ExOne Co
Form 10-Q
August 09, 2018

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, DC 20549

FORM 10-Q

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended June 30, 2018

OR

TRANSITION REPORT PURSUANT TO SECTION 13 or 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from to

Commission File No. 001-35806

The ExOne Company

(Exact name of registrant as specified in its charter)

Delaware	46-1684608
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

127 Industry Boulevard

North Huntingdon, Pennsylvania 15642

(Address of principal executive offices) (Zip Code)

(724) 863-9663

(Registrant’s telephone number, including area code)

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

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

Large accelerated filer		Accelerated filer
Non-accelerated filer	(Do not check if a smaller reporting company)	Smaller reporting company
		Emerging growth company

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

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

As of August 9, 2018, 16,202,119 shares of common stock, par value $0.01, were outstanding.

IMPLICATIONS OF BEING AN EMERGING GROWTH COMPANY

Since our initial public offering, we have continued to qualify as an “emerging growth company” (“EGC”) as defined in the Jumpstart Our Business Startups Act of 2012 (the “JOBS Act”). An EGC may take advantage of specified reduced reporting requirements and is relieved of certain other significant requirements that are otherwise generally applicable to public companies.

As an EGC:

- We are exempt from the requirement to obtain an attestation and report from our auditors on the assessment of our internal control over financial reporting pursuant to the Sarbanes-Oxley Act of 2002;
- We are permitted to provide less extensive disclosure about our executive compensation arrangements;
- We are not required to give our stockholders non-binding advisory votes on executive compensation or golden parachute arrangements; and
- We have elected to use an extended transition period for complying with new or revised accounting standards.

We may choose to take advantage of some, but not all, of these reduced burdens. We will continue to operate under these provisions until December 31, 2018, or such earlier time that we are no longer an EGC. We would cease to be an EGC if we have more than $1.07 billion in annual revenues, qualify as a “large accelerated filer” under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), which requires us to have more than $700 million in market value of our common stock held by non-affiliates, or issue more than $1.0 billion of non-convertible debt over a three-year period.

PART I – FINANCIAL INFORMATION

Item 1. Financial Statements.

The ExOne Company and Subsidiaries

Condensed Statement of Consolidated Operations and Comprehensive Loss (Unaudited)

(in thousands, except per-share amounts)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
Revenue	$10,857	$10,799	$22,750	$21,668
Cost of sales	9,267	8,773	18,544	18,039
Gross profit	1,590	2,026	4,206	3,629
Operating expenses				
Research and development	3,235	2,349	6,030	4,348
Selling, general and administrative	6,353	6,013	12,555	12,276
	9,588	8,362	18,585	16,624
Loss from operations	(7,998)	(6,336)	(14,379)	(12,995)
Other expense (income)				
Interest expense	73	23	106	45
Other (income) expense net	(52)	35	(98)	145
	21	58	8	190
Loss before income taxes	(8,019)	(6,394)	(14,387)	(13,185)
Provision for income taxes	18	9	35	9
Net loss	$(8,037)	$(6,403)	$(14,422)	$(13,194)
Net loss per common share:				
Basic	$(0.50)	$(0.40)	$(0.89)	$(0.82)
Diluted	$(0.50)	$(0.40)	$(0.89)	$(0.82)
Comprehensive loss:				
Net loss	$(8,037)	$(6,403)	$(14,422)	$(13,194)
Other comprehensive (loss) income:				
Foreign currency translation adjustments	(2,240)	2,493	(838)	3,519
Comprehensive loss	$(10,277)	$(3,910)	$(15,260)	$(9,675)

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

The ExOne Company and Subsidiaries

Condensed Consolidated Balance Sheet (Unaudited)

(in thousands, except per-share and share amounts)

	June 30, 2018	December 31, 2017
Assets		
Current assets:		
Cash and cash equivalents	$11,584	$21,848
Restricted cash	1,463	330
Accounts receivable net of allowance of $1,122 (2018) and $1,193 (2017)	5,003	8,647
Inventories net	20,551	15,430
Prepaid expenses and other current assets	2,677	1,710
Total current assets	41,278	47,965
Property and equipment net	44,791	46,797
Intangible assets net	—	62
Other noncurrent assets	770	736
Total assets	$86,839	$95,560
Liabilities		
Current liabilities:		
Current portion of long-term debt	$140	$137
Current portion of capital leases	16	15
Accounts payable	4,756	4,291
Accrued expenses and other current liabilities	6,665	6,081
Deferred revenue and customer prepayments	13,460	8,282
Total current liabilities	25,037	18,806
Long-term debt net of current portion	1,437	1,508
Capital leases net of current portion	41	36
Other noncurrent liabilities	1	1
Total liabilities	26,516	20,351
Contingencies and commitments		
Stockholders' equity		
Common stock, $0.01 par value, 200,000,000 shares authorized, 16,149,617 (2018) and 16,124,617 (2017) shares issued and outstanding	161	161
Additional paid-in capital	174,092	173,718
Accumulated deficit	(103,608)	(89,186)
Accumulated other comprehensive loss	(10,322)	(9,484)
Total stockholders' equity	60,323	75,209
Total liabilities and stockholders' equity	$86,839	$95,560

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

The ExOne Company and Subsidiaries

Condensed Statement of Consolidated Cash Flows (Unaudited)

(in thousands)

	Six Months Ended June 30, 2018	2017
Operating activities		
Net loss	$(14,422)	$(13,194)
Adjustments to reconcile net loss to net cash used for operations:		
Depreciation and amortization	2,829	3,589
Equity-based compensation	374	835
Amortization of debt issuance costs	27	3
(Recoveries) provision for bad debts net	(37)	132
Provision for slow-moving, obsolete and lower of cost or net realizable value inventories net	771	1,835
Gain from disposal of property and equipment net	(41)	(314)
Changes in assets and liabilities, excluding effects of foreign currency translation adjustments:		
Decrease in accounts receivable	3,763	69
Increase in inventories	(7,060)	(3,358)
Increase in prepaid expenses and other assets	(658)	(770)
Increase in accounts payable	445	2,111
Increase (decrease) in accrued expenses and other liabilities	730	(252)
Increase in deferred revenue and customer prepayments	5,406	2,390
Net cash used for operating activities	(7,873)	(6,924)
Investing activities		
Capital expenditures	(819)	(392)
Proceeds from sale of property and equipment	25	3,677
Net cash (used for) provided by investing activities	(794)	3,285
Financing activities		
Payments on long-term debt	(70)	(68)
Payments on capital leases	(9)	(45)
Debt issuance costs	(188)	—
Net cash used for financing activities	(267)	(113)
Effect of exchange rate changes on cash, cash equivalents, and restricted cash	(197)	760
Net change in cash, cash equivalents, and restricted cash	(9,131)	(2,992)
Cash, cash equivalents, and restricted cash at beginning of period	22,178	28,155
Cash, cash equivalents, and restricted cash at end of period	$13,047	$25,163
Supplemental disclosure of noncash investing and financing activities		
Transfer of internally developed 3D printing machines from inventories to property and equipment for internal use or leasing activities	$895	$1,917
Transfer of internally developed 3D printing machines from property and equipment to	$424	$395

inventories for sale		
Property and equipment acquired through financing arrangements	$14	$48
Unsettled proceeds from sale of property and equipment	$51	$—
Property and equipment included in accounts payable	$95	$100
Property and equipment included in accrued expenses and other current liabilities	$23	$—
Debt issuance costs included in accounts payable	$76	$—

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

The ExOne Company and Subsidiaries

Condensed Statement of Changes in Consolidated Stockholders’ Equity (Unaudited)

(in thousands)

	Common stock Shares	$	Additional paid-in capital	Accumulated deficit	Accumulated other comprehensive loss	Total stockholders' equity
Balance at December 31, 2016	16,017	$160	$ 171,116	$ (68,761)	$ (14,735)	$ 87,780
Cumulative-effect adjustment due to the adoption of Financial Accounting Standards Board Accounting Standards Update 2016-16	—	—	—	(408)	—	(408)
Net loss	—	—	—	(13,194)	—	(13,194)
Other comprehensive income	—	—	—	—	3,519	3,519
Equity-based compensation	—	—	835	—	—	835
Common stock issued from equity incentive plan	29	—	—	—	—	—
Balance at June 30, 2017	16,046	$160	$ 171,951	$ (82,363)	$ (11,216)	$ 78,532
Balance at December 31, 2017	16,125	$161	$ 173,718	$ (89,186)	$ (9,484)	$ 75,209
Net loss	—	—	—	(14,422)	—	(14,422)
Other comprehensive loss	—	—	—	—	(838)	(838)
Equity-based compensation	—	—	374	—	—	374
Common stock issued from equity incentive plan	25	—	—	—	—	—
Balance at June 30, 2018	16,150	$161	$ 174,092	$ (103,608)	$ (10,322)	$ 60,323

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

The ExOne Company and Subsidiaries

Notes to the Condensed Consolidated Financial Statements (Unaudited)

(dollars in thousands, except per-share and share amounts)

Note 1. Basis of Presentation

Organization

The ExOne Company ("ExOne") is a corporation organized under the laws of the state of Delaware. ExOne was formed on January 1, 2013, when The Ex One Company, LLC, a Delaware limited liability company, merged with and into a Delaware corporation, which survived and changed its name to The ExOne Company (the "Reorganization"). As a result of the Reorganization, The Ex One Company, LLC became ExOne, the common and preferred interest holders of The Ex One Company, LLC became holders of common stock and preferred stock, respectively, of ExOne, and the subsidiaries of The Ex One Company, LLC became the subsidiaries of ExOne. The condensed consolidated financial statements include the accounts of ExOne, its wholly-owned subsidiaries, ExOne Americas LLC (United States); ExOne GmbH (Germany); ExOne Property GmbH (Germany); ExOne KK (Japan); ExOne Italy S.r.l (Italy); and through December 2017, ExOne Sweden AB (Sweden). Collectively, the consolidated group is referred to as the "Company".

The Company filed a registration statement on Form S-3 (No. 333-223690) with the Securities and Exchange Commission ("SEC") on March 15, 2018. The purpose of the Form S-3 was to register, among other securities, debt securities. Subsidiaries of the Company are co-registrants with the Company ("Subsidiary Guarantors"), and the registration statement registered guarantees of debt securities by one or more of the Subsidiary Guarantors. The Subsidiary Guarantors are 100% owned by the Company and any guarantees by the Subsidiary Guarantors will be full and unconditional.

Basis of Presentation

The condensed consolidated financial statements of the Company are unaudited. The condensed consolidated financial statements include all adjustments, consisting of normal recurring adjustments, considered necessary by management to fairly state the results of operations, financial position and cash flows of the Company. All material intercompany transactions and balances have been eliminated in consolidation. The results reported in these condensed consolidated financial statements are not necessarily indicative of the results that may be expected for the entire year. The December 31, 2017 condensed consolidated balance sheet data was derived from the audited financial statements but does not include all disclosures required by accounting principles generally accepted in the United States of America ("GAAP"). This Quarterly Report on Form 10-Q should be read in connection with the Company's Annual Report on Form 10-K for the year ended December 31, 2017, which includes all disclosures required by GAAP.

The preparation of these condensed consolidated financial statements requires the Company to make certain judgments, estimates and assumptions regarding uncertainties that affect the reported amounts of assets, liabilities, revenue and expenses and related disclosure of contingent assets and liabilities. Areas that require significant judgments, estimates and assumptions include accounting for accounts receivable (including the allowance for doubtful accounts); inventories (including the allowance for slow-moving and obsolete inventories); product warranty reserves; contingencies; income taxes (including the valuation allowance on certain deferred tax assets and liabilities for uncertain tax positions); equity-based compensation (including the valuation of certain equity-based compensation awards issued by the Company); and testing for impairment of long-lived assets (including the identification of asset groups by management, estimates of future cash flows of identified asset groups and fair value estimates used in connection with assessing the valuation of identified asset groups). The Company bases its estimates on historical experience and on various other assumptions that are believed to be reasonable, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates.

Recently Adopted Accounting Guidance

On January 1, 2018, the Company adopted Financial Accounting Standards Board ("FASB") Accounting Standards Update ("ASU") ASU 2017-09, "Compensation – Stock Compensation: Scope of Modification Accounting." This ASU requires registrants to apply modification accounting unless three specific criteria are met. The three criteria are: the fair value of the award is the same before and after the modification, the vesting conditions are the same before and after the modification and the classification as a debt or equity award is the same before and after the modification. Management has determined that the adoption of this ASU did not have an impact on the consolidated financial statements of the Company.

On January 1, 2017, the Company adopted FASB ASU 2016-16, "Income Taxes: Intra-Entity Transfers of Assets Other Than Inventory." This ASU modifies existing guidance and is intended to reduce diversity in practice with respect to the accounting for the income tax consequences of intra-entity transfers of assets. The ASU indicates that the former exception to income tax accounting that requires companies to defer the income tax effects of certain intercompany transactions would apply only to intercompany inventory transactions. That is, the exception no longer applies to intercompany sales and transfers of other assets (e.g., property and equipment or intangible assets). Under the former exception, income tax expense associated with intra-entity profits in an intercompany sale or transfer of assets was eliminated from earnings. Instead, that cost was deferred and recorded on the balance sheet (e.g., as a prepaid asset) until the assets left the consolidated group. Similarly, the entity was prohibited from recognizing deferred tax assets for the increases in tax bases due to the intercompany sale or transfer. A modified retrospective basis of adoption was required for this ASU. As a result, a cumulative-effect adjustment of approximately $408 has been recorded to accumulated deficit on January 1, 2017, in connection with this adoption. This cumulative-effect adjustment relates to the prepaid expense associated with intra-entity transfers of property and equipment included in prepaid expenses and other current assets at December 31, 2016.

Recently Issued Accounting Guidance

The Company considers the applicability and impact of all ASUs issued by the FASB. Recently issued ASUs not listed below either were assessed and determined to be not applicable or are currently expected to have no impact on the consolidated financial statements of the Company.

In August 2016, the FASB issued ASU 2016-15, "Statement of Cash Flows: Classification of Certain Cash Receipts and Cash Payments." This ASU is intended to reduce diversity in practice in how certain cash receipts and payments are presented and classified in the statement of cash flows. The standard provides guidance in a number of situations including, among others, settlement of zero-coupon bonds, contingent consideration payments made after a business combination, proceeds from the settlement of insurance claims, and distributions received from equity method investees. The ASU also provides guidance for classifying cash receipts and payments that have aspects of more than one class of cash flows. This ASU becomes effective for the Company on January 1, 2019. Early adoption is permitted. Management is currently evaluating the potential impact of this ASU on the consolidated financial statements of the Company.

In February 2016, the FASB issued ASU 2016-02, "Leases." As a result of this ASU, lessees will be required to recognize the following for all leases (with the exception of short-term leases) at the commencement date: a lease liability, which is a lessee's obligation to make lease payments arising from a lease, measured on a discounted basis; and a right-of-use asset, which is an asset that represents the lessee's right to use, or control the use of, a specified asset for the lease term. As a result of this ASU, lessor accounting is largely unchanged and lessees will no longer be provided with a source of off-balance sheet financing. This ASU becomes effective for the Company on January 1, 2019. Early adoption is permitted. Lessees (for capital and operating leases) and lessors (for sales-type, direct financing, and operating leases) must apply a modified retrospective transition approach for leases existing at, or entered into after, the beginning of the earliest comparative period presented in the consolidated financial statements. The modified retrospective approach would not require any transition accounting for leases that expired before the earliest comparative period presented. Lessees and lessors may not apply a full retrospective transition approach. Management is currently evaluating the potential impact of this ASU on the consolidated financial statements of the Company.

In May 2014, the FASB issued ASU 2014-09, "Revenue from Contracts with Customers." This ASU created a comprehensive framework for all entities in all industries to apply in the determination of when to recognize revenue and, therefore, supersedes virtually all existing revenue recognition requirements and guidance. This framework is expected to provide a consistent and comparable methodology for revenue recognition. The core principle of the guidance is that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. To achieve this principle, an entity should apply the following steps: identify the contract(s) with a customer, identify the performance obligations in the contract(s), determine the transaction price, allocate the transaction price to the performance obligations in the contract(s), and recognize revenue when, or as, the entity satisfies a performance obligation. In August 2015, the FASB issued ASU 2015-14, "Revenue from Contracts with Customers: Deferral of the Effective Date," which deferred the effective date of this guidance for the Company until January 1, 2019. Management is currently evaluating the potential impact of these collective changes on the consolidated financial statements of the Company. The Company plans to utilize the modified retrospective method in connection with its future adoption of this ASU, as amended.

Note 2. Liquidity

The Company has incurred a net loss in each of its annual periods since its inception. As shown in the accompanying condensed statement of consolidated operations and comprehensive loss, the Company incurred a net loss of approximately $8,037 and $14,422 for the three and six months ended June 30, 2018, respectively. Since its inception, the Company has received cumulative unrestricted net proceeds from the sale of its common stock (through its initial public offering and subsequent secondary offerings) of approximately $168,361 to fund its operations. At June 30, 2018, the Company had approximately $11,584 in unrestricted cash and cash equivalents.

In March 2018 the Company entered into a three-year, $15,000 revolving credit facility with a related party (Note 11) to provide additional funding for working capital and general corporate purposes.

In June 2018 the Company initiated a global cost realignment program focused on a reduction in the Company's production overhead costs and operating expenses.

Management believes that the Company's existing capital resources will be sufficient to support the Company's operating plan. If management anticipates that the Company's actual results will differ from its operating plan, management believes it has sufficient capabilities to enact cost savings measures to preserve capital (in addition to the costs savings measures associated with the Company's global cost realignment program further described above). The Company may also seek to raise additional capital to support its growth through additional debt, equity or other alternatives (including asset sales) or a combination thereof.

Note 3. Accumulated Other Comprehensive Loss

The following table summarizes changes in the components of accumulated other comprehensive loss:

Foreign currency translation adjustments	Three Months Ended June 30, 2018	2017	Six Months Ended June 30, 2018	2017
Balance at beginning of period	$(8,082)	$(13,709)	$(9,484)	$(14,735)
Other comprehensive (loss) income	(2,240)	2,493	(838)	3,519
Balance at end of period	$(10,322)	$(11,216)	$(10,322)	$(11,216)

Foreign currency translation adjustments consist of the effect of translation of functional currency financial statements (denominated in the euro and Japanese yen) to the reporting currency of the Company (United States dollar) and certain long-term intercompany transactions between subsidiaries for which settlement is not planned or anticipated in the foreseeable future.

There were no tax impacts related to income tax rate changes and no amounts were reclassified to earnings for either of the periods presented.

Note 4. Loss Per Share

The Company presents basic and diluted loss per common share amounts. Basic loss per common share is calculated by dividing net loss available to common stockholders by the weighted average number of common shares outstanding during the applicable period. Diluted loss per common share is calculated by dividing net loss available to common stockholders by the weighted average number of common shares and common equivalent shares outstanding during the applicable period.

As the Company incurred a net loss during each of the three months and six months ended June 30, 2018 and 2017, basic average common shares outstanding and diluted average common shares outstanding were the same because the effect of potential shares of common stock, including stock options (536,635 – 2018 and 351,137 – 2017) and unvested restricted stock issued (52,502 – 2018 and 83,670 – 2017), was anti-dilutive.

The information used to compute basic and diluted net loss per common share was as follows:

	Three Months Ended June 30, 2018	2017	Six Months Ended June 30, 2018	2017
Net loss	$(8,037)	$(6,403)	$(14,422)	$(13,194)
Weighted average shares outstanding (basic and diluted)	16,149,617	16,045,949	16,144,092	16,037,475
Net loss per common share:				
Basic	$(0.50)	$(0.40)	$(0.89)	$(0.82)
Diluted	$(0.50)	$(0.40)	$(0.89)	$(0.82)

Note 5. Restructuring

Desenzano del Garda, Italy

In December 2017 the Company committed to a plan to consolidate certain of its three-dimensional (“3D”) printing operations from its Desenzano del Garda, Italy facility into its Gersthofen, Germany facility. These actions were taken as part of the Company’s efforts to optimize its business model and maximize its facility utilization. During the three months ended December 31, 2017, the Company recorded a charge of approximately $72 split between cost of sales ($19) and selling, general and administrative expense ($53) associated with involuntary employee terminations related to this plan. During the three months ended March 31, 2018, the Company recorded an additional charge of approximately $245 associated with other exit costs ($17) and asset impairments ($228) related to this plan. During the three months ended June 30, 2018, the Company recorded an additional charge of approximately $13 associated with asset impairments related to this plan. In addition, during the three months ended June 30, 2018, the Company recorded a gain from disposal of certain property and equipment of approximately $51 (recorded to cost of sales in the accompanying condensed statement of consolidated operations and comprehensive loss). Charges associated with other exit costs recorded during the six months ended June 30, 2018 were recorded to cost of sales in the accompanying condensed statement of consolidated operations and comprehensive loss. Charges associated with asset impairments recorded during the three and six months ended June 30, 2018 were recorded to cost of sales as a component of depreciation expense in the accompanying condensed statement of consolidated operations and comprehensive loss. Other exit costs relate to the remaining facility rent due under a non-cancellable operating lease following the cessation of operations at the facility in January 2018. Asset impairment charges relate to certain leasehold improvements associated with the exited facility and other equipment which was abandoned by the Company. There are no additional charges expected to be incurred associated with this plan in future periods. The Company settled all amounts associated with involuntary employee terminations and facility rentals during the six months ended June 30, 2018.

North Las Vegas, Nevada and Chesterfield, Michigan

In January 2017 the Company committed to a plan to consolidate certain of its 3D printing operations from its North Las Vegas, Nevada facility into its Troy, Michigan and Houston, Texas facilities and exit its non-core specialty machining operations in its Chesterfield, Michigan facility. These actions were taken as a result of the accelerating adoption rate of the Company’s indirect printing technology in North America which resulted in a refocus of the Company’s operational strategy.

As a result of these actions, during the three months ended March 31, 2017, the Company recorded charges of approximately $984, including approximately $110 associated with involuntary employee terminations, approximately $7 associated with other exit costs and approximately $867 associated with asset impairments. Charges associated with involuntary employee terminations and other exit costs were recorded to cost of sales in the accompanying condensed statement of consolidated operations and comprehensive loss. Charges associated with asset impairments were split between cost of sales ($598), as a component of depreciation expense, and selling, general and administrative expenses ($269), as a component of amortization expense, in the accompanying condensed statement of consolidated operations and comprehensive loss. During the three months ended June 30, 2017, the Company recorded an additional charge of approximately $32 associated with an additional involuntary employee termination which required a service commitment through April 2017. This charge was recorded to cost of sales in the accompanying condensed statement of operations and comprehensive loss. There are no additional charges expected to be incurred associated with this plan in future periods. The Company settled all amounts associated with involuntary employee terminations and other exit costs during 2017.

Charges associated with asset impairments relate principally to the Company’s plan to exit its non-core specialty machining operations in its Chesterfield, Michigan facility. On April 21, 2017, the Company sold to a third party certain assets associated with these operations including inventories (approximately $79), property and equipment (approximately $2,475) and other contractual rights (approximately $269). Total gross proceeds from the sale of these assets were approximately $2,050. After deducting costs directly attributable to the sale of these assets (approximately $128), the Company recorded an impairment loss during the three months ended March 31, 2017, of approximately $859 split between property and equipment ($590) and intangible assets ($269) based on the excess of the carrying value over the estimated fair value of the related assets at March 31, 2017. During the three months ended June 30, 2017, the Company recorded a loss on disposal of approximately $42. Both the impairment loss and the loss on disposal were recorded to cost of sales in the accompanying condensed statement of consolidated operations and comprehensive loss.

Separate from the transaction described above, on May 9, 2017, the Company sold to a third party certain property and equipment (principally land and building) associated with its North Las Vegas, Nevada facility. Total gross proceeds from the sale of these assets were approximately $1,950. After deducting costs directly attributable to the sale of these assets (approximately $137), the Company recorded a gain on disposal (recorded to cost of sales in the accompanying condensed statement of consolidated operations and comprehensive loss) during the three months ended June 30, 2017, of approximately $347. Additionally, the Company recorded an impairment loss during the three months ended March 31, 2017, of approximately $8 associated with certain property and equipment which was abandoned in connection with the Company’s exit of its North Las Vegas, Nevada facility.

Note 6. Impairment

During the three months ended June 30, 2018, as a result of continued operating losses and cash flow deficiencies, the Company identified a triggering event requiring a test for the recoverability of long-lived assets held and used at the asset group level. Assessing the recoverability of long-lived assets held and used requires significant judgments and estimates by management.

For purposes of testing long-lived assets for recoverability, the Company operates as three separate asset groups: United States, Europe and Japan. In assessing the recoverability of long-lived assets held and used, the Company determined the carrying amount of long-lived assets held and used to be in excess of the estimated future undiscounted net cash flows of the related assets. The Company proceeded to determine the fair value of its long-lived assets held and used, principally through use of the market approach. The Company's use of the market approach included consideration of market transactions for comparable assets. Management concluded that the fair value of long-lived assets held and used exceeded their carrying value and as such no impairment loss was recorded.

A significant decrease in the market price of a long-lived asset, adverse change in the use or condition of a long-lived asset, adverse change in the business climate or legal or regulatory factors impacting a long-lived asset and continued operating losses and cash flow deficiencies associated with a long-lived asset, among other indicators, could cause a future assessment to be performed which may result in an impairment of long-lived assets held and used, resulting in a material adverse effect on the financial position and results of operations of the Company.

Note 7. Cash, Cash Equivalents, and Restricted Cash

The following provides a reconciliation of cash, cash equivalents, and restricted cash as reported in the accompanying condensed consolidated balance sheet to the same such amounts shown in the accompanying condensed statement of consolidated cash flows:

	June 30, 2018	December 31, 2017
Cash and cash equivalents	$11,584	$ 21,848
Restricted cash	1,463	330
Cash, cash equivalents, and restricted cash	$13,047	$ 22,178

Restricted cash at June 30, 2018 includes approximately $963 associated with cash collateral required by a German bank for short-term financial guarantees issued by ExOne GmbH in connection with certain commercial transactions requiring security (Note 10). Restricted cash at June 30, 2018 and December 31, 2017 includes approximately $500 and $330, respectively, associated with cash collateral required by a United States bank to offset certain short-term, unsecured lending commitments associated with the Company's corporate credit card program. Each of the balances described are considered legally restricted by the Company.

Note 8. Inventories

Inventories consist of the following:

	June 30, 2018	December 31, 2017
Raw materials and components	$9,092	$ 7,171
Work in process	6,334	4,630
Finished goods	5,125	3,629
	$20,551	$ 15,430

Raw materials and components consist of consumable materials and component parts and subassemblies associated with 3D printing machine manufacturing and support activities. Work in process consists of 3D printing machines and other products in varying stages of completion. Finished goods consist of 3D printing machines and other products prepared for sale in accordance with customer specifications.

At June 30, 2018 and December 31, 2017, the allowance for slow-moving and obsolete inventories was approximately $4,026 and $3,437, respectively, and has been reflected as a reduction to inventories (principally raw materials and components).

During the three months ended June 30, 2018, the Company recorded a charge of approximately $561 to cost of sales in the accompanying condensed statement of consolidated operations and comprehensive loss attributable to certain industrial microwave inventories based on a sustained absence of demand for such curing solutions and a decision by the Company to discontinue future manufacturing of such industrial microwaves.

During the three months ended June 30, 2017, the Company recorded a charge of approximately $1,460 to cost of sales in the accompanying condensed statement of consolidated operations and comprehensive loss attributable to certain raw material and component inventories (principally machine frames and other fabricated components) associated with the Company's Exerial 3D printing machine platform based on decisions made by the Company during the period related to certain design changes to the underlying platform (rendering certain elements of the previous design obsolete).

During the three and six months ended June 30, 2018, the Company recorded a net credit of approximately ($15) and ($30), respectively, to cost of sales in the accompanying condensed statement of consolidated operations and comprehensive loss associated with certain inventories for which cost was determined to exceed net realizable value. During the three and six months ended June 30, 2017, the Company recorded a net (credit) charge of approximately ($79) and $127, respectively, to cost of sales in the accompanying condensed statement of consolidated operations and comprehensive loss associated with certain inventories for which cost was determined to exceed net realizable value.

Note 9. Product Warranty Reserves

Substantially all of the Company’s 3D printing machines are covered by a standard twelve month warranty. Generally, at the time of sale, a liability is recorded (with an offset to cost of sales) based upon the expected cost of replacement parts and labor to be incurred over the life of the standard warranty. Expected cost is estimated using historical experience for similar products. The Company periodically assesses the adequacy of the product warranty reserves based on changes in these factors and records any necessary adjustments if actual experience indicates that adjustments are necessary. Future claims experience could be materially different from prior results because of the introduction of new, more complex products, a change in the Company’s warranty policy in response to industry trends, competition or other external forces, or manufacturing changes that could impact product quality. In the event that the Company determines that its current or future product repair and replacement costs exceed estimates, an adjustment to these reserves would be charged to cost of sales in the period such a determination is made.

The following table summarizes changes in product warranty reserves (such amounts reflected in accrued expenses and other current liabilities in the accompanying condensed consolidated balance sheet for each respective period):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
Balance at beginning of period	$1,148	$1,044	$1,300	$1,115
Provisions for new issuances	167	284	386	520
Payments	(120)	(84)	(328)	(253)
Reserve adjustments	(252)	(216)	(439)	(366)
Foreign currency translation adjustments	(34)	47	(10)	59
Balance at end of period	$909	$1,075	$909	$1,075

Note 10. Contingencies and Commitments

Contingencies

On March 1, 2018, the Company’s ExOne GmbH subsidiary notified Voxeljet AG that it has materially breached a 2003 Patent and Know-How Transfer Agreement and asserted its rights to set-off damages as a result of the breaches against the annual license fee due from the Company under the agreement. At this time, the Company cannot reasonably estimate a contingency, if any, related to this matter.

The Company and its subsidiaries are subject to various litigation, claims, and proceedings which have been or may be instituted or asserted from time to time in the ordinary course of business. Management does not believe that the outcome of any pending or threatened matters will have a material adverse effect, individually or in the aggregate, on the financial position, results of operations or cash flows of the Company.

Commitments

In the normal course of its operations, ExOne GmbH issues short-term financial guarantees and letters of credit to third parties in connection with certain commercial transactions requiring security. ExOne GmbH maintains a credit facility with a German bank which provides for various short-term financings in the form of overdraft credit, financial guarantees, letters of credit and collateral security for commercial transactions for an aggregate of approximately

$1,500 (€1,300). In addition, ExOne GmbH may use the credit facility for short-term, fixed-rate loans in minimum increments of approximately $100 (€100) with minimum terms of at least 30 days. The overdraft credit interest rate is fixed at 10.2% while the interest rate associated with commercial transactions requiring security (financial guarantees, letters of credit or collateral security) is fixed at 1.75%. The credit facility has an indefinite term and is subject to cancellation by either party at any time upon repayment of amounts outstanding or expiration of commercial transactions requiring security. There is no commitment fee associated with the credit facility. There are no negative covenants associated with the credit facility. The credit facility has been guaranteed by the Company. At June 30, 2018 and December 31, 2017, there were no outstanding borrowings in the form of overdraft credit or short-term loans under the credit facility. At June 30, 2018, total outstanding financial guarantees and letters of credit issued by ExOne GmbH under the credit facility were approximately $963 (€824) with expiration dates ranging from July 2018 through July 2019. At December 31, 2017, total outstanding financial guarantees and letters of credit issued by ExOne GmbH under the credit facility were approximately $1,128 (€941).

In connection with the related party revolving credit facility agreement entered into by the Company on March 12, 2018 (Note 11), the Company was required to post cash collateral against outstanding financial guarantees and letters of credit associated with the credit facility (Note 7).

In addition to amounts issued by ExOne GmbH under the credit facility, from time to time, ExOne GmbH enters into separate agreements with the same German bank for additional capacity for financial guarantees and letters of credit associated with certain commercial transactions requiring security. Terms of the separate agreements are substantially similar to those of the existing credit facility. At June 30, 2018, ExOne GmbH had a singular financial guarantee outstanding under a separate agreement for approximately $93 (€80) with an expiration date of June 2022. Related to this separate agreement, the requirement for cash collateral was waived by the German bank as it also represents the counterparty in the related transaction.

Note 11. Related Party Revolving Credit Facility

On March 12, 2018, ExOne and its ExOne Americas LLC and ExOne GmbH subsidiaries, as guarantors (collectively, the "Loan Parties"), entered into a Credit Agreement and related ancillary agreements with LBM Holdings, LLC ("LBM"), a company controlled by S. Kent Rockwell, who was the Executive Chairman of the Company (a related party) at such date, relating to a $15,000 revolving credit facility (the "LBM Credit Agreement") to provide additional funding for working capital and general corporate purposes. The LBM Credit Agreement provides for a term of three years (through March 12, 2021) and bears interest at a rate of one month LIBOR plus an applicable margin of 500 basis points (approximately 6.7% and 7.1% at inception and June 30, 2018, respectively). The LBM Credit Agreement requires a commitment fee of 75 basis points, or 0.75%, on the unused portion of the facility, payable monthly in arrears. In addition, an up-front commitment fee of 125 basis points, or 1.25% (approximately $188), was required at closing. Borrowings under the LBM Credit Agreement are required to be in minimum increments of $1,000. ExOne may terminate or reduce the credit commitment at any time during the term of the LBM Credit Agreement without penalty. ExOne may also make prepayments against outstanding borrowings under the LBM Credit Agreement at any time without penalty. Borrowings under the LBM Credit Agreement have been collateralized by the accounts receivable, inventories and machinery and equipment of the Loan Parties. At inception and June 30, 2018 the total estimated value of collateral was in significant excess of the maximum borrowing capacity under the LBM Credit Agreement.

The LBM Credit Agreement contains several affirmative covenants including prompt payment of liabilities and taxes; maintenance of insurance, properties, and licenses; and compliance with laws. The LBM Credit Agreement also contains several negative covenants including restricting the incurrence of certain additional debt; prohibiting future liens (other than permitted liens); prohibiting investment in third parties; limiting the ability to pay dividends; limiting mergers, acquisitions, and dispositions; and limiting the sale of certain property and equipment of the Loan Parties. The LBM Credit Agreement does not contain any financial covenants. The LBM Credit Agreement also contains events of default, including, but not limited to, cross-default to certain other debt, breaches of representations and warranties, change of control events and breaches of covenants.

LBM was determined to be a related party based on common control by S. Kent Rockwell, who was the Executive Chairman of the Company at the time the Company entered into the LBM Credit Agreement and effective June 20, 2018, became the Chairman and Chief Executive Officer of the Company. Accordingly, the Company does not consider the LBM Credit Agreement indicative of a fair market value lending. Prior to execution, the LBM Credit Agreement was subject to review and approval by a sub-committee of independent members of the Board of Directors of the Company (which included each of the members of the Audit Committee of the Board of Directors). At the time of execution of the LBM Credit Agreement, the $15,000 in available loan proceeds were deposited into an escrow account with an unrelated, third party financial institution pursuant to a separate Escrow Agreement by and among the parties. Loan proceeds held in escrow are available to the Company upon its submission to the escrow agent of a loan request. Such proceeds will not be available to LBM until payment in-full of the obligations under the LBM Credit Agreement and termination of the LBM Credit Agreement. Payments of principal and other obligations will be made to the escrow agent, while interest payments will be made directly to LBM. Provided there exists no potential default or event of default, the LBM Credit Agreement and Escrow Agreement prohibit any acceleration of repayment of any amount outstanding under the LBM Credit Agreement and prohibit termination of the LBM Credit Agreement or withdrawal from escrow of any unused portion of the LBM Credit Agreement.

There were no borrowings by the Company under the LBM Credit Agreement from March 12, 2018 (inception) through June 30, 2018.

The Company incurred approximately $264 in debt issuance costs associated with the LBM Credit Agreement (including the aforementioned up front commitment fee paid at closing to LBM). During the three and six months ended June 30, 2018, the Company recorded interest expense relating to the LBM Credit Agreement of approximately $49 and $59, respectively. Included in interest expense for the three and six months ended June 30, 2018 was approximately $21 and $25, respectively, associated with amortization of debt issuance costs (resulting in approximately $239 in remaining debt issuance costs at June 30, 2018, of which $88 was included in prepaid expenses and other current assets and $151 was included in other noncurrent assets in the accompanying condensed consolidated balance sheet). Included in interest expense for the three and six months ended June 30, 2018 was approximately $28 and $34, respectively, associated with the commitment fee on the unused portion of the revolving credit facility, of which at June 30, 2018 approximately $9 was included in accounts payable in the accompanying condensed consolidated balance sheet. Amounts payable to LBM at June 30, 2018 were settled by the Company in July 2018.

Note 12. Income Taxes

The provision for income taxes for the three months ended June 30, 2018 and 2017 was approximately $18 and $9, respectively. The provision for income taxes for the six months ended June 30, 2018 and 2017 was approximately $35 and $9, respectively. The Company has completed a discrete period computation of its provision for income taxes for each of the periods presented. The discrete period computation was required as a result of jurisdictions with losses before income taxes for which no tax benefit can be recognized and an inability to generate reliable estimates for results in certain jurisdictions as a result of inconsistencies in generating net operating profits (losses) in those jurisdictions.

The effective tax rate for the three months ended June 30, 2018 and 2017 was 0.2% (provision on a loss) and 0.1% (provision on a loss), respectively. The effective tax rate for the six months ended June 30, 2018 and 2017 was 0.2% (provision on a loss) and 0.1% (provision on a loss), respectively. The effective tax rate differs from the United States federal statutory rate of 21.0% (2018) and 34.0% (2017) for each of the periods presented primarily due to net changes in valuation allowances for the periods.

In December 2017, the Tax Cuts and Jobs Act (the "Tax Act") was enacted into law. The Tax Act reduces the corporate income tax rate from 34% to 21% and generally modifies certain United States income tax deductions and the United States taxation of certain foreign earnings, among other changes. The Company is required to recognize the effect of tax law changes in the period of enactment. As a result of the Tax Act, the Company re-measured its United States deferred tax assets and liabilities as well as its valuation allowance against its net United States deferred tax assets at December 31, 2017. In December 2017, the SEC staff issued Staff Accounting Bulletin No. 118: Income Tax Accounting Implications of the 2017 Tax Cuts and Jobs Act ("SAB 118"), which allows the Company to record provisional amounts during a measurement period not to extend beyond one year of the enactment date. As ongoing guidance and accounting interpretations are expected over the next year, the Company considers its accounting of the deferred tax re-measurements and other items to be incomplete due to the forthcoming guidance and its ongoing analysis of final December 31, 2017 data and tax positions. No provisional amounts have been recorded by the Company. The Company expects to complete its analysis within the measurement period in accordance with SAB 118.

The Company has provided a valuation allowance for its net deferred tax assets as a result of the Company not generating consistent net operating profits in jurisdictions in which it operates. As such, any benefit from deferred taxes in any of the periods presented has been fully offset by changes in the valuation allowance for net deferred tax assets. The Company continues to assess its future taxable income by jurisdiction based on recent historical operating results, the expected timing of reversal of temporary differences, various tax planning strategies that the Company may be able to enact in future periods, the impact of potential operating changes on the business and forecast results from operations in future periods based on available information at the end of each reporting period. To the extent that the Company is able to reach the conclusion that its net deferred tax assets are realizable based on any combination of the above factors in a single, or in multiple, taxing jurisdictions, a reversal of the related portion of the Company's existing valuation allowances may occur.

The Company has a liability for uncertain tax positions related to certain capitalized expenses and intercompany transactions. At June 30, 2018 and December 31, 2017, the liability for uncertain tax positions was approximately $837 and $858, respectively, and was included in accrued expenses and other current liabilities in the accompanying condensed consolidated balance sheet. At June 30, 2018 and December 31, 2017, the Company had an additional liability for uncertain tax positions related to its ExOne GmbH (Germany) subsidiary of approximately $345 and $323, respectively, which were fully offset against net operating loss carryforwards. At June 30, 2018 and December 31, 2017, the Company had an additional liability for uncertain tax positions related to its ExOne KK (Japan) subsidiary of approximately $689 and $594, respectively, which were fully offset against net operating loss carryforwards.

At June 30, 2018, the Company's ExOne GmbH (2010-2013) and ExOne Property GmbH (2013) subsidiaries were under examination by local taxing authorities. The Company is unable to reasonably predict an outcome related to this examination, the result of which may be material in a future period to the financial position, results from operations and cash flows of the Company.

Note 13. Equity-Based Compensation

On January 24, 2013, the Board of Directors of the Company adopted the 2013 Equity Incentive Plan (the “Plan”). In connection with the adoption of the Plan, 500,000 shares of common stock were reserved for issuance pursuant to the Plan, with automatic increases in such reserve available each year annually on January 1 from 2014 through 2023 equal to the lesser of 3.0% of the total outstanding shares of common stock as of December 31 of the immediately preceding year or, a number of shares of common stock determined by the Board of Directors, provided that the maximum number of shares authorized under the Plan will not exceed 1,992,241 shares, subject to certain adjustments. The maximum number of shares of common stock are currently reserved for issuance under the Plan.

Stock options and restricted stock issued by the Company under the Plan are generally subject to service conditions resulting in annual vesting on the anniversary of the date of grant over a period typically ranging between one and three years. Certain stock options and restricted stock issued by the Company under the Plan vest immediately upon issuance. Stock options issued by the Company under the Plan have contractual lives which expire over a period typically ranging between five and ten years from the date of grant subject to continued service to the Company by the participant.

On February 7, 2018, the Compensation Committee of the Board of Directors of the Company adopted the 2018 Annual Incentive Program (the “Program”) as a subplan under the Plan. The Program provides an opportunity for performance-based compensation to senior executive officers of the Company, among others. The target annual incentive for each Program participant is expressed as a percentage of base salary and is conditioned on the achievement of certain financial goals (as approved by the Compensation Committee of the Board of Directors) or a combination of financial and non-financial goals. The Compensation Committee of the Board of Directors retains negative discretion over amounts payable under the Program. For 2018, the total target amount payable under the Program is approximately $1,423, with certain amounts to be settled with participants in cash, equity or a combination thereof. During the three and six months ended June 30, 2018, total compensation expense associated with the Program was approximately $163 and $305, respectively, split between cost of sales ($24 and $45, respectively), research and development ($47 and $90, respectively) and selling general and administrative expenses ($92 and $170, respectively) in the accompanying condensed statement of consolidated operations and comprehensive loss, of which approximately $132 is expected to be settled in equity by the Company.

The following table summarizes the total equity-based compensation (benefit) expense recognized by the Company:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
Equity-based compensation (benefit) expense recognized:				
Stock options	$(175)	$133	$28	$476
Restricted stock	100	141	206	359
Other[(a)]	70	—	140	—
Total equity-based compensation expense before income taxes	(5)	274	374	835
Benefit for income taxes[(b)]	—	—	—	—
Total equity-based compensation expense net of income taxes	$(5)	$274	$374	$835

(a) Other represents expense associated with the Program and other employee contractual amounts to be settled in equity.
(b) The benefit for income taxes from equity-based compensation for each of the periods presented has been determined to be $0 based on valuation allowances against net deferred tax assets.

At June 30, 2018, total future compensation expense related to unvested awards yet to be recognized by the Company was approximately $228 for stock options and $284 for restricted stock. Total future compensation expense related to unvested awards yet to be recognized by the Company is expected to be recognized over a weighted-average remaining vesting period of approximately 1.2 years.

During the six months ended June 30, 2018, the fair value of stock options granted was estimated on the date of grant using the Black-Scholes option pricing model with the following assumptions:

	March 16, 2018
Weighted average fair value per stock option	$3.77
Volatility	62.58%
Average risk-free interest rate	2.45%
Dividend yield	0.00%
Expected term (years)	3.3

During the six months ended June 30, 2017, the fair value of stock options granted was estimated on the date of grant using the Black-Scholes option pricing model with the following assumptions:

February 10,

	2017
Weighted average fair value per stock option	$5.46 - $5.75
Volatility	62.89% - 63.75%
Average risk-free interest rate	1.89% - 1.94%
Dividend yield	0.00%
Expected term (years)	5.0 - 5.5

For certain stock option awards, volatility is estimated based on the historical volatility of the Company when the expected term of the award is less than the period for which the Company has been publicly traded. For certain stock option awards, volatility is estimated based on the historical volatilities of certain peer group companies when the expected term of the award exceeds the period for which the Company has been publicly traded. The average risk-free rate is based on a weighted average yield curve of risk-free interest rates consistent with the expected term of the awards. Expected dividend yield is based on historical dividend data as well as future expectations. Expected term is calculated using the simplified method as the Company does not have sufficient historical exercise experience upon which to base an estimate.

The activity for stock options was as follows:

	Six Months Ended June 30,					
	2018			2017		
	Number of Options	Weighted Average Exercise Price	Weighted Average Grant Date Fair Value	Number of Options	Weighted Average Exercise Price	Weighted Average Grant Date Fair Value
Outstanding at beginning of period	674,470	$ 11.58	$ 6.41	314,303	$ 15.62	$ 9.38
Stock options granted	24,000	$ 8.36	$ 3.77	44,000	$ 10.10	$ 5.51
Stock options exercised	—	$ —	$ —	—	$ —	$ —
Stock options forfeited	(133,835)	$ 9.44	$ 5.15	(500)	$ 15.74	$ 9.60
Stock options expired	(28,000)	$ 10.03	$ 5.19	(6,666)	$ 17.43	$ 10.67
Outstanding at end of period	536,635	$ 12.05	$ 6.68	351,137		