify or update in any way the disclosures made in the Original Report except as described above.

Table of Contents

Page
5
14
15
17
-

PART II

Item 7. 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 describes the principal factors affecting the results of our operations, financial condition, and changes in financial condition for the year ended December 31, 2022. This discussion should be read in conjunction with the accompanying consolidated financial statements, and the notes thereto set forth in Part I, Item 8 of this Report. 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, includes 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 the results described in or implied by these forward-looking statements.

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

ATM Program

On October 6, 2022, we entered into an At The Market Offering Agreement (the "Sales Agreement"), with Craig-Hallum Capital Group LLC ("Craig-Hallum"), pursuant to which, from time to time, we may raise up to \$13.25 million by selling shares of our common stock, par value \$0.0001 per share (the "ATM Shares"). The ATM Shares will be issued pursuant to our shelf registration statement on Form S-3 (File No. 333-267763), filed with the SEC on October 6, 2022 and declared effective on October 18, 2022 (the "Shelf Registration Statement").

Subject to the terms and conditions of the Sales Agreement, Craig-Hallum will use commercially reasonable efforts consistent with its normal trading and sales practices to sell the ATM Shares from time to time, based upon our instructions, and is entitled to a commission at a rate equal to 3.0% of the gross price of any ATM Shares sold through Craig-Hallum (the "ATM Facility"). The offering of ATM Shares will terminate upon the earlier of (i) the sale of all common stock subject to the Sales Agreement or (ii) termination of the Sales Agreement in accordance with its terms. We are not required to sell any shares at any time during the term of the Sales Agreement. Net proceeds from the sale of ATM Shares, if any, will be used for general corporate purposes. To date, we have not conducted any sales under the ATM Facility.

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 New Offerings

We plan to continue to launch new manufacturing technologies, materials, and finishes. Prior to commercialization, we must complete testing and manufacturing rampup 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.

Table of Contents

We launched the first phase of our software offering under the brand OTTO in the fourth quarter of 2021, to third-party manufacturers. This phase of the rollout involves activities such as creating awareness of the new offering and ensuring the software can interoperate with systems used by potential customers. We plan to roll out further phases of this software over the next several years. Additionally, in April 2022 we acquired MFG.com ("MFG") and MakerOS, Inc. ("MakerOS"), which we believe will help further our software strategy and is expected to help accelerate OTTO's phased rollout. We believe that offering our OTTO software to other manufacturers will enable us to generate future revenue. However, we have not derived significant revenue from sales of our software to date and may never be successful in doing so. 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.

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 cyclicality and may cause our revenue and operating results to vary significantly in future periods.

Raw Materials, 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 COVID-19 pandemic, the Russian invasion of Ukraine, geopolitical tensions between the United States and China, and other supply and labor disruptions along with continuing 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 years ended December 31, 2022 and 2021, approximately 77% and 76% of our revenue was designated as Direct Sales, respectively. This revenue is recognized upon shipment of the manufactured product to the customer. Additionally, Direct Sales for the year ended December 31, 2022 reflects the revenue from the acquisition of Linear AMS ("Linear") in May 2022.

During the years ended December 31, 2022 and 2021, approximately 18% and 23% 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. Additionally, software revenue for the year ended December 31, 2022 reflects the revenue from the April 2022 acquisition of MFG.

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. We expect cost of revenue to increase on an absolute-dollar basis in the future.

We intend to further commercialize our software offering and if we generate material revenue from sales of our software offering, we will separately recognize the related cost of revenue.

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.

We expect our sales and marketing costs will increase on an absolute-dollar basis as we expand our headcount, initiate new marketing campaigns, and continue to roll out future phases of our software offering.

We expect our general and administrative expenses will continue to increase on an absolute-dollar basis in the near term as a result of operating as a public company, including expenses necessary to comply with the rules and regulations applicable to companies listed on a national securities exchange and related to compliance and reporting obligations pursuant to the rules and regulations of the SEC, as well as expenses for insurance, investor relations, and other administrative and professional services. In addition, we expect to incur additional costs as we hire additional personnel and enhance our infrastructure to support the anticipated growth of the business.

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. We expect research and development costs will increase on an absolute dollar basis over time as we continue to invest in our software offering.

Change in Fair Value of Earnout Liability

Change in fair value of earnout liability is a non-cash gain or loss impacted by the fair value of the earnout liability related to the Linear acquisition.

Change in Fair Value of Warrant Liabilities

Change in fair value of warrant liability 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 consolidated financial statements included elsewhere in this Report). 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. See Note 12 to our consolidated financial statements included elsewhere in this Report.

Interest Expense

Interest expense consists primarily of interest expense associated with our term loan and our bridge loan. At the Closing of the Business Combination, we repaid and terminated the term loan in full. Immediately prior to the completion of the Business Combination, the bridge loan was converted into shares of common stock of Legacy Shapeways. We had no interest-bearing debt outstanding as of December 31, 2022 and 2021.

Interest Income

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

Other Income

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

Income Tax Benefit (Expense)

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.

Results of Operations

Comparison of the Year Ended December 31, 2022 and 2021

Revenue

	Year Ended December 31,				Change		
(Dollars in thousands)		2022	2021	\$	\$	%	
Revenue	\$	33,157	\$ 33,623	\$	(466)	(1)%

Revenue for the years ended December 31, 2022 and 2021 was \$33.2 million and \$33.6 million, respectively, representing a decrease of \$0.5 million, or 1% from the prior year period. Excluding the revenue from our acquisitions in 2022, revenue decreased 15%. The 15% decrease was primarily attributable to a 19% decrease in customer count, partially offset by a 4% increase in average revenue per customer.

Cost of Revenue

	Year Ended December 31,			Change		
(Dollars in thousands)	2022	2	2021	\$		%
Cost of Revenue	\$	18,859 \$	17,673	\$	1,186	7 %

Cost of revenue for the years ended December 31, 2022 and 2021 was \$18.9 million and \$17.7 million, respectively, representing an increase of \$1.2 million, or 7%. The increase in cost of revenue was primarily due to higher expenses related to investment in new technologies, a more varied product mix, including additional product offerings as a result of acquisitions, and increases in costs of materials, energy and outsourced vendors due to inflationary impacts.

Gross Profit and Gross Margin

	Year Ended I	December 31,	Ch	ange
(Dollars in thousands)	 2022	2021	\$	%
Gross Profit	\$ 14,298	\$ 15,950	\$ (1.652)	(10)%

Gross profit for the years ended December 31, 2022 and 2021 was \$14.3 million, and \$16.0 million, respectively, representing a decrease of \$1.7 million or 10%. The decrease in gross profit was driven by a decrease in revenue and an increase in cost of revenue due to a more varied product mix and inflationary impacts.

	Year Ended Dec	ember 31,	Cha	inge
	2022	2021	Points	%
Gross Margin	43 %	47 %	(4)	(9)%

Selling, General and Administrative

SG&A expenses for the years ended December 31, 2022 and 2021 were \$27.8 million and \$17.7 million, respectively, representing an increase of \$10.1 million, or 57%. 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, MFG and MakerOS (the "2022 acquisitions"), audit and other spending related to becoming a public company 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 years ended December 31, 2022 and 2021 were \$10.4 million and \$6.3 million, respectively, representing an increase of \$4.1 million, or 65%. The increase in research and development expenses was primarily due to an increase in personnel cost.

Change in Fair Value of Earnout Liability

The change in fair value of the earnout liability resulted in a gain of \$1.8 million for the year ended December 31, 2022. The gain related to the decrease in fair value of the estimated earnout liability related to the Linear acquisition. There was no earnout liability for the year ended December 31, 2021 due to the timing of the Linear acquisition.

Change in Fair Value of Warrant Liabilities

The change in fair value of the warrant liabilities resulted in a gain of \$1.6 million and \$8.1 million for the years ended December 31, 2022 and 2021, respectively. The gain related to the decrease in fair value of the Private Warrants and Sponsor Warrants (as defined in Note 1 to our consolidated financial statements included elsewhere in this Report) assumed pursuant to the Merger.

Interest Expense

Interest expense for the year ended December 31, 2022 was an insignificant amount, as we had no debt outstanding during 2022. Interest expense for the year ended December 31, 2021 was \$0.4 million.

Interest Income

Interest income for the year ended December 31, 2022 was \$0.1 million. Interest income for the year ended December 31, 2021 was an insignificant amount.

Other Income

Other income for the year ended December 31, 2022 was \$0.3 million related to rental income associated with our sublease of our facility in Michigan. Other income for the year ended December 31, 2021 was an insignificant amount.

Income Taxes

We recorded an insignificant amount of income tax expense (benefit) for the year ended December 31, 2022. Income tax benefit was \$0.1 million for the year ended December 31, 2021 related to resolution of a tax assessment charge for 2019 in respect to our Dutch subsidiary, resulting in a refund.

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) income excluding debt forgiveness, interest expense, net of interest income, income tax benefit (expense), depreciation and amortization, stock-based compensation, change in fair value of earnout liability, change in fair value of warrant liabilities, acquisition costs, restructuring costs and other (which includes other income and non-operating gains and losses).

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) income to Adjusted EBITDA below and not rely on any single financial measure to evaluate our business.

The following table reconciles net (loss) income to Adjusted EBITDA for the years ended December 31, 2022 and 2021:

		Year Ended Dece			
(Dollars in thousands)		2022		2021	
Net (loss) income	\$	(20,221)	\$	1,756	
Debt forgiveness		_		(2,000)	
Interest expense, net		(142)		403	
Depreciation and amortization		1,514		593	
Stock based compensation		2,155		2,907	
Change in fair value of earnout liability		(1,824)		_	
Change in fair value of warrant liabilities		(1,584)		(8,106)	
Income tax expense (benefit)		31		(71)	
Acquisition costs		373		_	
Restructuring costs		198		_	
Other		(254)		15	
Adjusted EBITDA	\$	(19,754)	\$	(4,503)	

Liquidity and Capital Resources

We have incurred losses from operations in each of our annual reporting periods since our inception. As of December 31, 2022, we had \$30.6 million in cash and cash equivalents, \$0.1 million in restricted cash and \$9.8 million in marketable securities. We believe that our current cash and cash equivalents will be sufficient to meet our working capital needs for the twelve months following the issuance date of our consolidated financial statements included within this Report.

On October 6, 2022, we filed a shelf registration statement which permits us to offer up to \$50 million in the aggregate of (1) shares of our common stock, (2) shares of our preferred stock, which we may issue in one or more series, (3) debt securities, which may be senior debt securities or subordinated debt securities, (4) warrants, (5) rights, or (6) units, 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 the ATM Facility, subject to certain limitations. To date, we have not conducted any sales under the ATM Facility.

In September 2021, we consummated the Business Combination which provided a total of approximately \$86.8 million in net proceeds after transaction costs.

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 December 31, 2022, we paid \$16.3 million to Desktop Metal for equipment, materials and services received and placed purchase orders for another \$3.7 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. If events or circumstances occur such that we do not meet our operating plan as expected, we will be required to reduce corporate overhead or other operating expenses, which could have an adverse impact on our ability to achieve intended business objectives or obtain additional financing. We believe that we have the ability to enact cost savings measures to preserve capital if necessary. There can be no assurance that we will be successful in implementing our business objectives, however, we believe that external sources of funding will be available in such circumstances.

Cash Flow Summary

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

	Year Ended De	cember 31,
(Dollars in thousands)	2022	2021
Net cash used in operating activities	\$ (20,575) \$	(8,059)
Net cash used in investing activities	(28,759)	(3,960)
Net cash provided by financing activities	 339	83,267
Net change in cash and cash equivalents and restricted cash	\$ (48,995) \$	71,248

Operating Activities

Net cash used in operating activities was \$20.6 million for the year ended December 31, 2022, primarily consisting of net loss of \$20.2 million adjusted for non-cash items including a gain on change in fair value of earnout liability of \$1.8 million and gain on change in fair value of warrant liability of \$1.6 million, interest receivable of \$0.1 million, stock-based compensation expense of \$2.2 million, depreciation and amortization expense of \$1.5 million and lease expense of \$1.0 million. The net change in working capital resulted in a cash outflow of \$1.6 million.

Net cash used in operating activities was \$8.1 million during the year ended December 31, 2021, primarily due to net income of \$1.8 million adjusted for non-cash items including a gain on the change in fair value of warrant liabilities of \$8.1 million, debt forgiveness of \$2.0 million related to our PPP loan, stock-based compensation expense of \$2.9 million, lease expense of \$0.8 million and depreciation and amortization expense of \$0.6 million. The net change in working capital resulted in an a cash outflow of \$4.0 million.

Investing Activities

During the year ended December 31, 2022, net cash used in investing activities was \$28.8 million, which consisted of \$10.1 million for purchases of property and equipment, purchase of marketable securities of \$9.8 million, and \$8.9 million related to net cash paid for the 2022 acquisitions.

During the year ended December 31, 2021 net cash used in investing activities was \$4.0 million for purchases of property and equipment.

Financing Activities

During the year ended December 31, 2022, net cash provided by financing activities was \$0.3 million resulting from proceeds from exercises of employee stock options.

During the year ended December 31, 2021, net cash provided by financing activities was \$83.3 million resulting primarily from the effect of the Business Combination, (net of transaction costs) of \$86.8 million, \$0.6 million from proceeds from exercises of employee stock options and \$0.1 million from proceeds from exercise of preferred stock warrants, partially offset by repayments of loans payable of \$3.6 million and \$0.6 million of tax payments related to shares withheld for vested restricted stock units.

Contractual Obligations and Commitments

See Note 11, Commitments and Contingencies, of the notes to the consolidated financial statements for the years ended December 31, 2022 and 2021 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 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 consolidated financial statements will be affected.

Revenue Recognition

We recognize revenue from sale of products (both direct sales and marketplace sales) upon transfer of control, which is generally at the point of shipment.

Our software contracts with customers often include promises to transfer multiple software elements to the customer. Revenue from sale of software may be recognized over the life of the associated software contract or as services are performed, depending on the nature of the services being provided. Judgment is required to determine the separate performance obligations present in a given contract, which we have concluded are generally capable of being distinct and accounted for as separate performance obligations. We use standalone selling price ("SSP") to allocate revenue to each performance obligation. Significant judgment is required to determine the SSP for each distinct performance obligation in a contract.

We provide 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, manufacture, distribution and customer service. 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 considered whether we have 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.

Table of Contents

Goodwill Impairment

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, we have 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 we determine 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 our financial condition and results of operations.

Recent Accounting Pronouncements

Refer to Note 2 of the consolidated financial statements included elsewhere in this Report.

Item 8. Financial Statements and Supplementary Data

This information is incorporated by reference beginning on page F-1 of this Report.

Part IV

Item 15. Exhibits and Financial Statement Schedules.

- a. The following documents are filed as part of this Report:
 - i. Financial Statements (see pages F-1 through F-29 of this Report):
 - 1. Report of Independent Registered Public Accounting Firm
 - 2. Consolidated Balance Sheets
 - 3. Consolidated Statements of Operations and Comprehensive Loss
 - 4. Consolidated Statements of Preferred and Common Stock and Stockholder's Equity (Deficit)
 - 5. Consolidated Statements of Cash Flows
 - 6. Notes to Consolidated Financial Statements
 - ii. Financial Statement Schedules:
 - 1. All financial statement schedules are omitted because the information is inapplicable or presented in the notes to the financial statements.
- b. The exhibits listed in the exhibit index of the Original Report and of this Amendment are filed with, or incorporated by reference in, this Amendment. The following additional exhibits are filed with this Amendment:

INDEX TO EXHIBITS

Exhibit No.	Description
23.1*	Consent of Withum Smith+Brown*
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	Inline XBRL Instance Document
101.SCH	Inline XBRL Taxonomy Extension Schema
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)
*	Filed herewith.
**	Furnished herewith.

SIGNATURES

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

Shapeways Holdings, Inc.

Dated: August 4, 2023

By: /s/ Alberto Recchi
Alberto Recchi
Chief Financial Officer
(Principal Financial and Accounting Officer)

KNOW ALL PERSONS BY THESE PRESENTS that each person whose signature appears below constitutes and appoints Greg Kress and Alberto Recchi and each of them, his or her true and lawful attorneys-in-fact and agents, each with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments to this report, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that each of said attorneys-in-fact and agents or their substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, this Report has been signed below by the following persons on behalf of the registrant in the capacities and on the dates indicated.

Name	Title	Date
/s/ Greg Kress	Chief Executive Officer and Director	August 4, 2023
Greg Kress	(Principal Executive Officer)	
/s/ Alberto Recchi	Chief Financial Officer and Director	August 4, 2023
Alberto Recchi	(Principal Financial and Accounting Officer)	
/s/ Leslie Campbell	Chairman of the Board	August 4, 2023
Leslie Campbell		
/s/ Rajeev Batra	Director	August 4, 2023
Rajeev Batra		
/s/ Christine Gorjanc	Director	August 4, 2023
Christine Gorjanc		
/s/ Ryan Kearny	Director	August 4, 2023
Ryan Kearny		
/s/ Josh Wolfe	Director	August 4, 2023
Josh Wolfe		

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

	Page
Report of Independent Registered Public Accounting Firm	F-2
Consolidated Balance Sheets as of December 31, 2022 and 2021	F-3
Consolidated Statements of Operations and Comprehensive Loss for the Years Ended December 31, 2022 and 2021	F-4
Consolidated Statements of Changes in Stockholders' Equity (Deficit) for the Years Ended December 31, 2022 and 2021	F-5
Consolidated Statements of Cash Flows for the Years Ended December 31, 2022 and 2021	F-6
Notes to the Consolidated Financial Statements	F-7

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and Board of Directors of Shapeways Holdings, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Shapeways Holdings, Inc. and Subsidiaries (the "Company") as of December 31, 2022 and 2021, and the related consolidated statements of operations and comprehensive loss, changes in stockholders' equity (deficit), and cash flows for each of the two years in the period ended December 31, 2022, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2022, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ WithumSmith+Brown, PC

We have served as the Company's auditor since 2021.

East Brunswick, New Jersey

March 30, 2023

PCAOB ID - 100

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

Assets Current assets Cash and cash equivalents Restricted cash Short-term investments Accounts receivable Inventory Prepaid expenses and other current assets	\$ 30,630 139 9,816 1,606 1,307 6,255	\$	2021 79,677 142
Current assets Cash and cash equivalents Restricted cash Short-term investments Accounts receivable Inventory	139 9,816 1,606 1,307	\$	
Cash and cash equivalents Restricted cash Short-term investments Accounts receivable Inventory	139 9,816 1,606 1,307	\$	
Restricted cash Short-term investments Accounts receivable Inventory	139 9,816 1,606 1,307	\$	
Short-term investments Accounts receivable Inventory	9,816 1,606 1,307		142
Accounts receivable Inventory	1,606 1,307		
Inventory	1,307		_
•	·		1,372
Prepaid expenses and other current assets	6,255		927
Trepara emperiore and outer editoric above			4,360
Total current assets	49,753		86,478
Property and equipment, net	15,627		4,388
Right-of-use assets, net	2,365		842
Goodwill	6,286		1,835
Intangible assets, net	5,398		_
Security deposits	99		175
Total assets	79,528	\$	93,718
Liabilities and stockholders' equity			
Current liabilities			
Accounts payable \$	\$ 2,354	\$	1,909
Accrued expenses and other liabilities	5,950		2,645
Operating lease liabilities, current	719		639
Deferred revenue	972		921
Total current liabilities	9,995		6,114
Operating lease liabilities, net of current portion	1,715		326
Deferred tax liabilities, net	27		_
Warrant liabilities	_		2,274
Total liabilities	11,737		8,714
Commitments and contingencies	,,,,	-	-,-
Stockholders' equity			
Preferred stock (\$0.0001 par value; 10,000,000 shares authorized; none issued and outstanding as of December 31, 2022 and 2021, respectively)	_		_
Common stock (\$0.0001 par value; 120,000,000 shares authorized; 49,445,174 and 48,627,739 shares issued and outstanding as of December 31, 2022 and 2021, respectively)	5		5
Additional paid-in capital	201,362		198,179
Accumulated deficit	(133,032)		(112,811)
Accumulated other comprehensive loss	(544)		(369)
Total stockholders' equity	67,791		85,004
Total liabilities and stockholders' equity	· · · · · · · · · · · · · · · · · · ·	\$	93,718

SHAPEWAYS HOLDINGS, INC. CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS

(in thousands, except share and per share amounts)

	Year Endo	ed December 31,
	2022	2021
Revenue, net	\$ 33,15	\$ 33,623
Cost of revenue	18,859	17,673
Gross profit	14,29	15,950
Operating expenses		
Selling, general and administrative	27,84	7 17,694
Research and development	10,40	6,281
Total operating expenses	38,250	5 23,975
Loss from operations	(23,958	(8,025)
Other income (expense)		
Long-term debt forgiveness	_	- 2,000
Interest expense	(*)	7) (404)
Change in fair value of earnout liabilities	1,82	4 —
Change in fair value of warrant liabilities	1,58-	4 8,106
Interest income	14) 1
Other income	26	7
Loss on disposal of assets	(49	<u> </u>
Total other income (expense), net	3,76	9,710
(Loss) income before income tax expense (benefit)	(20,190	1,685
Income tax expense (benefit)	3	1 (71)
Net (loss) income	(20,22)	1,756
Deemed dividend - Earnout Shares		(18,132)
Net loss attributable to common stockholders	(20,22)	(16,376)
Net (loss) income per share:		
Basic	\$ (0.38)	8) \$ 0.04
Diluted	\$ (0.38	\$ 0.04
Net loss per share attributable to common stockholders:	<u></u>	
Basic	\$ (0.38)	3) \$ (0.40)
Diluted	\$ (0.38	
Weighted average common shares outstanding:(1)	*************************************	(0.10)
Basic	52,998,56	3 41,040,637
Diluted	52,998,563	
Other comprehensive loss	32,770,30.	7 41,040,037
Foreign currency translation adjustment	(175	5) (92)
Comprehensive loss	\$ (20,390	/
Complementative loss	ψ (20,390	<u>π</u> (10,408)

 $^{^{(1)}}$ Retroactively restated the common shares for 2021 due to the reverse recapitalization as described in Note 12.

SHAPEWAYS HOLDINGS, INC. CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (DEFICIT) (in thousands, except share and per share amounts)

_	Common St	ock				Accumulated Other	т	otal Stockholders'
	Shares	Amount		Additional Paid-In Capital	Accumulated Deficit	Comprehensive Loss		Equity (Deficit)
Balance at January 1, 2021	32,184,263	\$	3	\$ 112,994	\$ (114,567)	\$ (277)	\$	(1,847)
Issuance of Legacy Shapeways common stock upon exercise of stock options	1,212,430	-		552	_	_		552
Issuance of Legacy Shapeways convertible Series B-1 preferred stock resulting from exercise of warrants	19,177	-		60	_	_		60
Issuance of Legacy Shapeways common stock upon conversion of convertible notes	1,406,741	-		5,913	_	_		5,913
Issuance of Legacy Shapeways common stock upon exercise of warrants	212,234	-	_	_	_	_		_
Issuance of Legacy Shapeways convertible Series D preferred stock upon exercise of warrants	89,217	-		_	_	_		_
Repurchase of Legacy Shapeways common stock	(19,226)	-	_	(152)	_	_		(152)
Effect of Merger and recapitalization, net of redemptions and issuance costs	5,691,648		1	10,035	_	_		10,036
Issuance of common stock pursuant to PIPE financing, net of issuance costs	7,500,000		1	64,936	_	_		64,937
Issuance of common stock resulting from exercise of stock options	86,533	-	_	43	_	_		43
Issuance of common stock for settlement of restricted stock units	410,000	-	_	1,558	_	_		1,558
Tax payments related to shares withheld for vested restricted stock units	(165,278)	-	_	(594)	_	_		(594)
Stock-based compensation expense	_	-	_	1,349	_	_		1,349
Transfer of Private Warrants to Public Warrants	_	-	_	1,485	_	_		1,485
Net income	_			_	1,756	_		1,756
Foreign currency translation						(92)		(92)
Balance at December 31, 2021	48,627,739		5	198,179	(112,811)	(369)		85,004
Issuance of common stock for stock-based compensation	819,166	-	_	339	_	_		339
Cancellation of restricted stock	(1,731)	-	_	_	_	_		_
Stock-based compensation expense	_	-	_	2,155	_	_		2,155
Transfer of Private Warrants to Public Warrants	_	-	_	689	_	_		689
Net loss	_	-	_	_	(20,221)	_		(20,221)
Foreign currency translation	_					(175)		(175)
Balance at December 31, 2022	49,445,174	\$	5	\$ 201,362	\$ (133,032)	\$ (544)	\$	67,791

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

Cash flows from operating activities: Net (loss) income Adjustments to reconcile net (loss) income to net cash used in operating activities: Depreciation and amortization Loss on disposal of property and equipment Stock-based compensation expense Non-cash lease expense Non-cash debt forgiveness Deferred income taxes Change in fair value of earnout liability Change in fair value of warrant liabilities Interest receivable on short-term investments Change in operating assets and liabilities: Accounts receivable Inventory Prepaid expenses and other assets Accounts payable Accrued expenses and other liabilities Operating lease liabilities Deferred revenue Security deposits Net cash used in operating activities Cash flows from investing activities: Purchase of short-term investments Net cash paid for acquisitions, net of cash acquired Net cash used in investing activities Cash flows from financing activities Cash flows from financing activities Proceeds from issuance of common stock Proceeds from issuance of common stock Proceeds from issuance of common stock Proceeds from issuance of preferred stock warrants Tax payments related to shares withheld for vested restricted stock units	2022 (20,221) 1,514 49 2,155 1,000 — 27 (1,824) (1,584) (105) 873 (192) (1,686) 1 996 (1,049)	\$ 1,756 593 — 2,907 763 (2,000) — (8,106) — (1,180)
Net (loss) income Adjustments to reconcile net (loss) income to net cash used in operating activities: Depreciation and amortization Loss on disposal of property and equipment Stock-based compensation expense Non-cash lease expense Non-cash lease expense Non-cash lease expense Change in fair value of earnout liability Change in fair value of warrant liabilities Interest receivable on short-term investments Change in operating assets and liabilities: Accounts receivable Inventory Prepaid expenses and other assets Accounts payable Accrued expenses and other liabilities Operating lease liabilities Deferred revenue Security deposits Net cash used in operating activities: Purchases of property and equipment Purchase of short-term investments Net cash paid for acquisitions, net of cash acquired Net cash used in investing activities: Proceeds from issuance of common stock Proceeds from issuance of common stock Proceeds received from exercise of preferred stock warrants	1,514 49 2,155 1,000 — 27 (1,824) (1,584) (105) 873 (192) (1,686) 1	\$ 5933 — 2,907 763 (2,000) — (8,106)
Adjustments to reconcile net (loss) income to net cash used in operating activities: Depreciation and amortization Loss on disposal of property and equipment Stock-based compensation expense Non-cash lease expense Non-cash debt forgiveness Deferred income taxes Change in fair value of earnout liability Change in fair value of warrant liabilities Interest receivable on short-term investments Change in operating assets and liabilities: Accounts receivable Inventory Prepaid expenses and other assets Accounts payable Accrued expenses and other liabilities Operating lease liabilities Deferred revenue Security deposits Net cash used in operating activities: Purchases of property and equipment Purchase of short-term investments Net cash paid for acquisitions, net of cash acquired Net cash used in investing activities: Proceeds from issuance of common stock Proceeds from issuance of common stock Proceeds received from exercise of preferred stock warrants	1,514 49 2,155 1,000 — 27 (1,824) (1,584) (105) 873 (192) (1,686) 1	\$ 5933 — 2,907 763 (2,000) — (8,106)
Depreciation and amortization Loss on disposal of property and equipment Stock-based compensation expense Non-cash lease expense Non-cash debt forgiveness Deferred income taxes Change in fair value of carnout liability Change in fair value of warrant liabilities Interest receivable on short-term investments Change in operating assets and liabilities: Accounts receivable Inventory Prepaid expenses and other assets Accounts payable Accrued expenses and other liabilities Operating lease liabilities Operating lease liabilities Deferred revenue Security deposits Net cash used in operating activities Purchases of property and equipment Purchase of short-term investments Net cash paid for acquisitions, net of cash acquired Net cash used in investing activities: Proceeds from investing activities: Proceeds from isuance of common stock Proceeds received from exercise of preferred stock warrants	49 2,155 1,000 — 27 (1,824) (1,584) (105) 873 (192) (1,686) 1 996	2,907 763 (2,000) — (8,106)
Loss on disposal of property and equipment Stock-based compensation expense Non-cash lease expense Non-cash debt forgiveness Deferred income taxes Change in fair value of earnout liability Change in fair value of warrant liabilities Interest receivable on short-term investments Change in operating assets and liabilities: Accounts receivable Inventory Prepaid expenses and other assets Accounts payable Accrued expenses and other liabilities Operating lease liabilities Operating lease liabilities Deferred revenue Security deposits Net cash used in operating activities Purchases of property and equipment Purchase of short-term investments Net cash paid for acquisitions, net of cash acquired Net cash used in investing activities: Proceeds from investing activities: Proceeds from issuance of common stock Proceeds received from exercise of preferred stock warrants	49 2,155 1,000 — 27 (1,824) (1,584) (105) 873 (192) (1,686) 1 996	2,907 763 (2,000) — (8,106)
Stock-based compensation expense Non-cash lease expense Non-cash debt forgiveness Deferred income taxes Change in fair value of earnout liability Change in fair value of warrant liabilities Interest receivable on short-term investments Change in operating assets and liabilities: Accounts receivable Inventory Prepaid expenses and other assets Accounts payable Accrued expenses and other liabilities Operating lease liabilities Operating lease liabilities Deferred revenue Security deposits Net cash used in operating activities Cash flows from investing activities: Purchase of short-term investments Net cash paid for acquisitions, net of cash acquired Net cash used in investing activities Cash flows from financing activities Proceeds from insuance of common stock Proceeds received from exercise of preferred stock warrants	2,155 1,000 — 27 (1,824) (1,584) (105) 873 (192) (1,686) 1 996	763 (2,000) ——————————————————————————————————
Non-cash lease expense Non-cash debt forgiveness Deferred income taxes Change in fair value of earnout liability Change in fair value of warrant liabilities Interest receivable on short-term investments Change in operating assets and liabilities: Accounts receivable Inventory Prepaid expenses and other assets Accounts payable Accrued expenses and other liabilities Operating lease liabilities Operating lease liabilities Deferred revenue Security deposits Net cash used in operating activities Cash flows from investing activities: Purchase of short-term investments Net cash paid for acquisitions, net of cash acquired Net cash used in investing activities Cash flows from financing activities Cash flows from financing activities Proceeds from issuance of common stock Proceeds received from exercise of preferred stock warrants	1,000 — 27 (1,824) (1,584) (105) 873 (192) (1,686) 1 996	763 (2,000) ——————————————————————————————————
Non-cash debt forgiveness Deferred income taxes Change in fair value of earnout liability Change in fair value of warrant liabilities Interest receivable on short-term investments Change in operating assets and liabilities: Accounts receivable Inventory Prepaid expenses and other assets Accounts payable Accrued expenses and other liabilities Operating lease liabilities Deferred revenue Security deposits Net cash used in operating activities Cash flows from investing activities: Purchases of short-term investments Net cash paid for acquisitions, net of cash acquired Net cash used in investing activities Cash flows from financing activities Proceeds from investing activities Proceeds from insuance of common stock Proceeds received from exercise of preferred stock warrants	27 (1,824) (1,584) (105) 873 (192) (1,686) 1 996	(2,000)
Deferred income taxes Change in fair value of earnout liability Change in fair value of warrant liabilities Interest receivable on short-term investments Change in operating assets and liabilities: Accounts receivable Inventory Prepaid expenses and other assets Accounts payable Accrued expenses and other liabilities Operating lease liabilities Operating lease liabilities Deferred revenue Security deposits Net cash used in operating activities Cash flows from investing activities: Purchases of property and equipment Purchase of short-term investments Net cash paid for acquisitions, net of cash acquired Net cash used in investing activities Cash flows from financing activities Cash flows from financing activities Proceeds from issuance of common stock Proceeds received from exercise of preferred stock warrants	(1,824) (1,584) (105) 873 (192) (1,686) 1	(8,106)
Change in fair value of earmout liability Change in fair value of warrant liabilities Interest receivable on short-term investments Change in operating assets and liabilities: Accounts receivable Inventory Prepaid expenses and other assets Accounts payable Accrued expenses and other liabilities Operating lease liabilities Operating lease liabilities Deferred revenue Security deposits Net cash used in operating activities Cash flows from investing activities: Purchase of short-term investments Net cash paid for acquisitions, net of cash acquired Net cash used in investing activities: Proceeds from insuance of common stock Proceeds received from exercise of preferred stock warrants	(1,824) (1,584) (105) 873 (192) (1,686) 1	` <u> </u>
Change in fair value of warrant liabilities Interest receivable on short-term investments Change in operating assets and liabilities: Accounts receivable Inventory Prepaid expenses and other assets Accounts payable Accrued expenses and other liabilities Operating lease liabilities Operating lease liabilities Deferred revenue Security deposits Net cash used in operating activities Cash flows from investing activities: Purchases of property and equipment Purchase of short-term investments Net cash paid for acquisitions, net of cash acquired Net cash used in investing activities: Proceeds from issuance of common stock Proceeds received from exercise of preferred stock warrants	(1,584) (105) 873 (192) (1,686) 1	
Interest receivable on short-term investments Change in operating assets and liabilities: Accounts receivable Inventory Prepaid expenses and other assets Accounts payable Accrued expenses and other liabilities Operating lease liabilities Operating lease liabilities Deferred revenue Security deposits Net cash used in operating activities Cash flows from investing activities: Purchases of property and equipment Purchase of short-term investments Net cash paid for acquisitions, net of cash acquired Net cash used in investing activities: Proceeds from issuance of common stock Proceeds received from exercise of preferred stock warrants	(105) 873 (192) (1,686) 1 996	` <u> </u>
Change in operating assets and liabilities: Accounts receivable Inventory Prepaid expenses and other assets Accounts payable Accrued expenses and other liabilities Operating lease liabilities Deferred revenue Security deposits Net cash used in operating activities Cash flows from investing activities: Purchases of property and equipment Purchase of short-term investments Net cash paid for acquisitions, net of cash acquired Net cash used in investing activities Cash flows from financing activities Cash flows from financing activities: Proceeds from issuance of common stock Proceeds received from exercise of preferred stock warrants	873 (192) (1,686) 1 996	(1,180)
Accounts receivable Inventory Prepaid expenses and other assets Accounts payable Accrued expenses and other liabilities Operating lease liabilities Deferred revenue Security deposits Net cash used in operating activities Cash flows from investing activities: Purchases of property and equipment Purchase of short-term investments Net cash paid for acquisitions, net of cash acquired Net cash used in investing activities Cash flows from financing activities Cash flows from financing activities Proceeds from issuance of common stock Proceeds received from exercise of preferred stock warrants	(192) (1,686) 1 996	(1,180)
Inventory Prepaid expenses and other assets Accounts payable Accrued expenses and other liabilities Operating lease liabilities Deferred revenue Security deposits Net cash used in operating activities Cash flows from investing activities: Purchases of property and equipment Purchase of short-term investments Net cash paid for acquisitions, net of cash acquired Net cash used in investing activities Cash flows from financing activities Proceeds from issuance of common stock Proceeds received from exercise of preferred stock warrants	(192) (1,686) 1 996	(1,180)
Prepaid expenses and other assets Accounts payable Accrued expenses and other liabilities Operating lease liabilities Deferred revenue Security deposits Net cash used in operating activities Cash flows from investing activities: Purchases of property and equipment Purchase of short-term investments Net cash paid for acquisitions, net of cash acquired Net cash used in investing activities: Cash flows from financing activities Proceeds from issuance of common stock Proceeds received from exercise of preferred stock warrants	(1,686) 1 996	
Accounts payable Accrued expenses and other liabilities Operating lease liabilities Deferred revenue Security deposits Net cash used in operating activities Cash flows from investing activities: Purchases of property and equipment Purchase of short-term investments Net cash paid for acquisitions, net of cash acquired Net cash used in investing activities: Cash flows from financing activities Proceeds from issuance of common stock Proceeds received from exercise of preferred stock warrants	1 996	(175)
Accrued expenses and other liabilities Operating lease liabilities Deferred revenue Security deposits Net cash used in operating activities Cash flows from investing activities: Purchases of property and equipment Purchase of short-term investments Net cash paid for acquisitions, net of cash acquired Net cash used in investing activities Cash flows from financing activities Proceeds from issuance of common stock Proceeds received from exercise of preferred stock warrants	996	(2,355)
Operating lease liabilities Deferred revenue Security deposits Net cash used in operating activities Cash flows from investing activities: Purchases of property and equipment Purchase of short-term investments Net cash paid for acquisitions, net of cash acquired Net cash used in investing activities Cash flows from financing activities Proceeds from issuance of common stock Proceeds received from exercise of preferred stock warrants		207
Deferred revenue Security deposits Net cash used in operating activities Cash flows from investing activities: Purchases of property and equipment Purchase of short-term investments Net cash paid for acquisitions, net of cash acquired Net cash used in investing activities Cash flows from financing activities Proceeds from issuance of common stock Proceeds received from exercise of preferred stock warrants	(1,049)	223
Security deposits Net cash used in operating activities Cash flows from investing activities: Purchases of property and equipment Purchase of short-term investments Net cash paid for acquisitions, net of cash acquired Net cash used in investing activities Cash flows from financing activities: Proceeds from issuance of common stock Proceeds received from exercise of preferred stock warrants		(854
Net cash used in operating activities Cash flows from investing activities: Purchases of property and equipment Purchase of short-term investments Net cash paid for acquisitions, net of cash acquired Net cash used in investing activities Cash flows from financing activities: Proceeds from issuance of common stock Proceeds received from exercise of preferred stock warrants	(522)	162
Cash flows from investing activities: Purchases of property and equipment Purchase of short-term investments Net cash paid for acquisitions, net of cash acquired Net cash used in investing activities Cash flows from financing activities: Proceeds from issuance of common stock Proceeds received from exercise of preferred stock warrants	(7)	_
Purchases of property and equipment Purchase of short-term investments Net cash paid for acquisitions, net of cash acquired Net cash used in investing activities Cash flows from financing activities: Proceeds from issuance of common stock Proceeds received from exercise of preferred stock warrants	(20,575)	(8,059)
Purchase of short-term investments Net cash paid for acquisitions, net of cash acquired Net cash used in investing activities Cash flows from financing activities: Proceeds from issuance of common stock Proceeds received from exercise of preferred stock warrants		
Net cash paid for acquisitions, net of cash acquired Net cash used in investing activities Cash flows from financing activities: Proceeds from issuance of common stock Proceeds received from exercise of preferred stock warrants	(10,118)	(3,960)
Net cash used in investing activities Cash flows from financing activities: Proceeds from issuance of common stock Proceeds received from exercise of preferred stock warrants	(9,780)	_
Cash flows from financing activities: Proceeds from issuance of common stock Proceeds received from exercise of preferred stock warrants	(8,861)	_
Proceeds from issuance of common stock Proceeds received from exercise of preferred stock warrants	(28,759)	(3,960)
Proceeds received from exercise of preferred stock warrants		
·	339	595
Tax payments related to shares withheld for vested restricted stock units	_	60
	_	(594)
Effect of Merger, net of transaction costs	_	86,792
Repayments of loans payable	_	(3,586)
Net cash provided by financing activities	339	83,267
Net change in cash and cash equivalents and restricted cash \$	(48,995)	\$ 71,248
Effect of change in foreign currency exchange rates on cash and cash equivalents and restricted cash	(55)	(138)
Cash and cash equivalents and restricted cash at beginning of year	79,819	8,709
Cash and cash equivalents and restricted cash at end of year \$	30,769	\$ 79,819
Supplemental disclosure of cash and non-cash transactions:		
Cash paid for interest \$	_	\$ 85
Purchase of property and equipment included in accounts payable \$	225	\$ _
Issuance of Legacy Shapeways common stock upon conversion of convertible notes \$		\$ 5,913
Repurchase of Legacy Shapeways common stock \$		\$ (152)

(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 Corp., Galileo Acquisition ("Merger Sub"), and Shapeways, 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 over24 million parts to over 1 million customers in over 180 countries, from inception through December 31, 2022.

Note 2. Summary of Significant Accounting Policies

Basis of Presentation and Principles of Consolidation

The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States ("U.S. GAAP") as defined by the Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC"). The 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 consolidated 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.

Use of Estimates

The preparation of the Company's 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 disclosure of contingent assets and liabilities at the date of the 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 (deficit). Gains and losses from foreign currency transactions are included in net loss for the period.

(in thousands, except share and per share amounts)

Cash, Cash Equivalents and Restricted Cash

Cash includes cash on hand, 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 institution. 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 consolidated balance sheets.

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

	December 31,			
		2022		2021
Cash and cash equivalents	\$	30,630	\$	79,677
Restricted cash		139		142
	\$	30,769	\$	79,819

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 and intends to hold all investments to maturity, and as such 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 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 December 31, 2022 and 2021.

Inventory

Inventory consists of raw materials, work in progress 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 progress 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 December 31, 2022 and 2021, the Company determined an allowance was not deemed necessary.

(in thousands, except share and per share amounts)

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 years ended December 31, 2022 and 2021. 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 statements of operations and comprehensive loss. No impairment charges were recorded for the years ended December 31, 2022 and 2021.

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

(in thousands, except share and per share amounts)

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 entity 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 consolidated financial statements from the acquisition date (see Note 4).

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

(in thousands, except share and per share amounts)

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 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 right-of-use ("ROU") assets and the corresponding lease liabilities are included in operating lease liabilities, current and operating lease liabilities on the Company's consolidated balance sheets. The Company does not currently maintain any finance lease arrangements. 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 are recognized based on the probability of the performance condition being met over the vesting period. Forfeitures are recognized as they are incurred.

Public and Private Common Stock Warrant Liabilities

As part of Galileo's initial public offering, Galileo issued to third party investors 13,800,000 units, consisting of one ordinary share of Galileo and one warrant, at a price of \$10.00 per unit. Each whole warrant entitles the holder to purchase one share of common stock at an exercise price of \$1.50 per share (the "Public Warrants"). Simultaneously with the closing of Galileo's initial public offering, Galileo completed the private sale of 4,110,000 warrants to Galileo's sponsor and EarlyBirdCapital, Inc. at a purchase price of \$1.00 per warrant (the "Private Warrants"). In connection with the Business Combination, Galileo's sponsor exercised its right to convert the aggregate outstanding principal amount of the

(in thousands, except share and per share amounts)

convertible promissory note issued by Galileo into an aggregate of 500,000 warrants (the "Sponsor Warrants"), with terms equivalent to the Private Warrants.

The Private Warrants were originally identical to the Public Warrants, except that the Private Warrants (i) will not be redeemable by the Company and (ii) may be exercised for cash or on a cashless basis, so long as they are held by the initial purchaser or any of its permitted transferees. If the Private Warrants are held by holders other than the initial purchasers or any of their permitted transferees, the Private Warrants will be redeemable by the Company and exercisable by the holders on the same basis as the Public Warrants.

The Company evaluated the Public and Private Warrants under ASC 815-40, *Derivatives and Hedging—Contracts in Entity's Own Equity* ("ASC 815-40"), and concluded that the Private Warrants do not meet the criteria to be classified in stockholders' equity. Since the Private Warrants meet the definition of a derivative under ASC 815, the Company recorded these warrants as liabilities on the consolidated balance sheets at fair value, with subsequent changes in their respective fair values recognized in the 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 thatthe 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. See Note 12.

Research and Development Costs

Research and development expenses consist primarily of employee-related personnel expenses, fees paid to consultants and outside service providers, software and subscription services and allocations for rent and overhead. Research and development costs were \$10,409 and \$6,281 for the years ended December 31, 2022 and 2021, respectively.

Advertising

Advertising costs are expensed as incurred. Advertising costs were \$2,046 and \$1,887 for the years ended December 31, 2022 and 2021, respectively, which are included in selling, general and administrative expense on the Company's 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.

(in thousands, except share and per share amounts)

(Loss) Income per Share

In accordance with the provisions of ASC 260, Earnings Per Share, net (loss) income per common share is computed by dividing net (loss) income by the weighted-average shares of common stock outstanding during the period. Basic (loss) income per share is computed by dividing net (loss) income attributable to common stockholders by the weighted average number of shares outstanding during the period. Diluted net (loss) income 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) income per share calculation since the effect would be anti-dilutive. A reconciliation of net (loss) income and net loss attributable to common stockholders and number of shares used in computing basic and diluted net (loss) income and net loss attributable to common stockholders per share is as follows:

	Year Ended December 31,			er 31,
		2022		2021
Basic and Diluted net (loss) income per share computation:				
Numerator for basic and diluted net loss per share:				
Net (loss) income	\$	(20,221)	\$	1,756
Net loss attributable to common stockholders	\$	(20,221)	\$	(16,376)
Denominator for basic and diluted net loss per share:				
Weighted average common shares - basic and diluted		52,998,563		41,040,637
Basic and diluted net (loss) income per share	\$	(0.38)	\$	0.04
Basic and diluted net loss per share attributable to common stockholders	\$	(0.38)	\$	(0.40)

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

	Year Ended Dece	mber 31,
	2022	2021
Potentially dilutive securities:		
Common stock warrants	18,410,000	18,410,000
Earnout Shares	3,510,405	3,510,405
Unvested RSUs	7,225,194	660,448

Included in loss per common share are 3,885,059 and 4,515,739 shares of options due to their nominal exercise prices as of December 31, 2022 and 2021, respectively.

Segment Information

The Company reports in one segment, which focuses on providing additive manufacturing services to customers. The Company's reportable 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.

Recent Accounting Pronouncements

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 consolidated financial statements or related financial statement disclosures.

(in thousands, except share and per share amounts)

Accounting Pronouncements Recently Adopted

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.

Accounting Pronouncements Not Yet Adopted

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. Early adoption is permitted, including adoption in an interim period. The Company is currently evaluating the impact the standard will have on its consolidated financial statements.

Note 3. Short-term Investments

As of December 31, 2022, the Company's investment in 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 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 December 31, 2022 were as follows:

	tized Cost and rrying Value	Gı	ross Unrealized Gains	Gı	ross 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

During April and May 2022, the Company completed three insignificant strategic acquisitions of MP2020, Inc., also referred to as MFG.com ("MFG"), Linear, and MakerOS, Inc. ("MakerOS"), collectively the "2022 acquisitions."

The following table summarizes the total consideration for the 2022 acquisitions:

	_	Considera	ation
Cash consideration	5	5	8,890
Holdback consideration			1,100
Earnout consideration			2,900
Total consideration		\$	12,890

The holdback consideration represents the portion of the purchase price to be paid within 12 months from the respective closing dates, subject to reduction for certain indemnifications and other potential obligations of the acquired businesses.

(in thousands, except share and per share amounts)

The fair value of the earnout consideration liability for the Linear acquisition was determined using a Monte Carlo simulation based on revenue performance for the 12 months ending December 31, 2022. The estimated fair value at acquisition was \$2,900 and is included in accrued expenses and other liabilities within the consolidated balance sheet. As of December 31, 2022 the estimated fair value of the earnout consideration was \$1,076. The earnout will be payable in cash and equity in April 2023. There is no earnout consideration for the MFG or MakerOS acquisitions.

The Company has accounted for the MFG and Linear acquisitions as a business combination in accordance with ASC Topic 805 *Business Combinations* ("ASC 805"), and the acquisition of Maker OS as an asset purchase. The net assets acquired in the acquisitions was \$12,890 which includes \$5,903 of net intangible assets and \$4,451 of goodwill. The Company has allocated the purchase price based on preliminary estimates of fair value for the assets acquired and liabilities assumed using information currently available. Adjustments, if any, to the preliminary allocation are not expected to be material.

The Company has determined that the impact of these acquisitions 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.

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 shop owner products through its e-commerce website over time using the output method. Contracts involving the sale of shop owner 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.

(in thousands, except share and per share amounts)

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 acquisition of MFG and MakerOS, both completed in April 2022. Software revenue for the year ended December 31, 2022 reflects the April 2022 acquisition of MFG.

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 our revenues disaggregated by revenue discipline:

	Year Ended December 31,			
	2022		2021	
Major products and service lines:				
Direct sales	\$ 25,429	\$	25,554	
Marketplace sales	5,932		7,772	
Software	1,796		297	
Total revenue	\$ 33,157	\$	33,623	
Timing of revenue recognition:				
Products transferred at a point in time	\$ 5,932	\$	7,772	
Products and services transferred over time	27,225		25,851	
Total revenue	\$ 33,157	\$	33,623	

(in thousands, except share and per share amounts)

Deferred Revenue

The Company records deferred revenue when cash payments are received in advance of performance. Deferred revenue activity for the years ended December 31, 2022 and 2021 was as follows:

	 December 31,			
	2022		2021	
Balance at beginning of year	\$ 921	\$	753	
Deferred revenue recognized during year	(33,157)		(33,623)	
Additions to deferred revenue during year	 33,208		33,791	
Total deferred revenue	\$ 972	\$	921	

The Company expects to satisfy its remaining performance obligations within the next twelve months. The \$921 of deferred revenue as of January 1, 2022 was recognized during the year ended December 31, 2022. The opening balance of accounts receivable as of January 1, 2021 was \$185.

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:

	Decem	ber 31,
	2022	2021
Raw materials	\$ 849	\$ 735
Work-in-process	209	28
Finished goods	249	164
Total	\$ 1,307	\$ 927

Note 7. Prepaid Expenses and Other Current Assets

Prepaid expenses and other current assets consisted of the following:

	December 31,				
		2022		2021	
Prepaid operating expenses	\$	3,231	\$	396	
Prepaid insurance		401		2,338	
Prepaid expenses		1,384		680	
Security deposits		175		_	
VAT receivable		990		945	
Other current assets		74		1	
Total	\$	6,255	\$	4,360	

(in thousands, except share and per share amounts)

Note 8. Property and Equipment, net

Property and equipment consisted of the following:

	December 31,				
	2022		2021		
Machinery and equipment	\$ 10,450	\$	6,996		
Computers and IT equipment	1,138		957		
Furniture and fixtures	81		49		
Leasehold improvements	2,429		2,482		
Vehicles	42		_		
Assets to be placed in service	11,749		2,442		
Property and equipment	 25,889		12,926		
Less: Accumulated depreciation	(10,262)		(8,538)		
Property and equipment, net	\$ 15,627	\$	4,388		

For the years ended December 31, 2022 and 2021, depreciation expense totaled \$,009 and \$593, respectively. Of these amounts, depreciation charged to cost of revenue was \$866 and \$460 for the years ended December 31, 2022 and 2021, respectively.

Note 9. Goodwill and Intangible Assets

Changes in the carrying amount of goodwill as of December 31, 2022 and December 31, 2021 are as follows:

	Goodwill			
Balance at December 31, 2021	\$	1,835		
Acquired goodwill		4,451		
Balance at December 31, 2022	\$	6,286		

The Company has no accumulated impairment losses on goodwill during the years ended December 31, 2022 and 2021.

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	\$	5,903	\$	(505)	\$	5,398	

(in thousands, except share and per share amounts)

The Company recognized \$505 of amortization expense during the year ended December 31, 2022. There wasno amortization expense recorded for the year ended December 31, 2021. The Company estimates the future aggregate amortization expense related to its intangible assets as of December 31, 2022 will be as follows:

	Amortization exp	pense
2023	\$	757
2024		740
2025		689
2026		555
2027		498
Thereafter	2	2,159
Total	\$ 5	5,398

Note 10. Accrued Expenses and Other Liabilities

Accrued expenses consisted of the following:

		December 31,				
	'	2022		2021		
Accrued compensation	\$	1,504	\$	814		
Earnout consideration		1,076		_		
Holdback payable		1,100		_		
Accrued selling expenses		487		522		
Taxes payable		339		328		
Accrued acquisition of property and equipment		225		_		
Other		1,219		981		
Total	\$	5,950	\$	2,645		

Note 11. Commitments and Contingencies

Leases

During the year ended December 31, 2022, the Company maintained five leases of facilities located in the United States and the Netherlands, as well as, one lease of office equipment, under operating leases. The Company previously leased a manufacturing facility in Long Island City, New York, which expired in January 2023. The Company did not renew its lease at the Long Island City facility, but now houses its production in the Livonia facility.

For the years ended December 31, 2022 and 2021, operating lease expense was \$1,000 and \$839, respectively. The Company also recorded sublease income of \$255 during the year ended December 31, 2022 associated with the Company's sublease of its facility in Michigan. The company had no sublease income during the year ended December 31, 2021. The Company records sublease income within Other income on the consolidated statements of operations and comprehensive loss.

(in thousands, except share and per share amounts)

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

	December 31,			
	 2022		2021	
Assets:	 			
Right-of-use assets, net	\$ 2,365	\$	842	
Total lease assets	\$ 2,365	\$	842	
Liabilities:				
Current liabilities:				
Operating lease liabilities, current	\$ 719	\$	639	
Non-current liabilities:				
Operating lease liabilities, net of current portion	1,715		326	
Total lease liability	\$ 2,434	\$	965	

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 leases was 3.06 years and the weighted-average incremental borrowing rate was 7.07% as of December 31, 2022.

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

_	Years Ended December 31,		
	2022	2021	
Operating cash flows from operating leases	\$ 1,049	\$ 928	}
Lease liabilities arising from obtaining right-of-use assets	\$ 285	\$ —	-

As of December 31, 2022, future minimum lease payments required under operating leases are as follows:

2023	\$ 872
2024	846
2025	782
2026	 237
Total minimum lease payments	2,737
Less effects of discounting	 (303)
Present value of future minimum lease payments	\$ 2,434

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 consolidated financial position or results of operations as of and for the years ended December 31, 2022 and 2021.

Note 12. Stockholders' Equity

The consolidated statements of changes in stockholders' equity (deficit) reflects the Business Combination as of September 29, 2021 as defined in Note 1. As Legacy Shapeways was deemed the accounting acquirer in the Business Combination with Galileo, all periods prior to the Closing date reflect the balances and activity of Legacy Shapeways. The balances as of January 1, 2021 from the consolidated financial statements of Legacy Shapeways as of that date, share activity (convertible

(in thousands, except share and per share amounts)

preferred stock, common stock, additional paid in capital, accumulated deficit, and accumulated other comprehensive loss) and per share amounts were retroactively adjusted, where applicable, using the recapitalization conversion ratio of 0.8293 (the "Conversion Ratio") established in the Merger.

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 of \$0.0001. The holders of Common Stock are entitled toone 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 49,445,174 and 48,627,739 shares of Common Stock as of December 31, 2022 and 2021, respectively.

Legacy Shapeways Common Stock Warrants

On December 18, 2013, in connection with executing a loan agreement, the Company issued warrants to purchase40,000 shares of Legacy Shapeways common stock. The warrants had an exercise price of \$1.25 per share and had an expiration date of December 18, 2023.

On February 3, 2014, in connection with executing a lease agreement, the Company issued warrants to purchase 248,000 shares of Legacy Shapeways common stock. The warrants had an exercise price of \$1.25 per share and expired upon the latest to occur (i)seven years from the original issuance date or (ii) five years from the effective date of an initial public offering.

On April 22, 2015, in connection to an amended loan agreement, the Company issued warrants to purchasel 3,750 shares of Legacy Shapeways common stock. The warrants had an exercise price of \$1.70 per share and had an expiration date of April 22, 2025.

Immediately prior to the completion of the Business Combination, all outstanding Legacy Shapeways common stock warrants were exercised into an aggregate o£55,917 shares of Legacy Shapeways common stock (212,234 shares of common stock post Business Combination).

Legacy Shapeways Convertible Preferred Stock

Immediately prior to the completion of the Business Combination, all outstanding shares of the Legacy Shapeways Series A-1, Series B, Series B, Series C, Series D, and Series E preferred stock converted into an aggregate of 22,579,695 shares of common stock. Each share of Legacy Shapeways convertible preferred stock was converted into one share of Legacy Shapeways common stock.

Legacy Shapeways Preferred Stock Warrants

On March 8, 2013, the Company issued warrants to purchase a total of 23,125 shares of Series B-1 preferred stock of Legacy Shapeways. The warrants had an exercise price of \$2.5946 per share and were exercisable forten years from the date of grant. On May 10, 2021, the 23,125 warrants were exercised for 23,125 shares of Series B-1 preferred stock of Legacy Shapeways at an exercise price of \$2.5946 per share.

On June 30, 2017, in connection with executing a loan agreement, the Company issued warrants to purchase a total of 57,051 shares of Series D preferred stock of Legacy Shapeways. The warrants had an exercise price of \$5.2584 per share and were exercisable forten years from the date of grant. Immediately prior to the completion of the Business Combination, the 57,051 warrants were exercised for 107,580 shares of Legacy Shapeways common stock.

Public Warrants

Prior to the Merger, the Company had outstanding 13,800,000 Public Warrants. Each Public Warrant entitles the holder to purchase one share of common stock of the Company at an exercise price of \$11.50 per share. The Public Warrants became

(in thousands, except share and per share amounts)

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 \$18.00 per share, for any 20 days trading days within a 30 days-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 days-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.

In December 2022, the Company and the holders of the Private Warrants entered into letter agreements, pursuant to which such holders agreed thatthe 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 of December 31, 2022 and 2021, there were 18,410,000 and 15,295,612 Public Warrants outstanding, respectively. The following table provides a summary of the Public Warrants outstanding:

	Public Warrants
Public Warrants prior to Merger	13,800,000
Transfers from private to public warrants during 2021	1,495,612
Balance as of December 31, 2021	15,295,612
Transfers from private to public warrants during 2022	3,114,388
Balance as of December 31, 2022	18,410,000

Note 13. Stock-Based Compensation

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 16,942,546 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 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 Equity Inventive Plan (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

(in thousands, except share and per share amounts)

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 year ended December 31, 2022.

Upon the Closing of the Business Combination, the outstanding and unexercised Legacy Shapeways options became options to purchase an aggregate of \$9.01,207 shares of the Company's common stock under the 2010 Plan at an average exercise price of \$0.62 per share.

2021 Equity Incentive Plan

Upon the closing of the Business Combination, the Company adopted 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 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 December 31, 2022, 10,052,787 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 December 31, 2022, 4,339,724 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. As of December 31, 2022, 5,000,000 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 December 31, 2022, 3,207,043 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. The Company is a public company and 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.

(in thousands, except share and per share amounts)

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 no stock options granted during the year ended December 31, 2022. The weighted-average grant-date fair value per stock option granted during the year ended December 31, 2021 was \$0.17. The assumptions used to estimate the fair value of stock options granted during the year ended December 31, 2021 were as follows:

	 Assumptions
Strike price	\$ 0.17
Expected term (in years)	5.55 - 6.05
Expected volatility	57.09% - 57.81%
Risk-free interest rate	0.50% - 0.57%
Dividend yield	— %

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

	Shares Underlying Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value
Outstanding at January 1, 2022	4,806,387	\$ 0.63	6.57	
Granted	_	_		
Forfeited	(139,230)	0.60		
Exercised	(687,624)	0.50		
Outstanding at December 31, 2022	3,979,533	\$ 0.65	5.67	\$ 376
Exercisable at December 31, 2022	3,885,059	\$ 0.65	5.63	\$ 365

The total intrinsic value of options exercised during the years ended December 31, 2022 and 2021 was \$40 and \$9,450, respectively. The intrinsic value of options exercised during each year is calculated as the difference between the market value of the Company's stock price at the time of exercise and the exercise price of the stock option. As of December 31, 2022, approximately \$33 of unrecognized stock compensation expense related to non-vested awards is expected to be recognized over the weighted average period of 0.98 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 at January 1, 2022	660,448	\$ 3.80	
Granted	7,369,406	1.43	
Forfeited	(934,196)	1.71	
Settled	(131,542)	2.34	
Outstanding at December 31, 2022	6,964,116	\$ 1.51	\$ 4,335

The total fair value of restricted stock unit awards vested during the years ended December 31, 2022 and 2021 was \$,121 and \$1,610.

Total unrecognized stock compensation expense related to outstanding restricted stock unit awards was approximately \$0.76 as of December 31, 2022 and is expected to be recognized over the weighted average period of 3.27 years.

(in thousands, except share and per share amounts)

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 December 31, 2022, 1,381,998 shares of common stock are available for purchase under the ESPP. As of December 31, 2022, no shares have been purchased under the ESPP.

Note 14. Fair Value Measurements

Fair value measurements discussed herein are based upon certain market assumptions and pertinent information available to management as of December 31, 2022 and 2021. 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 December 31, 2022 and 2021, and indicates the fair value hierarchy of the valuation inputs the Company utilized to determine such fair value:

		 December 31,		
Description	Level	2022	2021	
Assets:				
Marketable securities - U.S. Treasury Securities	2	\$ 29,680 \$	_	
Liabilities:				
Warrant liabilities	3	\$ — \$	2,274	
Earnout liability	3	\$ 1,076 \$	_	

Warrant Liabilities

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

In December 2022, the Company and the holders of the Private Warrants entered into letter agreements, pursuant to which such holders agreed thatthe 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.

The Private Warrants and Sponsor Warrants were identical to the Public Warrants except that the Private Warrants and Sponsor Warrants (i) were not redeemable by the Company and (ii) may be exercised for cash or on a cashless basis, so long as they are held by the initial purchaser or any of its permitted transferees. If the Private Warrants or Sponsor Warrants are held by someone other than the initial purchasers or their permitted transferees, the Private Warrants or Sponsor Warrants will be redeemable by the Company and exercisable by such holders on the same basis as the Public Warrants. Upon the transfer of a Private Warrant or Sponsor Warrant to a party other than an initial purchaser or any of its

(in thousands, except share and per share amounts)

permitted transferees, the Private Warrants or Sponsor Warrants become Public Warrants and the fair market value of the Private Warrants at the date of the transfer is reclassified to equity.

The Private Warrants and Sponsor Warrants were not indexed to the Company's common stock in the manner contemplated by ASC 815-40-15 because the holder of the instrument was not an input into the pricing of a fixed-for-fixed option on equity shares. The Company classified the Private Warrants and Sponsor Warrants as derivative liabilities in its consolidated balance sheet as of December 31, 2022.

The Company utilized a Binomial Lattice model approach to value the Private Warrants and Sponsor Warrants at each reporting period with changes in fair value recognized in the statement of operations. The estimated fair value of the warrant liabilities was determined using Level 3 inputs. Inherent in a binomial options pricing model are assumptions related to expected share-price volatility, expected life, risk-free interest rate and dividend yield. The Company estimated the volatility of its common stock based on historical volatility that matched the expected remaining life of the warrants. The risk-free interest rate was based on the U.S. Treasury zero-coupon yield curve on the grant date for a maturity similar to the expected remaining life of the warrants. The expected life of the warrants was assumed to be equivalent to their remaining contractual term. The dividend rate was based on the historical rate, which the Company anticipated to remain at zero.

There was no warrant liability balance as of December 31, 2022. The significant unobservable inputs used in the Binomial Lattice Model to measure the warrant liabilities that are categorized within Level 3 of the fair value hierarchy as of December 31, 2021 were as follows:

Stock price on valuation date	\$ 3.71
Exercise price per share	\$ 11.50
Expected life	4.75 years
Volatility	56.4 %
Risk-free rate	1.2 %
Dividend yield	%
Fair value per warrant	\$ 0.73

The following table provides a summary of changes in the Company's warrant liabilities that are classified as Level 3 financial instruments measured at fair value on a recurring basis:

	December 31,			
	2022 2021			2021
Balance at beginning of year	\$	2,274	\$	_
Additions pursuant to Merger		_		11,865
Transfer of Private Warrants to Public Warrants		(690)		(1,485)
Change in fair value		(1,584)		(8,106)
Balance at end of year	\$		\$	2,274

For the years ended December 31, 2022 and 2021, the Company recognized income resulting from a change in the fair value of warrant liabilities of \$,584 and \$8,106, respectively.

There were no private warrants outstanding as of December 31, 2022. Private warrants outstanding as of December 31, 2021 were 3,114,388.

(in thousands, except share and per share amounts)

Earnout Liability

The following table provides a summary of the change in the balance of the earnout liability associated with the acquisition of Linear which is included within the other current liabilities within the balance sheet (See Note 4 for information on the acquisition of Linear):

	Earno	ut Liability
Balance at December 31, 2021	\$	_
Recognition of Linear earnout liability		2,900
Change in fair value		(1,824)
Balance at December 31, 2022	\$	1,076

For the year ended December 31, 2022, the Company recognized income resulting from a change in the fair value of the earnout liability of \$,824.

Fair Value on a Non-Recurring Basis

At the Closing, there were 3,510,405 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 \$14.00 and \$16.00, 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 (\$7.70), 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 December 31, 2022, there were 3,510,405 Earnout Shares unvested and remaining subject to the Earnout Terms.

Note 15. Income Taxes

The provision for income taxes consists of the following:

		Year Ended December 31,		
	20	22	2021	
Income tax provision:				
Current				
Non-US	\$	5 \$	(71)	
Federal		(1)	_	
State		_	_	
Deferred				
Non-US		_	_	
Federal		23	_	
State		4	_	
Provision for income taxes	\$	31 \$	(71)	

(in thousands, except share and per share amounts)

A reconciliation of the income tax expense calculated using the applicable federal statutory rate to the Company's actual income tax expense is as follows:

	December 31,	
	2022	2021
Federal statutory income tax rate	21.00 %	21.00 %
State and local income taxes, net of federal benefit	3.48 %	(9.65)%
Nondeductible expenses	(0.10)%	0.53 %
Other	(0.03)%	— %
Loan forgiveness	—%	(11.53)%
Warrant liabilities	1.65 %	(55.32)%
Stock-based compensation	(0.01)%	(25.33)%
Change in state tax rates	1.74 %	6.07 %
Change in valuation allowance	(26.83)%	73.68 %
True-up adjustments	(1.06)%	(1.67)%
Foreign rate differential	(0.01)%	0.28 %
	(0.17)%	(1.94)%

Deferred income taxes are recognized for the future tax consequences of temporary differences between the financial statement and tax bases of assets and liabilities. The tax effect of temporary differences that give rise to a significant portion of the deferred tax assets and tax liabilities are as follows:

		December 31,	
	202	22	2021
Deferred tax assets:			
Intangible assets and goodwill	\$	15 \$	_
Sec. 174 research and development costs		2,159	_
Accrued expense		112	64
Sec. 263(a)		17	17
Stock compensation		1,157	477
ASC 842 – Operating lease liabilities		565	29
Property and equipment		216	194
Net operating losses		27,036	24,291
Earnout consideration		261	
Tax credits		893	893
Acquisition costs		90	_
Other		251	6
Less: valuation allowance		(32,196)	(25,971)
Total deferred tax assets		576	_
Deferred tax liabilities:			
Intangible assets and goodwill	\$	(28) \$	_
Property equipment		(25)	_
ASC 842 Right-of-use assets		(550)	_
Total deferred tax liabilities		(603)	_
Net deferred tax liabilities	\$	(27) \$	_

(in thousands, except share and per share amounts)

The valuation allowance for deferred tax assets increased by \$6,225 to \$32,196 in 2022. In determining the carrying value of our deferred tax assets, the Company evaluated all available evidence that led to a conclusion that based upon the more-likely-than-not standard of the accounting literature, these deferred tax assets were unrecoverable. The valuation allowance has no impact on the Company's net operating loss ("NOL") position for tax purposes, and if the Company generates taxable income in future periods, it will be able to use the NOLs to offset taxes due at that time.

As of December 31, 2022, the Company had federal net operating loss carryforwards of approximately \$110,791, \$71,122 of which, if not utilized, expire by 2038. Federal net operating loss carryforwards totaling approximately \$39,669 can be carried forward indefinitely. In addition, the Company has state net operating loss carryforwards of approximately \$115,099, with varying expiration dates as determined by each state; some of which may be indefinite lived. Internal Revenue Code of 1986 Section 382 ("Section 382") and Section 383 provide an annual limitation with respect to the ability of a corporation to utilize its tax attributes, as well as certain built-in losses, against future U.S. taxable income in the event of a change of ownership. These carryforwards are not subject to limitation by Section 382 and are all expected to be available to offset future U.S. taxable income.

On March 27, 2020, the President signed the Coronavirus Aid, Relief, and Economic Security ("CARES") Act into law. The CARES Act includes several significant business tax provisions that, among other things, eliminates the taxable income limit for certain net operating losses ("NOLs") and allows businesses to carry back NOLs arising in 2018, 2019 and 2020 to the five prior years, suspends the excess business loss rules, accelerates refunds of previously generated corporate alternative minimum tax credits, generally lossens the business interest limitation under IRC section 163(j) from 30 percent to 50 percent among other technical corrections included in the Tax Cuts and Jobs Act tax provisions. The provisions of the CARES Act did not have a significant impact on the Company's income tax provision, taxes payable, or deferred tax accounts as of December 31, 2022.

Note 16. Significant Concentrations

One customer accounted for approximately 20% and 23% of revenue for the years ended December 31, 2022 and 2021, respectively. No other customers represented more than 10% of revenue for the years ended December 31, 2022 and 2021.

As of December 31, 2022, two customers accounted for approximately 17% and 16% of accounts receivable. As of December 31, 2021, two customers accounted for approximately 32% and 25% of accounts receivable. No other customers represented more than 10% of outstanding accounts receivable as of December 31, 2022 and 2021.

As of December 31, 2022, one vendor represented 10% of accounts payable. As of December 31, 2021, two vendors accounted for approximately 18%, and 11% of accounts payable. No other vendors represented more than 10% of outstanding accounts payable balance as of December 31, 2022 and 2021.

Note 17. Subsequent Events

The Company has evaluated all known subsequent events through March 30, 2023, which is the date these consolidated financial statements were issued, and has determined that no subsequent events have occurred requiring recognition or disclosure in these consolidated financial statements.

Consent of Independent Registered Public Accounting Firm

Shapeways Holdings, Inc.

We consent to the incorporation by reference in Registration Statements (333-261563, 333-264160, 333-268055 and 333-271126) on Form S-8 and the Registration Statements (333-260387 and 333-267763) on Form S-3 of Shapeways Holdings, Inc. of our report dated March 30, 2023, relating to our audits of the consolidated financial statements, appearing in this Amendment No. 1 to the Annual Report on Form 10-K of Shapeways Holdings, Inc. for the years ended December 31, 2022 and 2021.

/s/ WithumSmith+Brown, PC

East Brunswick, New Jersey August 4, 2023

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 Annual Report on Form 10-K/A of Shapeways Holdings, Inc. (the "Registrant") for the year ended December 31, 2022;
- 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 Annual 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 Annual 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 Annual Report is being prepared;
 - 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 4, 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 Annual Report on Form 10-K/A of Shapeways Holdings, Inc. (the "Registrant") for the year ended December 31, 2022;
- 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 Annual 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 Annual 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 Annual Report is being prepared;
 - 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 4, 2023

By: /s/ Alberto Recchi
Alberto Recchi

Chief Financial Officer and Director (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 Annual Report on Form 10-K/A for the period ended December 31, 2022 (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 4, 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 Annual Report on Form 10-K/A for the period ended December 31, 2022 (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 4, 2023 By: /s/ Alberto Recchi

Alberto Recchi
Chief Financial Officer and Director
(Principal Financial and Accounting Officer)