

ExOne Co  
Form 10-K  
March 29, 2013  
Table of Contents

**UNITED STATES**  
**SECURITIES AND EXCHANGE COMMISSION**  
**WASHINGTON, DC 20549**

**FORM 10-K**

(Mark One)

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

**For the fiscal year ended December 31, 2012**

**Or**

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

**For the transition period from                      to**

**Commission file number 001-35806**

**The ExOne Company**

Edgar Filing: ExOne Co - Form 10-K

(Exact Name of Registrant as Specified in its Charter)

**Delaware**  
(State or Other Jurisdiction of  
Incorporation or Organization)  
**46-1684608**  
(I.R.S. Employer  
Identification No.)  
**127 Industry Boulevard North Huntingdon, Pittsburgh, PA 15642** (Address of Principal Executive Offices) (Zip Code)

(724) 863-9663 (Registrant's telephone number, including area code)

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

Title of Each Class	Name of Each Exchange On Which Registered
Common Stock, par value \$0.01 per share	The NASDAQ Global Select Market
Securities registered pursuant to Section 12(g) of the Act: None	

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes  No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Securities Act. Yes  No

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 if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of large accelerated filer, accelerated filer and smaller reporting 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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Securities Exchange Act of 1934). Yes  No

The aggregate market value of common stock held by non-affiliates for the last business day of the registrant's most recently completed second fiscal quarter is not applicable.

Edgar Filing: ExOne Co - Form 10-K

As of March 15, 2013, 13,281,608 shares of common stock, par value \$0.01 were outstanding.

**Table of Contents**

Our principal executive offices are located at 127 Industry Boulevard, North Huntingdon, Pennsylvania 15642 and our telephone number is (724) 863-9663. Our website address is <http://www.exone.com>. The information on our website is not part of this Form 10-K.

**Available Information**

Our website address is <http://www.exone.com>. Information contained on our website is not incorporated by reference into this Form 10-K unless expressly noted. We file reports with the Securities and Exchange Commission (the "SEC"), which we make available on our website free of charge at <http://www.exone.com/financials.cfm>. These reports include quarterly reports on Form 10-Q and current reports on Form 8-K, each of which is provided on our website as soon as reasonably practicable after we electronically file such materials with or furnish them to the SEC. We also make, or will make, available through our website other reports filed with or furnished to the SEC under the Exchange Act, including our Proxy Statements and reports filed by officers and directors under Section 16(a) of that Act. You can also read and copy any materials we file with the SEC at the SEC's Public Reference Room at 100 F Street, N.E., Washington, DC 20549. You can obtain additional information about the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. In addition; the SEC maintains a website (<http://www.sec.gov>) that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC, including us.

**Table of Contents****TABLE OF CONTENTS**

<u>Glossary of Defined Terms and Abbreviations</u>	1
<u>Explanatory Note</u>	1
<u>Implications of Being an Emerging Growth Company</u>	2
<u>Trademarks, Service Marks, and Trade Names</u>	2
<u>Cautionary Statements Regarding Forward Looking Statements</u>	3
<b><u>PART I</u></b>	4
<b>Item 1. <u>Business</u></b>	4
<b>Item 1A. <u>Risk Factors</u></b>	15
<b>Item 1B. <u>Unresolved Staff Comments</u></b>	26
<b>Item 2. <u>Properties</u></b>	27
<b>Item 3. <u>Legal Proceedings</u></b>	27
<b>Item 4. <u>Mine Safety Disclosures</u></b>	27
<b><u>PART II</u></b>	27
<b>Item 5. <u>Unregistered Sales of Equity Securities and Use of Proceeds</u></b>	27
<b><u>Market for Registrant's Common Equity, Related Stockholder Matters, and Issuer Purchases of Equity Securities</u></b>	29
<b>Item 6. <u>Selected Financial Data</u></b>	30
<b>Item 7. <u>Management's Discussion and Analysis of Financial Condition and Results of Operations</u></b>	31
<b>Item 7A. <u>Quantitative and Qualitative Disclosures about Market Risk</u></b>	48
<b>Item 8. <u>Financial Statements and Supplementary Data</u></b>	49
<b>Item 9. <u>Changes in and Disagreements with Accountants on Accounting and Financial Disclosure</u></b>	76
<b>Item 9A. <u>Controls and Procedures</u></b>	76
<b>Item 9B. <u>Other Information</u></b>	77
<b><u>PART III</u></b>	78
<b>Item 10. <u>Directors, Executive Officers, and Corporate Governance</u></b>	78
<b>Item 11. <u>Executive Compensation</u></b>	82
<b>Item 12. <u>Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters</u></b>	85
<b>Item 13. <u>Certain Relationships and Related Transactions, and Director Independence</u></b>	86
<b>Item 14. <u>Principal Accountant Fees and Services</u></b>	88
<b><u>PART IV</u></b>	88
<b>Item 15. <u>Exhibits and Financial Statement Schedules</u></b>	88

**Table of Contents**

**GLOSSARY OF DEFINED TERMS AND ABBREVIATIONS**

**3D** means three dimensional.

**AM** means additive manufacturing.

**Amended MIT License Agreement** means the amendment to the Amended and Restated Exclusive Patent License Agreement by and between MIT and ExOne, dated January 22, 2013.

**Company** means The ExOne Company.

**EXMAL** means ExOne Materials Application Laboratory.

**EXONE AMERICAS** means ExOne Americas LLC, a Delaware limited liability company and wholly-owned subsidiary of the Company. The Company is the sole member of ExOne Americas, formally known as ProMetal.

**EXTEC** means ExOne Training and Education Center.

**IPO** means initial public offering.

**LONE STAR** means Lone Star Metal Fabrication, LLC.

**MAJORITY MEMBER** means affiliates of S. Kent Rockwell, our Chairman and Chief Executive Officer, who is the indirect, sole shareholder of RHI and RFP. Each of RHI and RFP have provided funding to us.

**MIT** means Massachusetts Institute of Technology.

**Plan** means the 2013 Equity Incentive Plan, adopted by the Board of Directors on January 24, 2013.

**ProMetal** means ProMetal RCT, LLC, a Delaware limited liability company and wholly-owned subsidiary of the Company. The Company is the sole member of ProMetal. ProMetal's name was changed to ExOne Americas LLC on March 28, 2013.

**PSCs** means Production Service Centers.

**REORGANIZATION** means on January 1, 2013, 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.

**RFP** mean Rockwell Forest Products, Inc.

**RHI** means Rockwell Holdings, Inc.

**SELLING STOCKHOLDER** means RHI.

**TMF** means Troy Metal Fabricating, LLC.

**TRUST** means the S. Kent Rockwell 1997 Irrevocable Trust.

**VARIABLE INTEREST ENTITIES** means Lone Star and TMF.

**EXPLANATORY NOTE**

**Reorganization and IPO.** On January 1, 2013, 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. As a result of the Reorganization, The Ex One Company,

## Edgar Filing: ExOne Co - Form 10-K

LLC became the Company, a Delaware corporation, the common and preferred interest holders of The Ex One Company, LLC became holders of common stock and preferred stock, respectively, of the Company and the subsidiaries of The Ex One Company, LLC became the subsidiaries of the Company. The preferred stock of the Company was converted into common stock on a 9.5 to 1 basis (1,998,275 shares of common stock) immediately prior to the IPO.

---

## **Table of Contents**

On February 6, 2013, the Company's registration statement on Form S-1 (File No 333-185933) was declared effective for the Company's IPO, pursuant to which the Company registered the offering and sale of 6,095,000 shares of our common stock at a public offering price of \$18.00 per share for an aggregate offering price of \$109.7 million and the offering has closed. The managing underwriter was FBR Capital Markets & Co. and the co-managers were BB&T Capital Markets and Stephens Inc.

As a result of the IPO, the Company received net proceeds on February 12, 2013 of approximately \$92.0 million, after deducting underwriting discounts and commissions.

Except as disclosed in the accompanying Form 10-K, the consolidated financial statements and selected historical consolidated financial data and other financial information included in this Form 10-K are those of The Ex One Company, LLC and its subsidiaries and our Variable Interest Entities, TMF and Lone Star, and do not give effect to the Reorganization. As used in this Form 10-K, unless the context otherwise requires or indicates, the terms ExOne, our company, we, our, ours, and us refer to The ExOne Company and its subsidiaries. Except as disclosed in the accompanying Form 10-K, the consolidated financial statements and selected historical consolidated financial data and other financial information included in this Form 10-K, references to the majority member refer to affiliates of S. Kent Rockwell, our Chairman and Chief Executive Officer, who is the indirect, sole shareholder of RHI and RFP. Each of RHI and RFP have provided funding to us. See **Item 13. Certain Relationships and Related Transactions, and Director Independence** in this Annual Report on Form 10-K.

### **IMPLICATIONS OF BEING AN EMERGING GROWTH COMPANY.**

As a company with less than \$1.0 billion in revenue during our last fiscal year, we qualify as an emerging growth company as defined in the Jumpstart our Business Startups Act of 2012, or the JOBS Act. An emerging growth company 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 emerging growth company:

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, or the Sarbanes-Oxley Act;

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 take advantage of these provisions for up to five years or such earlier time that we are no longer an emerging growth company. We would cease to be an emerging growth company if we have more than \$1.0 billion in annual revenues, 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. We may choose to take advantage of some but not all of these reduced burdens.

### **TRADEMARKS, SERVICE MARKS, AND TRADE NAMES**

This Form 10-K includes our trademarks, service marks, and trade names, such as EXONE, our logo, and ExOne, which are protected under applicable intellectual property laws and are the property of The ExOne Company and our subsidiaries. This Form 10-K also contains trademarks, service marks, and trade names of other companies, which are the property of their respective owners. Solely for convenience, marks and trade names referred to in this Form 10-K may appear without the ® or TM symbols, but such references are not intended to



**Table of Contents**

indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or the right of the applicable licensor to these marks and trade names. Third-party marks and trade names used herein are for informational purposes only and in no way constitute or are intended to be a commercial use of such names and marks. The use of such third-party names and marks in no way constitutes or should be construed to be an approval, endorsement or sponsorship of us, or our products or services, by the owners of such third-party names and marks.

**CAUTIONARY STATEMENT CONCERNING FORWARD LOOKING STATEMENTS**

This Form 10-K contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended.

Forward-looking statements are subject to risks, uncertainties and assumptions and are identified by words such as expects, estimates, projects, typically anticipates believes, appears, could, plan, and other similar words. Such statements include, but are not limited to, statements concerning future revenue and earnings, involve known and unknown risks, uncertainties and other factors that could cause the actual results of the Company to differ materially from the results expressed or implied by such statements, which include our ability to qualify more materials in which we can print; the availability of skilled personnel; our strategy, including the expansion and growth of our operations; the impact of loss of key management; our plans regarding increased international operations in additional international locations; the adequacy of sources of liquidity; expectations regarding demand for our industrial products, operating revenues, operating and maintenance expenses, insurance expenses and deductibles, interest expenses, debt levels, and other matters with regard to outlook; demand for aerospace, automotive, energy and other industrial products; the impact of disruption of our manufacturing facilities or PSOs; liabilities under laws and regulations protecting the environment; the impact of governmental laws and regulations; operating hazards, war, terrorism and cancellation or unavailability of insurance coverage; the effect of litigation and contingencies; and the adequacy of our protection of our intellectual property, and other factors disclosed under Item 1A. Risk Factors and Item 7 Management's Discussion and Analysis of Financial Condition and Results of Operations included in this annual Report on Form 10-K. Because they are forward-looking, these statements should be evaluated in light of important risk factors and uncertainties.

Should one or more of these risks or uncertainties materialize, or should any of our underlying assumptions prove incorrect, actual results may vary materially from those currently anticipated. Except as required by law, we disclaim any obligation to update or publicly announce any revisions to any of the forward-looking statements contained in this Annual Report on Form 10-K.

---

**Table of Contents**

**PART I**

**Item 1. Business**

**The Company**

We are a global provider of 3D printing machines and printed products to industrial customers. Our business primarily consists of manufacturing and selling 3D printing machines and printing products to specifications for our customers using our in-house 3D printing machines. We offer pre-production collaboration and print products for customers through our PSCs, which are located in the United States, Germany and Japan. We build 3D printing machines at our facilities in the United States and Germany. We also supply the associated products, including consumables and replacement parts, and services, including training and technical support, necessary for purchasers of our machines to print products. We believe that our ability to print in a variety of industrial materials, as well as our industry-leading printing capacity (as measured by build box size and printhead speed), uniquely position us to serve the needs of industrial customers.

Our 3D printing machines use our technology, powdered materials, chemical binding agents and integrated software to print 3D products directly from computer models by repeatedly depositing very thin layers of powdered materials and selectively placing chemical binding agents to form the finished product. One of our key industry advantages is that our machines are able to print products in materials which are desired by industrial customers. Currently, our 3D printing machines are able to manufacture casting molds and cores from specialty silica sand, and ceramics, which are the traditional materials for these casting products. We are capable of printing in silica sand, ceramics, stainless steel, bronze, and glass, and we are in varying stages of qualifying additional industrial materials for printing, such as titanium, tungsten carbide, aluminum, and magnesium.

We believe that we are a leader in providing 3D printing machines, 3D printed products and related services to industrial customers in the aerospace, automotive, heavy equipment, energy/oil/gas and other industries.

Our business began as the advanced manufacturing business of Extrude Hone Corp., which manufactured its first 3D printing machine in 2003 using licensed technology developed by researchers at MIT. In 2005, our business assets were transferred into The Ex One Company, LLC, a Delaware limited liability company, when Extrude Hone Corp. was purchased by another company. In 2007, we were acquired by S. Kent Rockwell through his wholly-owned company RFP. On January 1, 2013, The Ex One Company, LLC was merged with and into a newly created Delaware corporation, which changed its name to The ExOne Company. The initial public offering of our common stock became effective on February 6, 2013. See the Explanatory Note contained in this Annual Report on Form 10-K for additional information regarding the history of the Company.

On March 27, 2013, our wholly-owned subsidiary, ExOne Americas, acquired certain assets, including property and equipment (principally land, buildings and machinery and equipment) held by our two Variable Interest Entities, TMF and Lone Star, and assumed all outstanding debt of such Variable Interest Entities, including certain related interest rate swap agreements. Lone Star is owned by RFP and TMF is owned by the S. Kent Rockwell Revocable Trust. S. Kent Rockwell, our chairman and Chief Executive Officer, is the trustee and beneficiary of the S. Kent Rockwell Revocable Trust, which is the 100% owner of Rockwell Venture Capital, Inc. which is the 100% owner of RFP. See **Item 13. Certain Relationships and Related Party Transactions, and Director Independence.**

Payment of approximately \$1.9 million was made to TMF and approximately \$0.2 million was made to Lone Star, including a return of capital to these entities, which are controlled by Mr. Rockwell, of approximately \$1.4 million. There was no gain or loss or goodwill generated as a result of this transaction. Simultaneous with the completion of this transaction, we also repaid all of the outstanding debt and settled the related interest rate swap agreements assumed from the Variable Interest Entities, resulting in a payment of approximately \$4.7 million.

## **Table of Contents**

### **The Additive Manufacturing Industry and 3D Printing**

3D printing is the most common type of an emerging manufacturing technology broadly referred to as additive manufacturing ( AM ). In general, AM is a term used to describe a manufacturing process that produces 3D objects directly from digital or computer models through the repeated deposit of very thin layers of material. 3D printing is the process of joining materials from a digital 3D model, usually layer by layer, to make objects using a printhead, nozzle or other printing technology. The terms AM and 3D printing are increasingly being used interchangeably as the media and marketplace have popularized the term 3D printing rather than AM, the industry term.

AM represents a transformational shift from traditional forms of manufacturing (e.g., machining or tooling) sometimes referred to as subtractive manufacturing. We believe that AM and 3D printing are poised to displace traditional manufacturing methodologies in a growing range of industrial applications. Our 3D printing process differs from other forms of 3D printing processes in that we use a chemical binding agent and focus on industrial products and materials.

### **ExOne and 3D Printing**

We provide 3D printing primarily to industrial customers and end-market users. We believe that we are an early entrant into the AM industrial products market and are one of the few providers of 3D printing solutions to industrial customers, including in the aerospace, automotive, heavy equipment and power fluid handling industries.

Our 3D printing technology was developed over 15 years ago by researchers at MIT. Our machines build or print products from Computer-aided designs ( CAD ) by depositing successive very thin layers of particles of materials such as silica sand or metal powder in a build box. A moveable printhead passes over each layer and deposits a chemical binding agent in the selected areas where the finished product will be materialized. Each layer can be unique.

Depending on the industrial material used in printing, printed products may need post-production processing. We generally use silica sand or foundry sand for casting, which requires no additional processing. Parts printed in other materials, such as glass or metals, need varying amounts of heat treating or other post-processing.

*Our Machines.* Our 3D printing machines consist of a build box that includes a machine platform and a computer processor controlling the printheads for applying layers of industrial materials and binding agents. We currently build our machines in both Germany and the United States. See **Item 1. Business** Our Machines and Machine Platforms. Our machines are used to produce molds for castings, products for end users and

---

## **Table of Contents**

prototypes. In some situations, we can make prototypes in metal rather than resin polymer, or make a part from a mold for the casting of a newly designed part which we then cast at a qualified foundry. As a result, the prototype can be made from the same material as the final production part, which allows more accurate testing of the prototype. We provide a broad spectrum of qualified materials for direct part production and are continuing to qualify additional materials for use in our printing process. See **Item 1. Business** Competitive Strengths Industrial Materials.

Our machines are mostly used to manufacture industrial products which are ordered in relatively low volumes, are highly complex, and have a high value to the customer. For example, the manufacture of an aircraft requires several complex parts, such as transmission housings (also known as gear-casings), which are needed in relatively low volume and which have a high performance value in the aircraft. The bulk of our machines are used to make complex sand molds, which are used to cast these kinds of parts for several industries, although in some cases we make the end part directly. We intend to expand the direct part production segment of our business as we grow. In addition, as our technologies advance, and our unit cost of production decreases, we believe we can increase the type and number of products that our 3D printing machines can manufacture in a cost-effective manner, expanding our addressable market.

*Post Processing.* After a part is 3D printed, the bound and unbound powder in the build box requires curing of the chemical binding agent. In the case of molds and cores, curing occurs at room temperature and the printed part is complete after the binder is cured. In the case of other materials, such as stainless steel, bronze, and metallic powders, the part needs to be sintered, or sintered and infiltrated. With sintering, the part is placed into a vacuum furnace in an inert atmosphere to sinter the bonded particles and form a strong bonded porous structure. The porous structure can be further infiltrated with an infiltrant to fill the voids. After the sintering and infiltration, the part can be polished and finished with a variety of standard industrial methods and coatings.

### **Customers and Sales**

#### *Educating Our Customers.*

Educating our customers and raising awareness in our target markets about the many uses and benefits of our 3D printing technology is an important part of our sales process. We believe that customers who experience the efficiency gains, decreased lead-time, increased design flexibility, and decreased cost potential of 3D printing, as compared to subtractive manufacturing, are more likely to purchase our machines and be repeat customers of our products. We educate our customers on the design freedom, speed, and other benefits of 3D printing by providing printing and design services and support through our growing number of PSCs. We also seek to expose key potential users to our products through our PSCs, installed machines at customers' locations, university programs, and sales and marketing efforts. See **Item 1. Business** Our Business Strategy.

#### *Production Service Centers.*

We have established a network of five PSCs in North Huntingdon, Pennsylvania; Troy, Michigan; Houston, Texas; Augsburg, Germany; and Kanagawa, Japan. Through our PSCs we provide sales and marketing and delivery of support and printing services to our customers. At our PSCs, our customers see our printing machines in operation and can evaluate their production capabilities before ordering a machine or a printed product. The PSCs are scalable and have a well-defined footprint that can be easily replicated to serve additional regional markets. As described below, placing our PSCs in strategic locations around the world is an important part of our business strategy. See **Item 1. Business** Our Business Strategy.

For all customers, we offer the following support and services through our PSCs:

*Pre-production Collaboration.* We provide pre-production collaboration services to both purchasers of our machines and to customers of products printed on our own machines through our PSCs. Our services include data capture using software that enables customers to translate their product vision into

---

## **Table of Contents**

a digital design format that can be used as an input to our 3D printing equipment. We help our customers successfully move from the design stage to the production stage, and help customers evaluate the optimal design and industrial materials for their production needs. For example, we worked with a customer to design and manufacture parts that eliminated significant weight from a helicopter, which was possible because of the precision of our AM process. Our machines are also able to deliver a replacement for a product broken by the customer rapidly or often immediately because we will already have the production computer file. Using subtractive manufacturing would take much longer.

**Consumables.** We provide customers with the inputs used in our 3D printing machines, including tools, printing media/industrial materials, and bonding agents.

**Training and Technical Support.** Our technicians train customers to use our machines through hands-on experience at our PSCs and provide field support to our customers, including design assistance, education on industrial materials, operations and printing training, instruction on cleaning, and maintenance and troubleshooting.

**Replacement Parts and Service.** For the first year after purchase of one of our machines, we provide complimentary service and support. Thereafter, we offer a variety of service and support plans.

### **Our Competitive Strengths**

We believe that our competitive strengths include:

**Volumetric Output Rate.** We believe that our 3D printing machines provide us the highest rate of volume output per hour among competing AM technologies. Because of our early entrance into the industrial market for AM and our investment in our core 3D printing technology, we have been able to improve the printhead speed and build box size of our machines. As a result, we have made strides in improving the output efficiency of our machines, as measured by volume output per unit of time. For example, the machine cost per cubic inch for our mid-size Flex machine is approximately 5% of the comparable machine cost of its predecessor, the R 2, assuming a constant 80% utilization rate and five-year useful life. With continued advances in our core 3D printing technologies, we believe that our cost of production will continue to decline, increasing our ability to compete with subtractive manufacturing processes, particularly for complex products, effectively expanding our addressable market.

**Printing Platform Size.** The size of the build box area and the platform upon which we construct a product is important to industrial customers, who may want to either make a high number of products per job run or make an industrial product that has large dimensions and is heavy in final form. Our 1,260-liter platform for our S Max machine is one of the largest commercially available 3D printing build platforms. We believe that our technology and experience give us the potential to develop even larger build platforms to meet the production demands of current and potential industrial customers. In addition, we have created machine platforms in four size ranges in order to cater to the varying demands of our customers. Our two largest platforms, the Max and Print machines, are differentiated from the machines of our competitors in their ability to print in an industrial size and scale. Our Lab size platform provides a small build box for lab work and experimentation.

**Industrial Material.** Currently, our 3D printing machines are able to manufacture casting molds and cores from specialty silica sand and ceramics, which are the traditional materials for these casting products. We are capable of printing in silica sand, ceramics, stainless steel, bronze, and glass, and we are in varying stages of qualifying additional industrial materials for printing, such as titanium, tungsten carbide, aluminum, and magnesium. There is significant demand for products made of these materials. Most AM companies, however, cannot print industrial products in these materials and focus instead on polymer applications.

**Chemical Binding.** We use liquid chemical binding agents during the printing process. We believe that our unique chemical binding agent technology can more readily achieve efficiency gains over time than



---

## Table of Contents

other AM technologies such as laser-fusing technologies. For instance, in order to increase the print speed of laser-based technologies, another expensive industrial laser must be added to the manufacturing process, raising the unit cost of production.

**International Presence.** Since our inception, we have structured our business to cater to major international markets. We have established one or more PSCs in each of North America, Europe, and Asia. Because many of our current or potential customers are global industrial companies, it is important that we have a presence in or near the areas where these companies have manufacturing facilities.

**Co-location of High Value Production.** Over the last few years, many U.S. industrial manufacturers have out-sourced parts supply or otherwise created long, relatively inflexible supply chains for their high-complexity, high-value parts. We believe that over the next few years, many of these companies will need to build these parts in the United States, near their main manufacturing facilities, in order to be competitive nationally and internationally. We believe we are well positioned to help these manufacturers co-locate the production of parts so as to optimize customers' supply chains.

### **Our Business Strategy**

The principal elements of our growth strategy include:

**Expand the Network of Production Service Centers.** Our PSCs provide a central location for customer collaboration and provide customers with a direct contact point to learn about our 3D printing technology, buy products printed by us, and purchase our machines. By the end of 2015, we plan to expand our PSC network from the current five locations to fifteen locations. Like our current PSCs, we plan to locate the additional PSCs in major industrial centers near existing and potential customers. While we may adjust the final locations based upon market considerations, our initial plan includes opening a new PSC in South America and on the west coast of the United States in the second half of 2013, and opening two additional locations in Asia and Western Europe in the first half of 2014.

**Qualify New Industrial Materials Printable In Our Systems.** Currently, our 3D printing machines are capable of printing in silica sand, ceramics, stainless steel, bronze, and glass, and we are in varying stages of qualifying additional industrial materials for printing, such as titanium, tungsten carbide, aluminum, and magnesium. By expanding into these other materials, we believe we can expand our market share and better serve our industrial customer base. We established EXMAL, which focuses on materials testing. We believe EXMAL will assist us in increasing the rate at which we are able to qualify new materials. EXMAL is led by our Chief Technology Officer, Rick Lucas, whose background includes experience in materials testing and certification. See **Item 10. Directors, Executive Officers, and Corporate Governance** in this Annual Report on Form 10-K.

**Increase the Efficiency of Our Machines to Expand the Addressable Market.** We intend to invest in further developing our machine technology so as to increase the volume output per unit time that our machines can produce. In 2011, we began selling a new second generation mid-sized platform, the S Print machine. In addition, we are marketing our new M Flex machine and expect to deliver our first unit in 2013. See **Item 1. Business - Our Machines & Machine Platforms** in this Annual Report on Form 10-K. In both cases, the new machines are designed to increase the volume output per hour over the machines that they will replace through advances in printhead speed and build box size. Achieving improved production speed and efficiency will expand our potential market for our machines and for products made in our PSCs.

**Focus Upon Customer Training and Education to Promote Awareness.** We will use our regional PSCs to educate our potential customers. In addition, we have supplied 3D printing equipment to more than 20 universities and research institutions, in hopes of expanding the base of future adopters of our technology. We established EXTEC in our North Huntingdon headquarters. At EXTEC, technicians will guide our current and prospective customers in the optimal use of 3D printing and customers will

---

## Table of Contents

gain digital access to our 3D printing knowledge database as it continues to evolve. We make EXTEC accessible to universities, individual customers, employees/trainees, designers, engineers, and others interested in 3D printing. We will continue to educate the marketplace about the advantages of 3D printing.

**Achieve Revenue Balance and Diversification.** Over the long-term, our goal is to balance revenue between machine sales and PSC production, service contracts, and consumables. Machine sales tend to be seasonal, less predictable and generally more heavily impacted by the macroeconomic cycle, as compared to PSC production, service contracts, and consumables. We will focus on machine sales during up-swings in the economy, and focus on the sales of our other products and services during periods of decline in industrial capital investment. In addition, as we sell more machines, the machine sales portion of our business will be supplemented by related sales of service, replacement parts, and consumables. To avoid being overly dependent on economic conditions in one part of the world, we intend to develop our customer base so that our revenues are balanced across the Americas, Europe, and Asia. As overall revenues increase, maintaining this balance will largely be achieved by targeting specific customers and industries for machine sales and by establishing PSCs in each of our key regions.

### **Our Machines and Machine Platforms**

We produce a variety of machines in order to enable designers and engineers to rapidly, efficiently, and cost-effectively design and produce industrial prototypes and production parts. The models of our machines differ based on the materials in which they print, build box size, and production speeds, but all utilize our advanced technology and designs. The variation in the models of machines that we produce allows for flexibility of use based on the needs of our customers.

We have created machine platforms in four size ranges in order to cater to the job sizes at the machine prices that the market demands. Our two largest platforms, the Max size platform and the Print size platform, are differentiated from those of our competitors in their ability to print on an industrial size and scale.

We further differentiate our model name by a prefix of either M or S before the platform name. The S prefix indicates that the machine is largely used for printing molds and cores for castings. The M prefix indicates that the machine is largely used for the direct printing of objects. The largest platform, the Max size, is generally used for castings, and therefore the current model in this platform is the S Max. The Print size platform is broadly applicable in a variety of industrial uses, and therefore, we have introduced the platform with both M Print and S Print machines. We anticipate offering the new Flex platform in an M Flex machine. The Lab size platform is primarily sold and used as the M Lab machine.

Our machines come in a variety of sizes and are named for the size of print job they are able to produce. In descending order by capacity are our Max, Print, Flex, and Lab machines.

**S Max.** The S Max machine, the largest of our machines, has a build box size of 1.8 meters x 1 meter x .7 meters and sells for approximately \$1.4 million (based upon average model options and exchange rates). The total time to produce an entire build box on the S Max is approximately 24 hours. We introduced the S Max machine in 2010 to provide improved size and speed over the predecessor model, the S 15. Our PSCs each generally have at least one S Max or S 15 machine installed on-site, which provides our customers with the ability to print casting molds and cores on an industrial scale.

**S Print/M Print.** Our Print machine platform has been completely redesigned and is our current mid-sized machine platform. The S Print machine provides the same cutting edge technology available in the S Max platform, with an average price point of \$800,000 (based upon average model options and exchange



---

## **Table of Contents**

rates). The S Print machine is used by customers interested in printing objects made from silica sand and ceramics, with a particular focus on industrial applications for smaller casting cores that are often required for the aerospace industry, especially in hydraulic applications. The build box size permits the use of exotic and expensive print materials, such as ceramics, that are required for high heat/high strength applications. The S Print machine build box is approximately 125 liters. This same basic platform is used in the M Print, which is used by customers interested in direct printing of objects made from metals and glass. The average price point of the M Print is \$900,000 (based upon average model options and exchange rates). We expect to start installing S Print machines in each PSC to complement the S Max machines currently in use in the first half of 2013.

**M Flex.** We are actively marketing our Flex machines and are quoting deliveries for the third quarter of 2013. We expect the M Flex to satisfy the demand for a large range of industrial customers that are interested in directly printing metals, ceramic and glass products. The average price point of \$350,000 (based upon average model options and exchange rates) is designed to satisfy demand from industrial production houses. We have developed a collaborative process for assisting the users in production implementation through the EXTEC and EXMAL organizational efforts.

**M Lab.** The M Lab is the smallest of our build platforms. At an average price point of \$100,000 (based upon average model options and exchange rates), it is primarily used as a development platform, as well as a teaching tool in an engineering environment. There are over 20 M Lab machines installed at universities and research institutions in the United States and Europe.

### **Laser Micromachining**

We also manufacture the ExMicro Orion ( Orion ) machine, which is used for both conventional and exotic materials. Micromachining is an integrated process that combines the use of a short pulse laser with a patented trepanning (which is a type of laser drilling) head to capture and manipulate a laser beam. By controlling and manipulating the beam, the Orion machine, which we build in the United States, can remove microns of material from precise locations with thousands of pulses per second.

The beam manipulation capability allows us to shape design features like tapers, making the Orion machine an effective tool for production of automotive and aerospace components. The Orion machine sells for approximately \$1.0 million, and we shipped the first of these machines to a production customer in the fourth quarter of 2012.

### **Marketing and Sales**

We market our products under the ExOne brand name in our three major geographic regions – the Americas, Europe and Asia. Our sales are made primarily by ten full-time equivalent, in-house sales people. Our sales force is augmented, in certain territories, by representatives with specific industry or territorial expertise. Even where we are supported by a representative, all of our product and service offerings provided by our PSCs are sold directly to customers by us.

We believe that our direct selling relationship helps to create one of the building blocks for our business – the creation of true collaboration between us and industrial customers who are interested in 3D printing. Increasingly, industrial producers are considering shifting from subtractive manufacturing techniques to 3D printing. Our marketing efforts include educating potential customers about 3D printing technology through collaboration starting with pre-production services and continuing with production and technical support at our PSCs. Currently, our sales people are based in North Huntingdon, Pennsylvania; Troy, Michigan; Houston, Texas; Augsburg, Germany; and Kanagawa, Japan (near Tokyo).

## **Table of Contents**

### **Our Customers**

Our customers are located primarily in the Americas, Europe, and Asia. We are a party to non-disclosure agreements with many of our customers, and therefore, are often prohibited from disclosing many of our customers' identities. Our customers include several Fortune 500 companies that are leaders in their respective markets. The primary markets that we currently serve are:

aerospace;

automotive;

heavy equipment; and

energy/oil/gas.

Sales of 3D printing machines are low volume but generate significant revenue. Timing of customer purchases is dependent upon the customer's capital budgeting cycle, which may vary from period to period. Sales of 3D printed parts and consumables tend to be from repeat customers that may utilize the capability of our PSCs for three months or longer. Although revenue from 3D printing machines is greater than 40% of our total revenue, the nature of the revenue described above does not leave us dependent upon a single or a limited number of customers. Rather, the timing of the sales can have a material effect on period to period financial results. We had three customers in 2010 (Intek, I Metal, and BMW) and one customer in 2011 (Ryoyu Systems) that represented ten percent or more of our revenue. For 2012, no customer represented ten percent or more of our revenue.

### **Services and Warranty**

We have fully trained service technicians to perform machine installations in the Americas, Europe, and Asia. We provide an industry standard one-year warranty on installed machines. Customers can purchase additional service contracts for maintenance and service. Finally, we sell spare parts which we maintain in stock in worldwide, to assist in providing service expeditiously to our customers.

The Company's terms of sale generally require payment within 30 to 60 days after shipment of a product, although the Company also recognizes longer payment periods are customary in some countries where it transacts business.

### **Suppliers**

Our largest suppliers in 2012, based upon dollar volume of purchases, were Bauer GmbH & Co KG, Bosch Rexroth AG and Batz, Burgel GmbH & Co KG, Fuji Film Dimatix, T&S Materials, RPMC Lasers and Intek Systems.

We buy our industrial materials from several suppliers and, except as set forth below, the loss of any one of which would not materially adversely affect our business. We currently have a single supplier of printheads for our 3D printing machines. While we believe that our printheads supplier is replaceable, in the event of the loss of that supplier, we could experience delays and interruptions that might adversely affect the financial performance of our business. Additionally, we obtain certain preproduction services through design and data capture providers, and certain post-production services through vendors with whom we have existing and good relationships. The loss of any one of these providers or vendors would not materially adversely affect our business.

### **Research and Development**

We spent approximately \$1.9 million, \$1.5 million and \$1.2 million on research and development during 2012, 2011 and 2010, respectively. We expect to continue to invest significantly in research and development in the future.



---

## **Table of Contents**

A significant portion of our research and development expenditures have been focused upon the:

chemistry of binder formulation;

mechanics of droplet flight into beds of powder;

metallurgy of thermally processing metals that are printed through AM;

mechanics of spreading powders in a job box;

transfer of digital data through a series of software links, to drive a printhead; and

synchronizing all of the above to print ever-increasing volumes of material per unit time.

### **Intellectual Property**

**Patents and MIT Licenses.** Our technology is covered by a variety of patents or licenses for use of patents. We are the worldwide licensee of certain patents of MIT for certain AM printing processes (the MIT Patents), with exclusive rights to practice the patents in certain fields including the application of the printing processes to metals (with sublicensing rights), and non-exclusive rights to practice the patents in certain fields including the application of the printing processes to certain non-metals (without sublicensing rights). Additionally, we hold patents solely or as majority owner as a result of our own technological developments and from the acquisition of Prometal RCT GmbH (subsequently renamed ExOne GmbH). Our patents are issued in the United States and in various foreign jurisdictions, including Japan and Germany. As a result of our commitment to research and development, we also hold process patents and have applied for other patents for equipment, processes, materials and 3D printing applications. The expiration dates of our patents range from 2013 to 2029. We believe that the expiration of patents in the near term will not impact our business.

Certain of the MIT Patents under which we are licensed will expire over the next 24 months. We believe that the expiration of these licenses will not impact our business, however the expiration may allow our competitors that were previously prevented from doing so to utilize binder jetting 3D printing. However, we have developed know-how and trade secrets relative to our 3D printing technology and believe that our early entrance into the industrial market provides us with a timing and experience advantage. Through our investment in our technology, we have been able to qualify industrial materials for use in our 3D printing machines, and we intend to continue such efforts. In addition, we have taken steps to protect much of our technology as a trade secret. Given the significant steps that we have taken to establish our experience in AM for industrial applications, as well as our ongoing commitment to research and development, we intend to maintain our preeminent position in the AM industry market.

We entered into an Amended and Restated Exclusive Patent License Agreement with MIT in June 2011. The terms of the agreement require that we remit both license fees and royalties to MIT based upon worldwide revenue of licensed products, processes and consumables. The term of the agreement commenced on January 1, 2011, and remains in force until the expiration or abandonment of all issued patent rights.

Effective January 22, 2013, we entered into the Amended MIT License Agreement with MIT related to the MIT Patents. The Amended MIT License Agreement provides, among other things, that we will pay MIT an annual fee of \$100,000 for each of the years 2011 through 2016, in satisfaction of a license maintenance fee for such periods. In addition, in 2013, we made a one-time payment to MIT of \$200,000 in satisfaction of all remaining royalty payments for licensed products, processes or consumables sold either before or after such amendment. See Note 13 of the Notes to the Consolidated Financial Statements in this Annual Report on Form 10-K for additional information.

**Trademarks.** We have registered ExOne as a trademark in the United States. We have filed trademark applications for EX ONE, a stylized X1 and the phrase Digital Part Materialization in the United States, Canada, Europe, Japan, China, Korea and Brazil.



## **Table of Contents**

**Trade Secrets.** The development of our products, processes and materials has involved a considerable amount of experience, manufacturing and processing know-how and research and development techniques that are not easily duplicated. We protect this knowledge as a trade secret through the confidentiality and nondisclosure agreements which all employees, customers and consultants are required to sign at the time they are employed or engaged by us. Additional information related to the risks associated with our intellectual property rights are described within **Item 1A Risk Factors** of this Annual Report on Form 10-K.

## **Competition**

Other companies are active in the market for 3D printing products and services. These companies use a variety of AM technologies, including:

direct metal deposition;

direct metal laser sintering;

electron beam melting;

fused deposition modeling;

laser consolidation;

laser sintering;

multi-jet modeling;

polyjet;

selective laser melting;

selective laser sintering; and

stereolithography.

Some of the companies that have developed and employ one or more AM technologies include: 3D Systems Corporation (including the recently acquired Z Corporation), Stratasys Inc. (including the recently acquired Solidscape, Inc. and Objet Ltd.), EOS Optronics GmbH, EnvisionTEC GmbH, and Solid Model Ltd.

Some of these processes and companies compete with some of the products and services that we provide. Despite the challenging competitive landscape, we believe that we are the only AM printing solutions provider that focuses primarily on industrial applications on a production scale. Our competitive advantages, including the size of our build platforms, the speed of our printing heads, the variety of materials used by industrial manufacturers in which we can print, the industry qualification of many of the materials we print in, our robust market capabilities, and our suite of machine system families offering scale and flexibility, also serve to differentiate us from the other competitors in the AM market.

## Edgar Filing: ExOne Co - Form 10-K

We also compete with established subtractive manufacturers in the industrial products market. These companies often provide large-scale, highly capitalized facilities that are designed or built to fill specific production purposes, usually mass production. However, we believe that we are well positioned to expand our share of the industrial products market from these manufacturers as AM gains recognition. As our technologies improve and our unit cost of production decreases, we expect to be able to compete with subtractive manufacturing on a wide range of products, thereby expanding our addressable market.

### **Seasonality**

Purchases of our 3D printing machines often follow a seasonal pattern owing to the capital budgeting cycles of our customers. Generally, machine sales are higher in our third and fourth quarters than in our first and second quarters.

**Table of Contents**

**Backlog**

At December 31, 2012, our backlog (including confirmed purchase orders, deferred revenue and customer prepayments) was \$5.1 million. We expect to fulfill our December 31, 2012 backlog for machines and PSCs during the next twelve months. This is compared to a backlog of \$7.7 million at December 31, 2011.

**Environmental Matters**

Compliance with federal, state and local laws and regulations relating to the discharge of materials into the environment or otherwise relating to the protection of the environment has not had a material impact on capital expenditures, earnings or the competitive position of us and our subsidiaries. We are not the subject of any legal or administrative proceeding relating to the environmental laws of the United States or any country in which we have an office. We have not received any notices of any violations of any such environmental laws.

**Employees**

As of December 31, 2012, we employed a total of 163 (131 full time) employees at our five locations. None of these employees is a party to a collective bargaining agreement, and we believe our relations with them are good.

**Geographic Information**

Our revenues by geographic region (based upon the country where the sale originated) for the year ended December 31, 2012 were Americas 27.2%, Europe 48.7% and Asia 24.1% as compared to Americas 30.0%, Europe 37.1% and Asia 32.9% for the same period in 2011. Revenues by geographic region for the year ended December 31, 2010 were Americas 29.3%, Europe 51.4% and Asia 19.3%. See Note 17 of the Notes to the Consolidated Financial Statements in this Annual Report on Form 10-K for additional information.



---

**Table of Contents**

**Item 1A. Risk Factors**

***RISK FACTORS***

*In addition to other information contained in this annual report, the following risks should be considered in evaluating our business and future prospects and an investment in our common stock. The risks and uncertainties described below are not the only ones we face. If any of the following risks and uncertainties develops into actual events, our business, financial condition, results of operations and cash flows could be materially adversely affected. In that case, the price of our common stock could decline and you may lose all or part of your investment.*

**Risks Related to Our Business and Industry**

***We may not be able to significantly increase the number of materials in which we can print products fast enough to meet our business plan.***

Our business plan is heavily dependent upon our ability to steadily increase the number of qualified materials in which our machines can print products, because this will increase our addressable market, both as to customers and products for customers. However, qualifying new materials is a complicated engineering task, and there is no way to predict whether, or when, any given material will be qualified. If we cannot hire sufficient skilled people to work on qualifying new materials for printing, or if we lack the resources necessary to create a steady flow of new materials, we will not be able to meet our business plan goals and a competitor may emerge that is better at qualifying new materials, either of which would have an adverse effect on our business results.

***Our future success in qualifying new materials for printing may attract more competitors into our markets, some which may be much larger than we are.***

If we succeed in qualifying a growing number of materials for use in our 3D printing machines, that will increase our addressable market. However, as we create a larger addressable market, our market may become more attractive to other 3D printing companies or large companies that are not 3D printing companies, but which may see an economic opportunity in the markets we have created. Because we are a supplier of 3D printed products to industrial companies, an increase in the number of competitors for our addressable market is likely to adversely affect our business and financial results.

***We may not be able to adequately increase demand for our products.***

Our business plan is built around a steady increase in the demand for our products. However, only a relatively small number of our potential customers know of the existence of AM and are familiar with its capabilities, and even fewer understand the potential benefits of using AM to manufacture products. If we do not develop effective strategies to raise awareness among potential customers of the benefits of AM, we may be unable to achieve our planned rate of growth, which could adversely affect our results of operations.

***We may not be able to hire the number of skilled employees that we need to achieve our business plan.***

For our business to grow in accordance with our business plan, we will need to hire and retain additional employees with the technical competence and engineering skills to operate our machines, improve our technology and processes and expand our technological capability to print using an increasing variety of materials. People with these skills are in short supply and may not be available in sufficient numbers to allow us to meet the goals of our business plan. If we cannot obtain the services of sufficient technically skilled employees, we may not be able to achieve our planned rate of growth, which could adversely affect our results of operations.

**Table of Contents**

*Our revenues and operating results may fluctuate.*

Our revenues and operating results may fluctuate from quarter-to-quarter and year-to-year and are likely to continue to vary due to a number of factors, many of which are not within our control. A significant portion of our machine orders are typically received during the third or fourth quarter of the fiscal year as a result of the timing of capital expenditures of our customers. Our machines typically are shipped within the quarter or the next quarter after orders are received. Thus, revenues and operating results for any future period are not predictable with any significant degree of certainty. We also typically experience weaker demand for our machines in the first and second quarters. For these reasons, comparing our operating results on a period-to-period basis may not be meaningful. You should not rely on our past results as an indication of our future performance.

Fluctuations in our operating results and financial condition may occur due to a number of factors, including, but not limited to, those listed below and those identified throughout this [Risk Factors](#) section:

the degree of market acceptance of our products;

the mix of products that we sell during any period;

our long sales cycle;

generally weaker demand for machines in the first and second quarters;

development of competitive systems by others;

our response to price competition;

delays between our expenditures to develop and market new or enhanced machines and products and the generation of sales from those products;

changes in the amount we spend to promote our products and services;

the geographic distribution of our sales;

changes in the cost of satisfying our warranty obligations and servicing our installed base of products;

our level of research and development activities and their associated costs and rates of success;

general economic and industry conditions that affect end-user demand and end-user levels of product design and manufacturing, including the adverse effects of the current economic crisis affecting Europe;

changes in accounting rules and tax laws; and

changes in interest rates that affect returns on our cash balances and short-term investments.

Due to the foregoing factors, you should not rely on quarter-to-quarter or year-to-year comparisons of our operating results as an indicator of future performance.

***We may not be able to generate operating profits.***

Since our inception, we have not generated operating profits. In the event that we are unable to execute on our business plan, we may be unable to generate profits in the future.

***We may not be able to introduce new machines and related industrial materials acceptable to the market or to improve the technology and industrial materials used in our current machines.***

Our revenues are derived from the sale of machines for, and products manufactured using, AM. Our market is subject to innovation and technological change. A variety of technologies have the capacity to compete against one another in our market, which is, in part, driven by technological advances and end-user requirements and

---

**Table of Contents**

preferences, as well as the emergence of new standards and practices. Our ability to compete in the industrial AM market depends, in large part, on our success in enhancing and developing new machines, in enhancing our current machines, in enhancing and adding to our technology, and in developing and qualifying new industrial materials in which we can print. We believe that to remain competitive we must continuously enhance and expand the functionality and features of our products and technologies. However, we may not be able to:

Enhance our existing products and technologies;

Continue to leverage advances in industrial printhead technology;

Develop new products and technologies that address the increasingly sophisticated and varied needs of prospective end-users, particularly with respect to the physical properties of industrial materials and other consumables;

Respond to technological advances and emerging industry standards and practices on a cost-effective and timely basis;

Develop products that are cost-effective or that otherwise gain market acceptance; and

Adequately protect our intellectual property as we develop new products and technologies.

*If the market does not develop as we expect, our revenues may stagnate or decline.*

The marketplace for industrial manufacturing is dominated by conventional manufacturing methods that do not involve AM technology. If AM technology does not gain market acceptance as an alternative for industrial manufacturing, or if the marketplace adopts AM based on a technology other than our technology, we may not be able to increase or sustain the level of sales of our products and machines and our results of operations would be adversely affected as a result.

*Loss of key management or sales or customer service personnel could adversely affect our results of operations.*

Our future success depends to a significant extent on the skills, experience and efforts of our management and other key personnel. We must continue to develop and retain a core group of management individuals if we are to realize our goal of continued expansion and growth. While we have not previously experienced significant problems attracting and retaining members of our management team and other key personnel, there can be no assurance that we will be able to continue to retain these individuals, and the loss of any or all of these individuals could materially and adversely affect our business. We do not carry key-man insurance on any member of management.

*Our international operations pose currency risks, which may adversely affect our operating results.*

Our operating results may be affected by volatility in currency exchange rates and our ability to effectively manage our currency transaction and translation risks. In general, we conduct our business, earn revenue and incur costs in the local currency of the countries in which we operate. As a result, our international operations present risks from currency exchange rate fluctuations. The financial condition and results of operations of each of our foreign operating subsidiaries are reported in the relevant local currency and then translated to U.S. dollars at the applicable currency exchange rate for inclusion in our combined consolidated financial statements. We do not manage our foreign currency exposure in a manner that would eliminate the effects of changes in foreign exchange rates. Therefore, changes in exchange rates between these foreign currencies and the U.S. dollar will affect the recorded levels of our foreign assets and liabilities, as well as our revenues, cost of goods sold, and operating margins, and could result in exchange losses in any given reporting period.

In the future, we may not benefit from favorable exchange rate translation effects, and unfavorable exchange rate translation effects may harm our operating results. In addition to currency translation risks, we incur



## **Table of Contents**

currency transaction risks whenever we enter into either a purchase or a sale transaction using a different currency from the currency in which we receive revenues. In such cases we may suffer an exchange loss because we do not currently engage in currency swaps or other currency hedging strategies to address this risk.

Given the volatility of exchange rates, we can give no assurance that we will be able to effectively manage our currency transaction and/or translation risks or that any volatility in currency exchange rates will not have an adverse effect on our results of operations.

***One of our principal stockholders will be able to exert substantial influence.***

S. Kent Rockwell, our Chairman and Chief Executive Officer, beneficially owns approximately 37.1% of our outstanding shares of common stock and may have effective control over the election of our Board of Directors and the direction of our affairs. As a result, he could exert considerable influence over the outcome of any corporate matter submitted to our stockholders for approval, including the election of directors and any transaction that might cause a change in control, such as a merger or acquisition. Any stockholders in favor of a matter that is opposed by Mr. Rockwell would have to obtain a significant number of votes to overrule the votes of Mr. Rockwell.

***We may need to raise additional capital from time to time if we are going to meet our growth strategy and may be unable to do so on attractive terms.***

Expanding our business to meet the growth strategy may require additional investments of capital from time to time, and our existing sources of cash and any funds generated from operations may not provide us with sufficient capital. For various reasons, including any current noncompliance with existing or future lending arrangements, additional financing may not be available when needed, or may not be available on terms favorable to us. If we fail to obtain adequate capital on a timely basis or if capital cannot be obtained at reasonable costs, we will not be able to achieve our planned rate of growth, which will adversely affect our results of operations.

***We are highly dependent upon sales to certain industries.***

For 2012, revenues of machines and products have been concentrated to companies in the aerospace (20%), automotive (24%), heavy equipment (26%) and energy/oil/gas (13%) industries and those industries' respective suppliers. To the extent any of these industries experience a downturn, our results of operations may be adversely affected. Additionally, if any of these industries or their respective suppliers or other providers of manufacturing services develop new technologies or alternatives to manufacture the products that are currently manufactured using our machines, it may adversely affect our results of operations.

***We are dependent on a single supplier of printheads.***

We currently rely on a single source to supply the printheads used by our machines. While we believe that there are other suppliers of printheads upon which we could rely, we could experience delays and interruptions if our supply is interrupted that might temporarily impact the financial performance of our business.

***We may not be able to manage the expansion of our operations effectively in order to achieve our projected levels of growth.***

We have expanded our operations significantly in recent periods, and our business plan calls for further expansion over the next several years. We anticipate that further development of our infrastructure and an increase in the number of our employees will be required to achieve our planned broadening of our product offerings and client base, improvements in our machines and materials used in our machines, and our planned international growth. In particular, we must increase our marketing and services staff to support new marketing

**Table of Contents**

and service activities and to meet the needs of both new and existing customers. Our future success will depend in part upon the ability of our management to manage our growth effectively. If our management is unsuccessful in meeting these challenges, we may not be able to achieve our anticipated level of growth which would adversely affect our results of operations.

*Our planned expansion of our international sales is subject to various risks, and failure to manage these risks could adversely affect our results of operations.*

Our business is subject to certain risks associated with doing business globally. Our sales outside of the Americas were 72.8%, 70.0% and 70.7% of our total sales in 2012, 2011 and 2010, respectively. One of our growth strategies is to pursue opportunities for our business in several areas of the world outside of the United States, any or all of which could be adversely affected by the risks set forth below. Our operations outside of the United States are subject to risks associated with the political, regulatory and economic conditions of the countries in which we operate, such as:

fluctuations in foreign currency exchange rates;

potentially longer sales and payment cycles;

potentially greater difficulties in collecting accounts receivable;

potentially adverse tax consequences;

reduced protection of intellectual property rights in certain countries;

difficulties in staffing and managing foreign operations;

laws and business practices favoring local competition;

costs and difficulties of customizing products for foreign countries;

compliance with a wide variety of complex foreign laws, treaties and regulations;

tariffs, trade barriers and other regulatory or contractual limitations on our ability to sell or develop our products in certain foreign markets; and

becoming subject to the laws, regulations and court systems of many jurisdictions.

Any of these factors could materially adversely affect sales of our products to global customers or harm our reputation, which could adversely affect our results of operations.

*Global economic, political and social conditions have adversely impacted our sales and may continue to do so.*

## Edgar Filing: ExOne Co - Form 10-K

The uncertain direction and relative strength of the global economy, difficulties in the financial services sector and credit markets, continuing geopolitical uncertainties and other macroeconomic factors all affect spending behavior of potential end-users of our products. The prospects for economic growth in the United States and other countries remain uncertain and may cause end-users to further delay or reduce technology purchases. In particular, a substantial portion of our sales are made to customers in countries in Europe, which is experiencing a significant economic crisis. If global economic conditions remain volatile for a prolonged period or if European economies experience further disruptions, our results of operations could be adversely affected. The global financial crisis affecting the banking system and financial markets has resulted in a tightening of credit markets, lower levels of liquidity in many financial markets and extreme volatility in fixed income, credit, currency and equity markets. These conditions may make it more difficult for our end-users to obtain financing.



---

**Table of Contents**

***Due to our plan to increase our global business activities, we may be adversely affected by violations of the FCPA, similar anti-bribery laws in other jurisdictions in which we currently or may in the future operate, or various international trade and export laws.***

Our business plan envisions that we will conduct increasing amounts of business outside of the United States, which will create various domestic and foreign regulatory challenges. The Foreign Corrupt Practices Act of 1977, as amended (the "FCPA"), and similar anti-bribery laws in other jurisdictions generally prohibit U.S.-based companies and their intermediaries from making improper payments to non-U.S. officials for the purpose of obtaining or retaining business. We have policies and controls in place designed to ensure internal and external compliance with these and other anti-bribery laws. To ensure compliance, our anti-bribery policy and training on a global basis provides our employees with procedures, guidelines and information about anti-bribery obligations and compliance. Further, we require our partners, subcontractors, agents and others who work for us or on our behalf to comply with anti-bribery laws. We also have procedures and controls in place designed to ensure internal and external compliance. However, such anti-bribery policy, training, internal controls, and procedures will not always protect us from reckless, criminal or unintentional acts committed by our employees, agents or other persons associated with us. If we are found to be in violation of the FCPA or other anti-bribery laws (either due to acts or inadvertence of our employees, or due to the acts or inadvertence of others), we could suffer criminal or civil penalties or other sanctions, which could have a material adverse effect on our business. In addition, actual or alleged violations could damage our reputation and adversely affect our results of operations.

***We rely on our information technology systems to manage numerous aspects of our business and customer and supplier relationships, and a disruption of these systems could adversely affect our results of operations.***

We depend on our information technology, or "IT," systems to manage numerous aspects of our business and provide analytical information to management. Our IT systems allow us to efficiently purchase products from our suppliers, provide procurement and logistic services, ship products to our customers on a timely basis, maintain cost-effective operations and provide superior service to our customers. Our IT systems are an essential component of our business and growth strategies, and a disruption to our IT systems could significantly limit our ability to manage and operate our business efficiently. These systems are vulnerable to, among other things, damage and interruption from power loss, including as a result of natural disasters, computer system and network failures, loss of telecommunication services, operator negligence, loss of data, security breaches and computer viruses. Any such disruption could adversely affect our results of operations.

***We could be subject to personal injury, property damage, product liability, warranty and other claims involving allegedly defective products that we supply.***

The products we supply are sometimes used in potentially hazardous applications, such as the assembled parts of an aircraft or automobile, that could result in death, personal injury, property damage, loss of production, punitive damages, and consequential damages. While we have not experienced any such claims to date, actual or claimed defects in the products we supply could result in our being named as a defendant in lawsuits asserting potentially large claims. Any such lawsuit, regardless of merit, could result in material expense, diversion of management time and efforts, and damage to our reputation, and could cause us to fail to retain or attract customers, which could adversely affect our results of operations.

***We may not have adequate insurance for potential liabilities.***

In the ordinary course of business, we may be subject to various product and non-product related claims, lawsuits and administrative proceedings seeking damages or other remedies arising out of our commercial operations. We maintain insurance to cover our potential exposure for most claims and losses. However, our insurance coverage is subject to various exclusions, self-retentions and deductibles, may be inadequate or

---

**Table of Contents**

unavailable to protect us fully, and may be cancelled or otherwise terminated by the insurer. Furthermore, we face the following additional risks under our insurance coverage:

we may not be able to continue to obtain insurance coverage on commercially reasonable terms, or at all;

we may be faced with types of liabilities that are not covered under our insurance policies, such as environmental contamination or terrorist attacks, and that exceed any amounts what we may have reserved for such liabilities;

the amount of any liabilities that we may face may exceed our policy limits and any amounts we may have reserved for such liabilities; and

we may incur losses resulting from interruption of our business that may not be fully covered under our insurance policies. Even a partially uninsured claim of significant size, if successful, could materially adversely affect our business, financial condition, results of operations and liquidity. However, even if we successfully defend ourselves against any such claim, we could be forced to spend a substantial amount of money in litigation expenses, our management could be required to spend valuable time in the defense against these claims and our reputation could suffer, any of which could adversely affect our results of operations.

***If any of our manufacturing facilities or PSCs are disrupted, sales of our products may be disrupted, which could result in loss of revenues and an increase in unforeseen costs.***

We manufacture our machines at our facilities in Augsburg, Germany and North Huntingdon, Pennsylvania. Our PSCs are located in North Huntingdon, Pennsylvania; Houston, Texas; Troy, Michigan; Augsburg, Germany; and Kanagawa, Japan. If the operations of these facilities are materially disrupted, we would be unable to fulfill customer orders for the period of the disruption, we would not be able to recognize revenue on orders, and we might need to modify our standard sales terms to secure the commitment of new customers during the period of the disruption and perhaps longer. Depending on the cause of the disruption, we could incur significant costs to remedy the disruption and resume product shipments. Such a disruption could have an adverse effect on our results of operations.

***Under applicable employment laws, we may not be able to enforce covenants not to compete and therefore may be unable to prevent our competitors from benefiting from the expertise of some of our former employees.***

We generally enter into non-competition agreements with our employees. These agreements prohibit our employees, if they cease working for us, from competing directly with us or working for our competitors or clients for a limited period. We may be unable to enforce these agreements under the laws of the jurisdictions in which our employees work, including Germany and Japan, and it may be difficult for us to restrict our competitors from benefiting from the expertise of our former employees or consultants developed while working for us. If we cannot demonstrate that our legally protectable interests will be harmed, we may be unable to prevent our competitors from benefiting from the expertise of our former employees or consultants and our ability to remain competitive may be diminished.

**Risks Related to Our Intellectual Property**

***We may not be able to protect our trade secrets and intellectual property.***

While some of our technology is licensed under patents belonging to others or is covered by process patents which are owned or applied for by us, much of our key technology is not protected by patents. Since we cannot legally prevent one or more other companies from developing similar or identical technology to our unpatented technology, it is likely that, over time, one or more other companies may be able to replicate our technology, thereby reducing our technological advantages. If we do not protect our technology or are unable to develop new

---

## **Table of Contents**

technology that can be protected by patents or as trade secrets, we may face increased competition from other companies, which may adversely affect our results of operations.

*We enjoy license rights and exclusivity of certain patents and intellectual property and cannot adequately estimate the effects of their expiration upon the entrance or advancement of competitors into the AM industrial market.*

We have exclusive license and non-exclusive license rights to certain patents that we utilize in the industrial market. Some of these patents expired in November 2012. We cannot adequately estimate the effect that the expiration of these patents will have upon the entrance or advancement of other AM manufacturers into the industrial market. See **Item 1. Business** Intellectual Property of this Annual Report on Form 10-K.

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

Our success and future revenue growth will depend, in part, on our ability to protect our intellectual property. We rely primarily on patents, trademarks, and trade secrets, as well as non-disclosure agreements and other methods, to protect our proprietary technologies and processes globally. Despite our efforts to protect our proprietary technologies and processes, it is possible that competitors or other unauthorized third parties may obtain, copy, use, or disclose our technologies and processes. We cannot assure you that any of our existing or future patents or other intellectual property rights will not be challenged, invalidated, or circumvented or will otherwise provide us with meaningful protection. We may not be able to obtain foreign patents corresponding to our U.S. or foreign patent applications. Even if foreign patents are granted, effective enforcement in foreign countries may not be available. If our patents and other intellectual property protections do not adequately protect our technology, our competitors may be able to offer products similar to ours. We may not be able to detect the unauthorized use of our proprietary technology and processes or take appropriate steps to prevent such use. Our competitors may also be able to develop similar technology independently or design around our patents. Any of the foregoing events would lead to increased competition and lower revenue or gross profits, which would adversely affect our results of operations.

*We may be subject to alleged infringement claims.*

We may be subject to intellectual property infringement claims from individuals, vendors, and other companies who have acquired or developed patents in the field of AM for purposes of developing competing products or for the sole purpose of asserting claims against us. Any claims that our products or processes infringe the intellectual property rights of others, regardless of the merit or resolution of such claims, could cause us to incur significant costs in responding to, defending, and resolving such claims, and may prohibit or otherwise impair our ability to commercialize new or existing products. If we are unable to effectively defend our technologies and processes, our market share, sales and profitability could suffer, which could adversely affect our results of operations.

*Certain of our employees and patents are subject to German law.*

Many of our employees work in Germany and are subject to German employment law. Ideas, developments, discoveries and inventions made by such employees and consultants are subject to the provisions of the German Act on Employees' Inventions (Gesetz über Arbeitnehmererfindungen), which regulates the ownership of, and compensation for, inventions made by employees. We face the risk that disputes can occur between us and our employees or ex-employees pertaining to alleged non-adherence to the provisions of this act that may be costly to defend and take up our management's time and efforts whether we prevail or fail in such dispute. In addition, under the German Act on Employees' Inventions, certain employees retained rights to patents they invented or co-invented prior to 2009. Although most of these employees have subsequently assigned their interest in these patents to us, there is a risk that the compensation we provided to them may be deemed to be insufficient in the

## **Table of Contents**

future and we may be required under German law to increase the compensation due to such employee for the use of their patent. In those cases where employees have not assigned their interests to us, we may need to pay compensation for the use of those patents. If we are required to pay additional compensation or face other disputes under the German Act on Employees' Inventions, our results of operations could be adversely affected.

### **Risks Related to the Securities Markets and Ownership of Our Common Stock**

*We have broad discretion as to the use of the net proceeds from our public offering and may not use them effectively.*

We cannot specify with certainty the particular uses to which we will put the net proceeds from our public offering. Our management has broad discretion in the application of the net proceeds, and we may use these proceeds in ways with which you may disagree or for purposes other than those contemplated at the time of the offering. The failure by our management to apply these funds effectively could have a material adverse effect on our business, financial condition and results of operation. Pending their use, we may invest the net proceeds from this offering in a manner that does not produce income or that loses value.

*The market price of our common stock may fluctuate significantly.*

The market price and liquidity of the market for shares of our common stock that will prevail in the market after the IPO may fluctuate and may be significantly affected by numerous factors, some of which are beyond our control and may not be directly related to our operating performance. These factors include:

significant volatility in the market price and trading volume of securities of companies in our sector, which is not necessarily related to the operating performance of these companies;

the mix of products that we sell, and related services that we provide, during any period;

delays between our expenditures to develop and market new products and the generation of sales from those products;

changes in the amount that we spend to develop, acquire or license new products, technologies or businesses;

changes in our expenditures to promote our products and services;

changes in the cost of satisfying our warranty obligations and servicing our installed base of systems;

success or failure of research and development projects of us or our competitors;

announcements of acquisitions by us or one of our competitors;

the general tendency towards volatility in the market prices of shares of companies that rely on technology and innovation;

changes in regulatory policies or tax guidelines;

changes or perceived changes in earnings or variations in operating results;

any shortfall in revenue or earnings from levels expected by investors or securities analysts; and

general economic trends and other external factors.

***If equity research analysts do not publish research or reports about our business, or if they issue unfavorable commentary or downgrade our shares, the price of our shares could decline.***

The trading market for our shares will rely in part on the research and reports that equity research analysts publish about us and our business. We do not have control over these analysts, and we do not have commitments

---

## **Table of Contents**

from them to write research reports about us. The price of our shares could decline if one or more equity research analysts downgrades our shares, issues other unfavorable commentary, or ceases publishing reports about us or our business.

### ***Future sales of our shares could reduce the market price of our shares.***

The price of our shares could decline if there are substantial sales of our common stock, particularly by our directors, their affiliates or our executive officers, or when there is a large number of shares of our common stock available for sale. The perception in the public market that our stockholders might sell our shares could also depress the market price of our shares. Many of our existing stockholders are subject to lock-up agreements with the underwriters that restrict their ability to transfer their shares for at least 180 days after the date of the IPO. Consequently, upon expiration of the lock-up agreements, approximately 7,072,105 shares held by our existing stockholders or directors will be eligible for sale in the public market. The market price of our shares may drop significantly when the restrictions on resale by our existing stockholders lapse and these stockholders are able to sell their shares into the market. If this occurs or continues it could impair our ability to raise additional capital through the sale of securities should we desire to do so.

### ***Raising additional capital by issuing securities may cause dilution to our stockholders.***

We may need or desire to raise substantial additional capital in the future. Our future capital requirements will depend on many factors, including, among others:

Our degree of success in capturing a larger portion of the industrial products production market;

The costs of establishing or acquiring sales, marketing, and distribution capabilities for our products;

The costs of preparing, filing, and prosecuting patent applications, maintaining and enforcing our issued patents, and defending intellectual property-related claims;

The extent to which we acquire or invest in businesses, products, or technologies and other strategic relationships; and

The costs of financing unanticipated working capital requirements and responding to competitive pressures.

If we raise additional funds by issuing equity or convertible debt securities, we will reduce the percentage ownership of our then-existing stockholders, and the holders of those newly-issued equity or convertible debt securities may have rights, preferences, or privileges senior to those possessed by our then-existing stockholders. Additionally, future sales of a substantial number of shares of our common stock or other equity-related securities in the public market could depress the market price of our common stock and impair our ability to raise capital through the sale of additional equity or equity-linked securities. We cannot predict the effect that future sales of our common stock or other equity-related securities would have on the market price of our common stock.

### ***We will incur increased costs as a result of operating as a public company, and our management will be required to devote substantial time to new compliance initiatives.***

As a public company whose shares are listed on the NASDAQ Global Market, we will incur accounting, legal and other expenses that we did not incur as a private company. We will incur costs associated with our public company reporting requirements of the Securities and Exchange Act of 1934, as amended (the Exchange Act ). We also anticipate that we will incur costs associated with corporate governance requirements, including requirements under Section 404 and other provisions of the Sarbanes-Oxley Act, as well as rules implemented by the SEC, the listing requirements of the NASDAQ Global Market and the NASDAQ Marketing Rules and other applicable securities rules and regulations. Compliance with these rules and regulations will increase our legal and financial compliance costs, introduce new costs such as investor relations, stock exchange listing fees and



---

**Table of Contents**

stockholder reporting, and will make some activities more time-consuming and costly. We are currently evaluating and monitoring developments with respect to these rules, and we cannot predict or estimate the amount of additional costs we may incur or the timing of such costs.

In addition, changing laws, regulations and standards relating to corporate governance and public disclosure are creating uncertainty for public companies, increasing legal and financial compliance costs and making some activities more time consuming. These laws, regulations and standards are subject to varying interpretations, in many cases due to their lack of specificity, and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices. We intend to invest resources to comply with evolving laws, regulations and standards, and this investment may result in increased general and administrative expenses and a diversion of management's time and attention from revenue-generating activities to compliance activities. If our efforts to comply with new laws, regulations and standards differ from the activities intended by regulatory or governing bodies due to ambiguities related to their application and practice, regulatory authorities may initiate legal proceedings against us and our business may be adversely affected.

However, for as long as we remain an emerging growth company as defined in the JOBS Act, we may take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies including, but not limited to, not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act, or Section 404, less extensive disclosure obligations regarding executive compensation in our periodic reports and proxy statements, exemptions from the requirements to hold a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved and an extended transition period for complying with new or revised accounting standards. We may take advantage of these reporting exemptions until we are no longer an emerging growth company. We may remain an emerging growth company for up to five years. See Explanatory Note Implications of Being an Emerging Growth Company of this Annual Report on Form 10-K.

***We have never paid cash dividends on our common equity interests, and we do not anticipate paying any cash dividends in the foreseeable future. Therefore, if our share price does not appreciate, our investors may not gain and could potentially lose on their investment in our shares.***

We have never declared or paid cash dividends on our common interests, nor do we anticipate paying any cash dividends on our share capital, after this offering and in the foreseeable future. We currently intend to retain all available funds and any future earnings to fund the development and growth of our business. As a result, capital appreciation, if any, of our shares will be investors' sole source of gain for the foreseeable future.

***As an emerging growth company, we intend to follow certain permitted corporate governance practices instead of the otherwise applicable SEC and NASDAQ requirements, which may result in less protection than is accorded to investors in a non-emerging growth company.***

As an emerging growth company, we will be permitted, and intend to follow, certain permitted corporate governance practices instead of those otherwise required by the SEC and under the listing requirements of the NASDAQ Global Market. Following our emerging growth company governance practices as opposed to the requirements that would otherwise apply to a company listed on the NASDAQ Global Market may provide less protection to you than what is accorded to investors under the Listing Rules of the NASDAQ Stock Market applicable to non-emerging growth company issuers.

***As an emerging growth company, we may delay adoption of new or revised accounting standards, which may make our stock less attractive and our trading price more volatile.***

Pursuant to the JOBS Act, as an emerging growth company, we have elected to take advantage of an extended transition period for any new or revised accounting standards that may be issued by the Financial



---

**Table of Contents**

Accounting Standards Board (FASB) or the SEC, which means that when a standard is issued or revised and it has different application dates for public or private companies, we, as an emerging growth company, can delay adoption of the standard until it applies to private companies. This may make a comparison of our financial statements with any other public company that is either not an emerging growth company or is an emerging growth company that has opted out of using the extended transition period difficult, as different or revised standards may be used. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile and could decline.

*If we are unable to satisfy the requirements of Section 404 of the Sarbanes-Oxley Act as they apply to an emerging growth company that is listed on an exchange for the first time, or if our internal controls over financial reporting are not effective, the reliability of our financial statements may be questioned and our share price may suffer.*

We are subject to the requirements of Section 404(a) of the Sarbanes-Oxley Act, which requires a company that is subject to the reporting requirements of the U.S. securities laws to conduct a comprehensive evaluation of its and its subsidiaries' internal controls over financial reporting. To comply with this statute, we will be required to document and test our internal control procedures, and our management will be required to assess and issue a report concerning our internal controls over financial reporting beginning with our Annual Report on Form 10-K for 2013.

We will need to prepare for compliance with Section 404 by strengthening, assessing and testing our system of internal controls to provide the basis for our management's report. However, the continuous process of strengthening our internal controls and complying with Section 404(a) is complicated and time-consuming. Furthermore, as our business continues to grow internationally, our internal controls will become more complex and will require significantly more resources and attention to ensure that our internal controls remain effective overall. We have been made aware of material weaknesses in our internal controls over financial reporting by our independent registered public accounting firm. See

**Item 9A. Controls and Procedures** Evaluation of Disclosure Controls and Procedures. We have taken steps to remediate these material weaknesses and plan to take further steps in the future. Section 404 requires annual management assessments of the effectiveness of our internal controls over financial reporting. Assuming that we continue to qualify as an emerging growth company for the next five years, we will be required to comply with Section 404(b), which requires an independent registered public accounting firm to attest to and report on management's assessment of its internal control over financial reporting, at the time we file our annual report for 2018 with the SEC. Over the course of testing our internal controls, our management may identify material weaknesses or significant deficiencies, which may not be remedied in a timely manner to meet the deadline imposed by the Sarbanes-Oxley Act. If our management cannot favorably assess the effectiveness of our internal controls over financial reporting, investor confidence in our financial results may weaken, and our share price may suffer.

*Provisions in our charter documents or Delaware law may inhibit a takeover, which could adversely affect the value of our common stock.*

Our certificate of incorporation and bylaws will contain, and Delaware corporate law contains, provisions that could delay or prevent a change of control or changes in our management. These provisions will apply even if some of our stockholders consider the offer to be beneficial or favorable. If a change of control or change in management is delayed or prevented, the market price of our common stock could decline.

**Item 1B. Unresolved Staff Comments**

None.

## **Table of Contents**

### **Item 2. Properties**

We have five locations. Our corporate headquarters are located in North Huntingdon, Pennsylvania. The size of the facilities at these locations is as follows:

Location	Owned or Leased	Approximate Square Footage
North Huntingdon, Pennsylvania	Owned	42,525 sq. ft.
Troy, Michigan	Leased*	19,646 sq. ft.
Houston, Texas	Leased*	12,000 sq. ft.
Augsburg, Germany	Leased	Aggregate 38,916 sq. ft.
Kanagawa, Japan	Leased	11,293 sq. ft.

\* As of March 27, 2013, we purchased the Troy, Michigan and Houston, Texas facilities. See **Item 1. Business** The Company of this Annual Report on Form 10-K.

In addition to office space, we maintain manufacturing facilities, primarily for producing our machines, in the above referenced space in Augsburg, Germany and North Huntingdon, Pennsylvania. We intend to expand our manufacturing facility in Germany.

We maintain PSCs in North Huntingdon, Pennsylvania; Troy, Michigan; Houston, Texas; Augsburg, Germany; and Kanagawa, Japan (near Tokyo). We intend to open two new PSCs during 2013.

### **Item 3. Legal Proceedings**

We are not a party to any legal proceedings.

### **Item 4. Mine Safety Disclosures**

Not applicable.

## **PART II**

### **Item 5. Unregistered Sales of Equity Securities and Use of Proceeds**

#### **Recent Sales of Unregistered Securities**

There were no sales of unregistered securities by the registrant in 2012.

On January 1, 2013, we merged our predecessor company, The Ex One Company, LLC, a Delaware limited liability company (the LLC), with and into a Delaware corporation (the Corporation), which changed its name to The ExOne Company. At the time the Reorganization became effective, by operation of the Delaware corporation law and in accordance with the Agreement and Plan of Merger by and between the LLC and the Corporation, each common unit of LLC membership interest was converted into 0.58 shares of our Common Stock for a total of 5,800,000 shares of Common Stock and each preferred unit of LLC membership interest was converted into 1 share of our Class A Preferred Stock or a total of 18,984,000 shares of Class A Preferred Stock. There were no underwriters. The persons who acquired shares of our Common Stock and our Class A Preferred Stock were those persons who were the owners of the equivalent class of LLC membership interests in our predecessor company prior to the Reorganization.

The shares of Common Stock and Class A Preferred Stock were not sold for cash, and the Company received no consideration in the transaction. The conversion of securities in the Reorganization was exempt from registration under Section 4(2) of the Securities Act as a private placement.

---

## Table of Contents

### Use of Proceeds

**Net Proceeds.** On February 6, 2013, the Company's registration statement on Form S-1 (File No 333-185933) was declared effective for the Company's IPO, pursuant to which the Company registered the offering and sale of 6,095,000 shares of common stock at a public offering price of \$18.00 per share for an aggregate offering price of \$109.7 million. The managing underwriter was FBR Capital Markets & Co. and the co-managers were BB&T Capital Markets and Stephens Inc.

As a result of the IPO, the Company received net proceeds on February 12, 2013 of approximately \$92.0 million, after deducting underwriting discounts and commissions. Following our receipt of the net proceeds, we paid offering expenses of approximately \$1.6 million. Except as described below, none of such payments were direct or indirect payments to any of the Company's directors or officers or their associates or to persons owning 10 percent or more of the Company's common stock or direct or indirect payments to others. We did not receive any of the proceeds from the sale of 611,667 shares of the common stock by the selling stockholder, although we bore the costs, other than underwriting discounts and commissions, associated with the sale of these shares. The selling stockholder was RHI. S. Kent Rockwell, our Chairman and Chief Executive Officer, is deemed to have beneficial ownership of our common stock owned by RHI. References to the majority member refer to affiliates of S. Kent Rockwell, our Chairman and Chief Executive Officer, who is the indirect, sole shareholder of RHI and RFP. Each of RHI and RFP have provided funding to us.

**Rockwell Line of Credit.** On February 14, 2013, we paid approximately \$9.8 million of the net proceeds to repay a revolving line of credit that we have with RFP (the Rockwell Line of Credit) for working capital. The Rockwell Line of Credit provided for borrowing, repayment and reborrowing from time to time. While no limit was specified, borrowings were subject to RFP's approval. Borrowings under the Rockwell Line of Credit bear interest at the rate of 8% per annum and are repayable, in whole or part, upon demand of RFP. As of February 14, 2013, we had \$9.8 million in borrowings and accrued interest outstanding under the Rockwell Line of Credit. The Company no longer maintains the Rockwell Line of Credit. S. Kent Rockwell, our Chairman and Chief Executive Officer, is the beneficiary of the S. Kent Rockwell Revocable Trust, which is the indirect, sole stockholder of RFP. See, **Item 13. Certain Relationships and Related Transactions and Director Independence - Rockwell Related Entities** in this Annual Report on Form 10-K.

**Purchase of Variable Interest Entities.** On March 27, 2013, our wholly-owned subsidiary, ExOne Americas, acquired certain assets, including property and equipment (principally land, buildings and machinery and equipment) held by our two Variable Interest Entities, TMF and Lone Star, and assumed all outstanding debt of such Variable Interest Entities, including certain related interest rate swap agreements. Lone Star is owned by RFP and TMF is owned by the S. Kent Rockwell Revocable Trust. S. Kent Rockwell, our chairman and Chief Executive Officer, is the trustee and beneficiary of the S. Kent Rockwell Revocable Trust, which is the 100% owner of Rockwell Venture Capital, Inc. which is the 100% owner of RFP. See **Item 13. Certain Relationships and Related Party Transactions and Director Independence.**

Payment of approximately \$1.9 million was made to TMF and approximately \$0.2 million was made to Lone Star, including a return of capital to these entities, which are controlled by Mr. Rockwell, of approximately \$1.4 million. These payments were made using net proceeds of the IPO. There was no gain or loss or goodwill generated as a result of this transaction. Simultaneous with the completion of this transaction, we also repaid all of the outstanding debt and settled the related interest rate swap agreements assumed from the Variable Interest Entities, resulting in a payment of approximately \$4.7 million.

## **Table of Contents**

Prior to such purchase and for the periods represented herein, we leased property and equipment used by our Houston, Texas and Troy, Michigan operations from Lone Star and TMF, respectively, and we guaranteed certain debt of both of them. During 2012, 2011 and 2010 we paid Lone Star \$0.1 million, \$0.4 million and \$0.4 million, and TMF \$1.6 million, \$1.0 million and \$1.0 million, respectively, under these leases.

**Other.** On February 14, 2013, we repaid \$300,000 to retire our building note payable with an unrelated party with respect to our facility in North Huntingdon, Pennsylvania out of the net proceeds of the IPO. See Note 1 on the Consolidated Financial Statements in the Annual Report in Form 10-K for additional information. There were no prepayment penalties or gains or losses associated with this early retirement of debt.

We had previously disclosed in our IPO an intention to assume the liabilities of our Variable Interest Entities. Other than our payment of such liabilities described above, rather than the assumption of their debt, there has been no material change in the planned use of proceeds from our IPO as described in our final prospectus filed with the SEC pursuant to Rule 424(b). The remainder of the net proceeds are held them as cash, deposited in banks or invested in cash equivalents or securities.

## **Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities**

### **Market Information**

Our common stock currently trades on The NASDAQ Global Select Market under the symbol `XONE` and began trading on February 7, 2013. There was no active trading market in 2012.

### **Holder**

On March 15, 2013, there were nine holders of record of our Common stock. The number of record holders does not include persons who held our common stock in nominee or street name accounts through brokers.

### **Dividends**

We have never declared or paid cash dividends on our Common stock. We currently intend to retain all earnings, if any, to finance the development and growth of our business and do not anticipate paying cash dividends on our Common stock in the foreseeable future. The declaration, amount and payment of any dividends on shares of Common stock will be at the sole discretion of our board of directors. Our board of directors may take into account general and economic conditions, our financial condition and operating results, our available cash and current and anticipated cash needs, capital requirements, contractual, legal, tax and regulatory restrictions and implications on the payment of dividends by us to our stockholders or by our subsidiaries to us, and such other factors as our board of directors may deem relevant.

### **Securities Authorized for Issuance Under Equity Compensation Plans**

In 2012, we did not have any equity compensation plans.

**Table of Contents****Item 6. Selected Financial Data.**

The data presented in the Selected Financial Data table should be read in conjunction with the information provided in Management's Discussion and Analysis of Financial Condition and Results of Operations in Part II Item 7 and the consolidated financial statements in Part II Item 8 of this Form 10-K. As the Company qualifies as an emerging growth company per the JOBS Act, certain selected financial data as ordinarily required under SEC Regulation S-K Item 301 for the years ending December 31, 2009 and 2008 has been omitted. (See Explanatory Note Implications of Being an Emerging Growth Company of this Annual Report on Form 10-K for further information.)

(dollars in thousands except per unit amounts and machine unit data)	For the years ended December 31,		
	2012	2011	2010
<b>Statement of consolidated operations and comprehensive loss data:</b>			
Revenue	\$ 28,657	\$ 15,290	\$ 13,440
Gross profit	\$ 12,143	\$ 3,643	\$ 3,066
Selling, general and administrative expense*	\$ 18,285	\$ 7,286	\$ 5,978
Net loss attributable to ExOne*	\$ (10,168)	\$ (8,037)	\$ (5,508)
Net loss per share attributable to ExOne common unitholders:			
Basic	\$ (1.16)	\$ (0.80)	\$ (0.55)
Diluted	\$ (1.16)	\$ (0.80)	\$ (0.55)
<b>Consolidated balance sheets data:</b>			
Working capital (deficit)	\$ (4,682)	\$ (979)	\$ (13,253)
Property and equipment net	\$ 12,467	\$ 7,919	\$ 7,990
Total assets	\$ 33,075	\$ 18,615	\$ 15,233
Line of credit	\$ 528	\$	\$
Demand note payable to member	\$ 8,666	\$	\$ 15,045
Long-term debt and financing lease obligations	\$ 10,566	\$ 5,429	\$ 3,839
Redeemable preferred units	\$	\$ 18,984	\$
Preferred units	\$ 18,984	\$	\$
Total members' equity (deficit)	\$ 41	\$ (15,599)	\$ (8,277)
<b>Other data:</b>			
Machine units sold:			
S 15	1	2	2
S Max	9	1	2
S Print	3	1	
Other		1	1
	13	5	5

\* For 2012, selling, general and administrative expense and net loss attributable to ExOne include approximately \$7,735 in equity-based compensation expense. There was no equity-based compensation expense recorded by ExOne during 2011 or 2010.

---

**Table of Contents**

**Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.**  
**(dollars in thousands, except per-unit, unit and share amounts)**

The following discussion and analysis should be read together with the Selected Consolidated Financial Data and our consolidated financial statements and related notes thereto set forth in this Form 10-K. Certain statements contained in this discussion may constitute forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended and, Section 21E of the Securities Exchange Act of 1934, as amended. These statements involve a number of risks, uncertainties and other factors that could cause actual results to differ materially from those reflected in any forward-looking statements, as a result of a variety of risks and uncertainties, including those described under Cautionary Statements Regarding Forward Looking Statements and Risk Factors in Item 1A of this Annual Report on Form 10-K.

The forward looking information set forth in this Form 10-K is provided as of the date of this filing, and, except as required by law, we undertake no duty to update that information.

**Overview**

***Business and Strategy***

We are a global provider of 3D printing machines and printed products, materials and other services to industrial customers. Our business primarily consists of manufacturing and selling 3D printing machines and printing products to specifications for our customers using our 3D printing machines. We offer pre-production collaboration and print products for customers through our production service centers (PSCs), which are located in the United States, Germany and Japan. We build 3D printing machines at our facilities in the United States and Germany. We also supply the associated materials, including consumables and replacement parts, and other services, including training and technical support, necessary for purchasers of our machines to print products.

As an additive manufacturer, we are an early entrant into an evolving manufacturing technology and marketplace. Our strategy has been to position our manufacturing assets, both in terms of our ability and capacity, to prepare for an anticipated increase of customer acceptance of this form of manufacturing. We have made financial support of this growth strategy a priority. We have invested in both our research and development and infrastructure, including capital investment in 3D printing machines, and hiring key personnel.

As our infrastructure grows, we intend to shift our strategic focus to opening additional PSCs in order to broaden our potential global customer base and to expand our 3D printing capability in an increasing variety of industrial materials. Our growth strategy focuses on growing our PSCs in order to print more products for our existing customers and gain new customers. In addition, our growth strategy includes using our printed products as an introduction of our technology to facilitate 3D printing machine sales. An important part of reaching these goals is to increase our capability to print in a growing number of industrial materials and increase the job box sizes and production speeds (volumetric output) available to our potential customers which will increase the efficiency and usefulness of our technology. Additionally, we also believe expanding the location of our PSCs to high-growth economies and geographic regions that are readily accessible by a significant number of potential customers will help us to increase sales. To better balance our business, we intend to develop our customer base so that revenue is not dependent on any one region (North America, South America and Latin America (collectively the Americas), Europe and Asia). Likewise we intend to balance revenue between our 3D printing machines and 3D printed products, materials and other services.

***Recent Developments***

***Reorganization.*** On January 1, 2013, 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. As a result of the Reorganization, The Ex One Company, LLC became the Company, a Delaware corporation, the

---

**Table of Contents**

common and preferred interest holders of The Ex One Company, LLC became holders of common stock and preferred stock, respectively, of the Company and the subsidiaries of The Ex One Company, LLC became the subsidiaries of the Company. The preferred stock of the Company was converted into common stock on a 9.5 to 1 basis (1,998,275 shares of common stock) immediately prior to the IPO.

Prior to giving effect to the Reorganization transaction, no provision for income taxes had been recorded for The Ex One Company, LLC as its individual members were taxed based on their proportionate share of taxable income. Upon conversion, The ExOne Company will be taxed as a corporation for U.S. federal, state, local and foreign income tax purposes. On January 1, 2013, we recorded a net deferred tax asset of approximately \$213 based on the difference between the book and tax basis of assets and liabilities as of that date. Due to a history of operating losses at the subsidiary level, a valuation allowance of 100% of the net deferred tax asset was established.

***Amendment to the Exclusive Patent License Agreement with MIT.*** On January 22, 2013, we entered into the Amended MIT License Agreement, which provides for, among other things, (1) a reduction in the term of the agreement between us and MIT from the date of expiration or abandonment of all issued patent rights to December 31, 2016, (2) an increase in the minimum license maintenance fees due for the years ended December 31, 2013 through December 31, 2016 from \$50 annually to \$100 annually, with amounts related to 2013 through 2016 guaranteed by ExOne in the event of termination of the agreement and (3) a settlement of all past and future royalties on net sales of licensed products, processes and consumables for a one-time payment of \$200, payable in 2013 by us, and (4) a provision for extension of the term of the arrangement between the parties for an annual license maintenance fee of \$100 for each subsequent year beyond 2016. As a result of the Amended MIT License Agreement, we recorded a reduction to our accrued license fees at December 31, 2012, of approximately \$1,500 with a corresponding reduction to cost of sales.

***Settlement of Preferred Unit Dividends.*** On January 23, 2013, we settled an accrued dividend with certain preferred unit holders of the former limited liability company in the amount of approximately \$1,437. Of this amount, approximately \$304 was settled in cash with the remaining \$1,133 converted by the principal preferred unit holder (also the majority member of the former limited liability company) to additional amounts due under the demand note payable to member. The demand note payable to member was fully repaid on February 14, 2013 (See Long-Term Debt Repayments below).

***2013 Equity Incentive Plan.*** On January 24, 2013, our Board of Directors adopted 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 (i) 3.0% of our total outstanding shares of common stock as of December 31 of the immediately preceding year or (ii) 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 1,992,242 shares, subject to certain adjustments. On January 24, 2013, the Board also authorized awards of 180,000 incentive stock options (ISOs) under the Plan to certain employees granted contemporaneously with the IPO at an exercise price determined by the IPO offering price, which was \$18.00 per share. These awards vest on a cumulative annual basis over a three year period and the ISOs fully expire on February 6, 2023. See **Item 11. Executive Compensation** 2013 Equity Incentive Plan of the Annual report on Form 10-K for more information about the Plan.

***Initial Public Offering of The ExOne Company.*** On February 6, 2013, the Company's registration statement on Form S-1 (File No 333-185933) was declared effective for the Company's IPO, pursuant to which the Company registered the offering and sale of 6,095,000 shares of our common stock at a public offering price of \$18.00 per share for an aggregate offering price of \$109,710. The managing underwriter was FBR Capital Markets & Co. and the co-managers were BB&T Capital Markets and Stephens Inc.

As a result of the IPO, the Company received net proceeds on February 12, 2013 of approximately \$91,996, after deducting underwriting discounts and commissions. Following our receipt of the net proceeds, we paid offering expenses of approximately \$1,600. Except as described below, none of such payments were direct or indirect payments to any of the Company's directors or officers or their associates or to persons owning 10 percent or

---

## **Table of Contents**

more of the Company's common stock or direct or indirect payments to others. We did not receive any of the proceeds from the sale of 611,667 shares of the common stock by the selling stockholder, although we bore the costs, other than underwriting discounts and commissions, associated with the sale of these shares. The selling stockholder was RHI. S. Kent Rockwell, our Chairman and Chief Executive Officer, is deemed to have beneficial ownership of our common stock owned by RHI. References to the majority member refer to affiliates of S. Kent Rockwell, our Chairman and Chief Executive Officer, who is the indirect, sole shareholder of RHI and RFP. Each of RHI and RFP have provided funding to us.

**Long-Term Debt Repayments.** On February 14, 2013, we repaid outstanding amounts due on the Rockwell Line of Credit, also referred to as demand note payable to member, of approximately \$9,800 (including accrued interest). Following this repayment, the Rockwell Line of Credit was retired. See **Item 13. Certain Relationships and Related Party Transactions and Director Independence** of this Annual Report on Form 10-K. Separately, on February 14, 2013, we repaid \$300 to retire our building note payable with respect to our North Huntingdon, Pennsylvania facility to an unrelated party. There were no prepayment penalties or gains or losses associated with this early retirement of debt.

**TMF and Lone Star Asset Acquisition.** On March 27, 2013, our wholly-owned subsidiary, ExOne Americas, acquired certain assets, including property and equipment (principally land, buildings and machinery and equipment) held by our two Variable Interest Entities, TMF and Lone Star, and assumed all outstanding debt of such Variable Interest Entities, including certain related interest rate swap agreements. Lone Star is owned by RFP and TMF is owned by the S. Kent Rockwell Revocable Trust. S. Kent Rockwell, our chairman and Chief Executive Officer, is the trustee and beneficiary of the S. Kent Rockwell Revocable Trust, which is the 100% owner of Rockwell Venture Capital, Inc. which is the 100% owner of RFP. See, **Item 13. Certain Relationships and Related Party Transactions and Director Independence.**

Payment of approximately \$1,900 was made to TMF and approximately \$200 was made to Lone Star, including a return of capital to these entities, which are controlled by Mr. Rockwell, of approximately \$1,400. There was no gain or loss or goodwill generated as a result of this transaction. Simultaneous with the completion of this transaction, we also repaid all of the outstanding debt and settled the related interest rate swap agreements assumed from the Variable Interest Entities, resulting in a payment of approximately \$4,700.

### ***Operational Performance and Outlook***

We believe that interest in 3D printing is increasing by virtue of the general commercialization of 3D printers and subsequent recent media attention. We occupy a defined space in the 3D printing market because of the size of our 3D printing machines and their application for industrial products and qualified industrial materials. There are 3D printing companies in various sectors of the market, including art, home-printing, dental, biotech and other areas. While our 3D printing machines may differ from those of many other 3D printing companies in that our machines are designed to print industrial products from qualified industrial materials, we expect a general increase in 3D printing to have a positive effect on the public's awareness of our industry.

We have made investments in technology, material sciences, engineering resources, production capacity, marketing and sales force training and developing a global organization, as discussed above, in an attempt to improve our financial performance.

Our growth prospects for 2013 are dependent upon the following external and internal factors:

**Market Expansion.** Our ability to penetrate new and larger industrial markets will be determined in part by our ability to qualify additional industrial materials that may be desired by industrial companies to print products. We currently print in silica sand, ceramic, stainless steel, bronze and glass. By expanding into other materials such as titanium, tungsten carbide, aluminum and magnesium, we believe we can expand our market share and better serve our industrial customer base. In 2012, we established a new materials testing division called EXMAL, which is expected to increase the rate at which new materials will be qualified.



---

## **Table of Contents**

*Customer Demand.* Demand is primarily affected by the capital expenditure purchasing cycle of our 3D printing machine customers. We believe that demand for our 3D printing machines, printed products and other services in Asia is likely to continue to improve. However, if the threat of a continued debt crisis in Europe lingers, industrial companies in that region may ultimately decrease capital spending. In the Americas (primarily the United States), the acceptance of the 3D printing of industrial products has not yet matured to the extent of the other regions in which we conduct business, but we expect demand to increase as awareness and acceptance of 3D printing of industrial products increases.

*Capacity.* Our installed capacity at our PSCs is increasing every year as we add additional 3D printing machines and replace first generation machines with more efficient and productive second generation machines. We anticipate a higher utilization of our installed capacity at our facilities in expectation of higher current and future demand.

*New Machine Development.* We expect the M Flex machine to satisfy the demand of a large range of industrial customers that are interested in directly printing metal, ceramic and glass products. We plan to increase our production output at our German manufacturing facility to produce the new S Print machine and manufacture a greater number of S Max machines. Our S Print machine has been completely redesigned and is our current mid-sized machine platform. The S Print machine provides the same cutting edge technology available in the S Max platform, with an average price point of \$800 (based upon average model options and exchange rates). The S Print machine is used by customers interested in printing objects made from silica sand, metals, glass and ceramics, with a particular focus on industrial applications for smaller casting cores that are often required for the aerospace industry, especially in hydraulic applications. The build box size of the S Print permits the use of exotic and expensive print materials, such as cerabeads, that are required for high heat/high strength applications.

*PSCs.* Our PSCs are centers for customer collaboration and provide customers with a direct contact point to learn about our 3D printing technology, buy products printed by us, and purchase our 3D printing machines. By the end of 2015, we plan to expand our PSC network globally from the current five locations. Like our current PSCs, we plan to locate the additional PSCs in major industrial centers near existing and potential customers. While we may adjust the final locations based upon market considerations, our existing plan includes opening a new PSC in South America and on the west coast of the United States by the third quarter of 2013 and opening two additional locations in Asia and Western Europe by the second quarter of 2014. We will continue to explore additional worldwide opportunities for PSC locations.

### ***How We Measure Our Business***

We use several financial and operating metrics to measure our business. We use these metrics to assess the progress of our business, make decisions on where to allocate capital, time and technology investments, and assess longer-term performance within our marketplace. The key metrics are as follows:

*Revenue.* Our revenue consists primarily of sales of our 3D printing machines and 3D printed products, materials and other services.

*3D printing machines.* 3D printing machine sales are influenced by a number of factors including, among other things, (i) the adoption rate of our 3D printing technology, (ii) end-user product design and manufacturing activity, (iii) the capital expenditure budgets of end-users and potential end-users and (iv) the mix of products sold, all of which may be significantly influenced by macroeconomic factors. Purchases of our 3D printing machines, especially our higher-end, higher-priced systems, typically involve long sales cycles. Our 3D printing machine prices generally include machine installation, training, maintenance and the value of a warranty. Several factors can significantly affect revenue reported for our 3D printing machines for a given period including, among other things, (i) the overall low unit volume of 3D printing machine sales, (ii) the long lead times of our customers' purchasing decisions and (iii) the acceleration or delay of orders and shipments of a small number of machines.

---

**Table of Contents**

*3D printed products, materials and other services.* 3D printed products revenue is derived from our network of PSCs located in the United States (3), Germany (1) and Japan (1). The PSCs utilize our 3D printing machine technology to print products. In addition, our PSCs are also full-service operations that provide support and services such as pre-production collaboration prior to printing products for a customer. Revenue of materials depends upon the volume of consumables that we sell. Sales of our consumables are linked to the number of our 3D printing machines that are installed and active worldwide. Sales of consumables are also driven by our customers' machine usage, which is generally a function of the size of the particular machine and the habits and budget of the particular end-user. Larger machines generally use larger amounts of consumables due to their greater capacity and the higher levels of design and manufacturing activity that are typical of an end-user who utilizes a larger machine.

*Cost of Sales and Gross Profit.* Our cost of sales consists primarily of labor (including service labor), parts (including consumables and spare parts) and overhead to produce 3D printing machines and 3D printed products, materials and other services. Also included in cost of sales are license fees (based upon a percentage of revenue of qualifying products and processes) for the use of intellectual properties, warranty costs and other overhead associated with our production processes. The production capacity at our PSCs (as well as our 3D printing machine manufacturing facilities) presently exceeds the current customer demand and as such a portion of our fixed overhead associated with these facilities is being recognized as a period expense rather than being capitalized as a product cost. We expect our excess capacity to decrease as sales of 3D printing machines and 3D printed products, materials and other services increase. Our 3D printing machines are manufactured at our facilities in Germany and the United States. The cost to manufacture machines consists of component parts, labor and production overhead. The cost of 3D printed products, materials and other services consist primarily of the material cost of our printed products, labor and overhead (including facilities expense and other conversion costs).

Our gross profit is influenced by a number of factors. Most important of these factors is the volume and mix of our 3D printing machines, products, materials and other services sold.

As 3D printing machine sales are cyclical, we will seek to achieve an equal balance in revenue from 3D printing machines and 3D printed products, materials and other services in order to maximize gross profit while managing business risk. In addition, we expect to reduce our cost of sales over time by continued research and development activities directed towards achieving increased efficiencies in the production of 3D printing machines. Our PSCs will also seek to achieve lower material cost and improve throughput.

We are continuously analyzing our supply chain to identify opportunities for better management, in partnership with our customers, in order to reduce the overall cost as a percentage of revenue in this area.

*Operating Expenses.* Our operating expenses consist of research and development expenses and selling, general and administrative expenses.

*Research and development expenses.* Our research and development expenses consist primarily of salaries and related personnel expenses aimed at developing new machinery and materials. Additional costs include the related software and materials, laboratory supplies, and costs for facilities and equipment. We charge all research and development expenses to operations as they are incurred, with the exception of expenses for specific equipment that we capitalize.

*Selling, general and administrative expenses.* Our selling, general and administrative expenses consist primarily of employee-related costs (salaries, benefits, equity-based compensation, education and training and travel) of our executive officers, sales and marketing, finance, accounting, information technology and human resources personnel. Other significant general and administrative costs include the facility costs related to our headquarters in North Huntingdon, Pennsylvania (and the other four facilities where administrative personnel are located) and external costs for legal, accounting, consulting and other professional services.

---

## **Table of Contents**

We expect our administrative expenses to increase in absolute terms and as a percentage of revenue as a result of the additional costs that we expect to incur as a result of becoming a public company. This will include, among other things, increased administrative personnel costs and legal and professional service expenses. Long-term, we expect these expenses will decrease as a percentage of revenue.

*Interest Expense.* Interest expense consists of the interest cost associated with outstanding long-term debt and financing lease arrangements.

We expect our interest expense to continue to decrease as our outstanding debt is lowered over time. Included in our strategy is the consideration of early retirement of debt (where practicable).

*Provision for Income Taxes.* Prior to our reorganization as a corporation on January 1, 2013, we operated as a limited liability company whereby our members were taxed on a proportionate share of our taxable income. As such, no provision has been recorded for U.S. federal or state income taxes. For 2012, 2011 and 2010 our entire provision for income taxes was attributed to our German operations.

Following our Reorganization, we are taxed as a corporation for U.S. federal, state, local and foreign income tax purposes. Current statutory tax rates in the jurisdictions in which we operate, the United States, Germany and Japan, are approximately 40.0% (including state taxes), 29.5% and 38.0%, respectively.

## **Results of Operations.**

### ***Summary***

Net loss attributable to ExOne for 2012 was \$10,168, or \$1.16 per basic and diluted unit, compared with a net loss attributable to ExOne of \$8,037, or \$0.80 per basic and diluted unit in 2011. The increase in our net loss was due to an increase in our operating expenses from 2012 compared to 2011 principally due to a non-recurring equity-based compensation charge and professional service fees incurred in preparation for our initial public offering. Offsetting the impact of the increase in operating expenses, were (i) increases in our revenue and gross profit as a result of a significant increase in 3D printing machine sales for 2012 compared to 2011 and a reduction in license fee expense as a result of the amendment to our agreement with MIT and (ii) a decrease in interest expense as a result of a lower average outstanding debt balance. Refer to the sections below for further description of these changes.

Net loss attributable to ExOne for 2011 was \$8,037, or \$0.80 per basic and diluted unit, compared with a net loss attributable to ExOne of \$5,508, or \$0.55 per basic and diluted unit in 2010. The increase in our net loss was principally due to increases in operating expenses (mostly personnel costs associated with a higher headcount), an increase in interest expense as a result of a higher average outstanding debt balance and an increase in the provision for income taxes due to higher taxable income for our German operations. These increases were offset by improvements in our gross profit as a result of an increase in the volume of sales of 3D printed products, materials and other services. Refer to the sections below for further description of these changes.

### ***Revenue***

Revenue for 2012 was \$28,657 compared with revenue of \$15,290 in 2011, an increase of \$13,367, or 87.4%. This increase was principally due to a higher volume of sales of 3D printing machines (13 in 2012 as compared to 5 in 2011) as well as 3D printed parts, materials and other services.

Revenue for 2011 was \$15,290 compared with revenue of \$13,440 in 2010, an increase of \$1,850, or 13.8%. This increase was principally due to a higher volume of sales of 3D printed parts, materials and other services.

**Table of Contents**

The following table summarizes revenue by product line for each of the years ending December 31:

	2012		2011		2010	
3D printing machines	\$ 15,668	54.7%	\$ 5,406	35.4%	\$ 5,622	41.8%
3D printed parts, materials and other services	12,989	45.3%	9,884	64.6%	7,818	58.2%
	\$ 28,657	100.0%	\$ 15,290	100.0%	\$ 13,440	100.0%

The following table summarizes 3D printing machines sold by type for each of the years ending December 31 (refer to the Our Machines and Machine Platforms section of Part I Item 1 of this Form 10-K for a description of 3D printing machines by type):

	2012	2011	2010
Machine units sold:			
S 15	1	2	2
S Max	9	1	2
S Print	3	1	
Other		1	1
	13	5	5

The following table summarizes the significant components of the change in revenue by product line for 2012 compared to 2011:

	3D printing machines	3D printed parts, materials and other services	Total
<b>2011</b>	\$ 5,406	\$ 9,884	\$ 15,290
Change in revenue attributed to:			
Volume	10,360	3,388	13,748
Price/Mix	95		95
Foreign currency	(193)	(283)	(476)
	10,262	3,105	13,367
<b>2012</b>	\$ 15,668	\$ 12,989	\$ 28,657

The following table summarizes the significant components of the change in revenue by product line for 2011 compared to 2010:

	3D printing machines	3D printed parts, materials and other services	Total
<b>2010</b>	\$ 5,622	\$ 7,818	\$ 13,440
Change in revenue attributed to:			
Volume		1,962	1,962

Edgar Filing: ExOne Co - Form 10-K

Price/Mix	(487)		(487)
Foreign currency	271	104	375
	(216)	2,066	1,850
<b>2011</b>	<b>\$ 5,406</b>	<b>\$ 9,884</b>	<b>\$ 15,290</b>

*Cost of Sales and Gross Profit*

Cost of sales for 2012 was \$16,514 compared with cost of sales of \$11,647 in 2011, an increase of \$4,867, or 41.8%. Cost of sales as a percentage of revenue was 57.6% for 2012 compared with 76.2% in 2011, a decrease of 18.6%.

**Table of Contents**

Cost of sales for 2011 was \$11,647 compared with cost of sales of \$10,374 in 2010, an increase of \$1,273, or 12.3%. Cost of sales as a percentage of revenue was 76.2% for 2011 compared with 77.2% in 2010, a decrease of 1.0%.

Gross profit for 2012 was \$12,143 compared with gross profit of \$3,643 in 2011, an increase of \$8,500, or 233.4%. Gross profit percentage was 42.4% for 2012 compared with 23.8% in 2011, an increase of 18.6%. This increase was principally due to the increase in 3D printing machine volume for 2012 compared with 2011 (see table above) and a reduction in our license fees of \$625 mostly due to the amendment to our agreement with MIT (see description above).

Gross profit for 2011 was \$3,643 compared with gross profit of \$3,066 in 2010, an increase of \$577, or 18.8%. Gross profit percentage was 23.8% for 2011 compared with 22.8% in 2010, an increase of 1.0%. This increase was principally due to (i) a favorable mix of sales in our PSCs (lower cost) as well as (ii) increased volume of activity in our PSCs resulting in more efficient use of our fixed overhead.

**Operating Expenses**

Operating expenses for 2012 were \$20,215 compared with operating expenses of \$8,817 in 2011, an increase of \$11,398, or 129.3%. Operating expenses as a percentage of revenue were 70.5% for 2012 compared with 57.7% in 2011, an increase of 12.8%.

Research and development expenses for 2012 were \$1,930 compared with research and development expenses of \$1,531 in 2011, an increase of \$399, or 26.1%. This increase was mostly due to (i) continued investment in our 3D printing machine technology and (ii) increased costs associated with our materials qualification activities (for titanium, tungsten carbide, aluminum and magnesium).

Selling, general and administrative expenses for 2012 were \$18,285 compared with selling, general and administrative expenses of \$7,286 in 2011, an increase of \$10,999, or 150.1%. This increase was principally due to an equity-based compensation charge of \$7,735 associated with the sale of common units of the former limited liability company to certain members of executive management. In addition, we incurred professional service fees (including legal, audit and other consulting expenses) of \$2,328 in 2012 as compared to \$469 in 2011. This increase is mostly attributable to costs incurred in preparation for our initial public offering, finalized in February 2013.

Operating expenses for 2011 were \$8,817 compared with operating expenses of \$7,131 in 2010, an increase of \$1,686, or 23.6%. Operating expenses as a percentage of revenue were 57.7% for 2011 compared with 53.1% in 2010, an increase of 4.6%.

Research and development expenses for 2011 were \$1,531 compared with research and development expenses of \$1,153 in 2010, an increase of \$378, or 32.8%. This increase was mostly due to continued investment in our 3D printing machine technology.

Selling, general and administrative expenses for 2011 were \$7,286 compared with selling, general and administrative expenses of \$5,978 in 2010, an increase of \$1,308, or 21.9%. This increase was principally due to employee-related costs (salaries, benefits and travel) as a result of an increase in headcount.

The following table summarizes the significant components of operating expenses for each of the years ending December 31:

	<b>2012</b>	<b>2011</b>	<b>2010</b>
Research and development	\$ 1,930	\$ 1,531	\$ 1,153
Selling, general and administrative	18,285	7,286	5,978
	<b>\$ 20,215</b>	<b>\$ 8,817</b>	<b>\$ 7,131</b>

---

**Table of Contents**

***Interest Expense***

Interest expense for 2012 was \$842 compared with interest expense of \$1,570 in 2011, a decrease of \$728, or 46.4%. This decrease was principally due to a lower average outstanding debt balance in 2012 as compared to 2011, mostly due to the conversion of amounts payable on our demand note payable to member to redeemable preferred units.

Interest expense for 2011 was \$1,570 compared with interest expense of \$1,114 in 2010, an increase of \$456, or 40.9%. This increase was principally due to a higher average outstanding debt balance in 2011 as compared to 2010, mostly due to (i) additional equipment loans added in 2011 and (ii) increased borrowings from our majority member of approximately \$3,939. The demand note payable to member accrued interest at 8.0% during both 2011 and 2010.

***Other (Income) Expense Net***

Other income net for 2012 was \$221 compared with other income net of \$158 in 2011, an increase of \$63, or 39.9%. Other income net for 2011 was \$158 compared with other income net of \$197 in 2010, a decrease of \$39, or 19.8%. Changes in other income net were mostly due to net changes in foreign currency exchange impacts.

***Provision for Income Taxes***

The provision for income taxes for 2012 was \$995 compared with a provision for income taxes of \$1,031 in 2011, a decrease of \$36, or 3.5%. This decrease was due to a reduction in expense associated with uncertain tax positions in 2012 compared to 2011 for our German operations.

The provision for income taxes for 2011 was \$1,031 compared with a provision for income taxes of \$198 in 2010, an increase of \$833, or 420.7%. This increase was due to an increase in taxable income in 2011 compared to 2010 for our German operations.

***Noncontrolling Interests***

Net income attributable to noncontrolling interests for 2012 was \$480 compared with net income attributable to noncontrolling interests of \$420 in 2011, an increase of \$60, or 14.3%. This increase was principally due to additional rental income (rental expense for ExOne) associated with 3D printing machines purchased by our variable interest entities, Lone Star and TMF.

Net income attributable to noncontrolling interests for 2011 was \$420 compared with net income attributable to noncontrolling interests of \$328 in 2010, an increase of \$92, or 28.0%. This increase was principally due to an increase in rental income by the noncontrolling interests (rental expense for ExOne) associated with 3D printing machines purchased by our variable interest entities, Lone Star and TMF.

***Other Financial Information***

We believe Adjusted EBITDA is meaningful to our investors to enhance their understanding of our financial performance. Although Adjusted EBITDA is not necessarily a measure of our ability to fund our cash needs, we understand that it is frequently used by securities analysts, investors and other interested parties as a measure of financial performance and to compare our performance with the performance of other companies that report Adjusted EBITDA. Our calculation of Adjusted EBITDA may not be comparable to similarly titled measures reported by other companies.

**Table of Contents**

We define Adjusted EBITDA (earnings before interest, taxes, depreciation and amortization) as net income (loss) attributable to ExOne (as calculated under accounting principles generally accepted in the United States (GAAP)) plus net income (loss) of noncontrolling interests, provision (benefit) for income taxes, interest expense, depreciation, and other (income) expense net. Disclosure in this Annual Report on Form 10-K of Adjusted EBITDA, which is a non-GAAP financial measure, as defined under the rules of the SEC, is intended as a supplemental measure of our performance that is not required by, or presented in accordance with, GAAP. Adjusted EBITDA should not be considered as an alternative to net income (loss) attributable to ExOne or any other performance measure derived in accordance with GAAP. Our presentation of Adjusted EBITDA should not be construed to imply that our future results will be unaffected by unusual or non-recurring items.

**Reconciliation of Adjusted EBITDA to Net Loss Attributable to ExOne**

	2012	2011	2010
Net loss attributable to ExOne*	\$ (10,168)	\$ (8,037)	\$ (5,508)
Net income attributable to noncontrolling interests	480	420	328
Interest expense	842	1,570	1,114
Provision for income taxes	995	1,031	198
Depreciation	1,683	1,170	1,072
Other (income) expense net	(221)	(158)	(197)
Adjusted EBITDA	(6,389)	(4,004)	(2,993)

\* For 2012, net loss attributable to ExOne includes approximately \$7,735 in equity-based compensation expense. There was no equity-based compensation expense recorded by ExOne during 2011 or 2010.

The significant changes in the reconciling items between Adjusted EBITDA and net loss attributable to ExOne for 2012 compared to 2011 include (i) a decrease in interest expense of \$728 due to a lower average outstanding debt balance in 2012 as compared to 2011, including the conversion of demand note payable to member borrowings at the end of 2011 to redeemable preferred units and (ii) an increase in depreciation expense of \$513 attributed to an increase in 3D printing machines in-service in 2012 as compared to 2011.

The significant changes in the reconciling items between Adjusted EBITDA and net loss attributable to ExOne for 2011 compared to 2010 include (i) an increase in interest expense of \$456 due to a higher average outstanding debt balance in 2011 as compared to 2010, mostly due to additional equipment loans added in 2011 and increased borrowings from our majority member of approximately \$3,939 and (ii) an increase in the provision for income taxes of \$833 due to increased taxable income for our German operations.

**Impact of Inflation**

Our results of operations and financial condition are presented based on historical cost. While it is difficult to accurately measure the impact of inflation due to the imprecise nature of the estimates required, we believe the effects of inflation, if any, on our results of operations and financial condition are not significant.

**Liquidity and Capital Resources.**

We have incurred net losses of \$9,688, \$7,617 and \$5,180 for 2012, 2011 and 2010, respectively. Prior to our Reorganization, we operated as a limited liability company and were substantially supported by the continued financial support provided by our majority member. These conditions raise substantial doubt as to our ability to continue as a going concern. On February 12, 2013, in connection with our IPO we received unrestricted net proceeds from the sale of our common stock of approximately \$91,996. We believe that such net proceeds will



**Table of Contents**

be sufficient to support our operations at least through January 1, 2014 (the measurement period for such determination), and therefore no longer believe substantial doubt as to our ability to continue as a going concern continues to exist.

We have continuously operated with negative working capital. This deficit has generally resulted from our inability to generate sufficient cash from our operations to offset our current liabilities, which consist primarily of obligations to vendors and other accounts payable, deferred revenues and borrowings required to be paid within twelve months. We are continuing our efforts to increase revenue from our operations and improve our gross profit, but to date these efforts have not been successful to eliminate our working capital deficit. We have been able to operate since inception due primarily to cash advances made on a regular basis by our majority member. For the year ended December 31, 2012, our working capital deficit increased by \$3,703 as a result of increases to our current liabilities of \$13,830 mostly due to increases in (i) accounts payable and accrued expenses and other liabilities of \$2,398 (attributed to increased purchasing activity of materials and other services in supporting both production and our efforts to commence an initial public offering), (ii) borrowings on our line of credit, long-term debt obligations and financing leases of \$10,848 (used to finance production of our 3D printing machines) and (iii) preferred unit dividends payable of \$1,437. The increase to our current liabilities was offset by an increase in our current assets mostly due to higher accounts receivable (\$7,078) and inventories (\$3,054) attributed to increased selling and production of 3D printing machines.

Our primary sources of cash have been (i) existing operating cash balances, (ii) additional funding by our majority member (through the demand note payable to member or through equity contributions) (iii) additional external financing obtained through third parties (including both our line of credit and notes payable).

On February 12, 2013, in connection with the completion of our IPO, we received net proceeds of approximately \$91,996. Subsequent to this offering of our common stock, we utilized proceeds of (i) approximately \$9,800 to extinguish certain debt held by us (including extinguishment of the demand note payable to member) and (ii) approximately \$6,800 to acquire certain net assets of our variable interest entities (including the repayment of all debt held by our variable interest entities).

The following table summarizes the significant components of cash flows for each of the years ending December 31:

	2012	2011	2010
Cash used for operating activities	\$ (9,803)	\$ (2,436)	\$ (5,912)
Cash used for investing activities	(1,724)	(1,080)	(1,795)
Cash provided by financing activities	11,003	5,931	7,811
Effect of exchange rate changes on cash and cash equivalents	(170)	60	273
<b>Net change in cash and cash equivalents</b>	<b>\$ (694)</b>	<b>\$ 2,475</b>	<b>\$ 377</b>
Cash and cash equivalents at end of year	\$ 2,802	\$ 3,496	\$ 1,021

**Operating Activities**

Cash used for operating activities in 2012 was \$9,803 compared with \$2,436 in 2011. The increase of \$7,367, or 302.4%, was attributed to increases in net working capital of \$13,544 (mostly increases in accounts receivable and inventories as a result of increased selling and production activity) slightly offset by increases to accounts payable and accrued expenses, also linked to selling and production activity. The increase in net working capital was offset by an increase of cash earnings in 2012 of \$6,177 (net income less non-cash items).

Cash used for operating activities in 2011 was \$2,436 compared with \$5,912 in 2010. The decrease of \$3,476, or 58.8%, was attributed to sources of cash of (i) an increase in deferred revenue and customer prepayments of \$4,377 mostly due to increased prepayments from customers on 3D printing machine sales, (ii) an increase in

---

**Table of Contents**

cash from accounts receivable of \$2,902 as a result of collections of outstanding amounts due and (iii) an increase in amounts attributable to accrued expenses and other liabilities of \$1,076 mostly due to an increase in accrued income taxes. Offsetting these sources were uses of cash of (i) \$2,437 attributed to an increase in the net loss from 2011 compared to 2010, (ii) \$1,982 in increases attributable to inventory (mostly due to additional raw material purchases and one 3D printing machine included in finished goods compared to zero in 2010).

***Investing Activities***

Cash used for investing activities in 2012 was \$1,724 compared with \$1,080 in 2011 and \$1,795 in 2010. The use of cash for each of the three years was attributed to capital expenditures, principally to support the construction of 3D printing machines at our facilities in the United States and Germany.

Although our plans are not definitive, we intend to expand our existing facility in Germany to increase our 3D printing machine manufacturing, PSCs and other administrative facilities located there. Estimated costs of such expansion could range from \$14,000 to \$18,000, and could occur in 2013 or 2014.

We have also indicated that we intend to establish two new PSCs in the second half of 2013. Although our plans are not definitive, we estimate the cost associated with opening such PSCs to range from approximately \$2,000 to \$4,000 for each location.

***Financing Activities***

Cash provided by financing activities in 2012 was \$11,003 compared with \$5,931 in 2011 and \$7,811 in 2010.

The principal sources of cash in 2012 were (i) net borrowings on our line of credit of \$528 to support operations, (ii) net borrowings on the demand note payable to member of \$8,629 to support operations, and (iii) proceeds from long-term debt and financing leases of \$4,707 used to finance 3D printing machine production. Offsetting these sources of cash were long-term debt and financing lease repayments of \$2,063.

At December 31, 2012, we identified that we were not in compliance with the annual cash flow-to-debt service ratio covenant associated with our ExOne building note payable to a bank. We requested and were granted a waiver related to compliance with this covenant through December 31, 2013. Related to our 2012 noncompliance, there were no cross default provisions or related impacts on other lending agreements.

The principal sources of cash in 2011 were (i) net borrowings on the demand note payable to member of \$3,939 to support operations, (ii) proceeds from long-term debt of \$2,398 used to finance 3D printing machine production and (iii) contributions from noncontrolling interests of \$402. Offsetting these sources of cash were long-term debt repayments of \$808.

The principal source of cash in 2010 was the net borrowings on the demand note payable to member of \$12,290 to support operations. Offsetting this source of cash were long-term debt repayments of \$4,479.

At December 31, 2011, we identified that we were not in compliance with the annual minimum equity-to-asset ratio covenant associated with our line of credit. The bank did not take action related to this noncompliance. At December 31, 2012, we were in compliance with this covenant. Related to our 2011 noncompliance, there were no cross default provisions or related impacts on other lending agreements.

On January 23, 2013, we settled an accrued dividend with certain preferred unitholders of the former limited liability company in the amount of approximately \$1,437. Of this amount, approximately \$304 was settled in cash with the remaining \$1,133 converted by the principal preferred unitholder (also the majority member of the former limited liability company) to additional amounts due under the demand note payable to member. On February 14, 2013, we repaid outstanding amounts due on the demand note payable to member of approximately \$9,800 (including accrued interest). Following this repayment, the demand note payable to member was retired. Separately, on February 14, 2013, we repaid \$300 to retire our building note payable with an unrelated party. There were no prepayment penalties or gains or losses associated with this early retirement of debt.

**Table of Contents**

On March 27, 2013, in connection with our acquisition of certain net assets of the Lone Star and TMF variable interest entities, we assumed and repaid all amounts outstanding on Lone Star and TMF debt, including accrued interest, and settled amounts related to certain interest rate swap agreements held by TMF. There were no prepayment penalties or gains or losses associated with this early retirement of debt.

**Contractual Obligations.**

We are required to make future payments under operating lease, license fee, debt and financing lease agreements. At December 31, 2012, a summary of our outstanding contractual obligations is as follows:

	Total	2013	2014-2015	2016-2017	Thereafter
<b>Operating activities:</b>					
Operating leases	\$ 881	\$ 739	\$ 109	\$ 33	\$
License fee obligations	1,051	751	200	100	
Deferred revenue and customer prepayments	4,505	4,281	224		
<b>Financing activities:</b>					
Long-term debt	16,891	11,222	2,682	1,280	1,707
Financing leases	2,869	920	1,379	570	
Interest related to long-term debt and financing leases	1,404	423	499	208	274
<b>Total</b>	<b>\$ 27,601</b>	<b>\$ 18,336</b>	<b>\$ 5,093</b>	<b>\$ 2,191</b>	<b>\$ 1,981</b>

**Operating Leases**

Operating leases consist of various lease agreements of manufacturing facilities, office and warehouse spaces, equipment and vehicles, expiring in various years through 2017.

**License Fee Obligations**

License fee obligations include amounts contractually due to third parties for use of patented technology, expiring in various years through 2016.

**Deferred Revenue and Customer Prepayments**

Deferred revenue and customer prepayments require ExOne to deliver 3D printing machines or other products or services to customers over a specified contract period. While these obligations are not expected to result in cash payments, they represent contractual obligations for which we would be obligated if the specified deliveries could not be made.

**Long-Term Debt**

Long-term debt consists of the following instruments (i) a line of credit held by our German subsidiary; (ii) the demand note payable to our majority member and (iii) the current and noncurrent portion of notes payable used to finance the acquisition of various property and equipment. Maturity of our long-term debt extends to 2027.

**Financing Leases**

Financing leases consist of borrowings associated with sale-leaseback transactions required to be accounted for as financings. Maturity of our financing leases extends to 2017.

**Interest Related to Long-Term Debt and Financing Leases**

Interest related to long-term debt and financing leases is based on interest rates in effect at December 31, 2012, and is calculated on instruments with maturities that extend to 2027.



---

**Table of Contents**

**Off Balance Sheet Arrangements.**

We are not a party to any off balance sheet arrangements.

**Critical Accounting Policies and Estimates.**

The consolidated financial statements are prepared in conformity with accounting principles generally accepted in the United States of America (GAAP). The preparation of these consolidated financial statements requires management 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 inventories (including the allowance for slow moving and obsolete inventory); product warranty reserves; equity-based compensation (including the fair value of common units used to measure equity-based compensation); income taxes (including the valuation allowance on certain deferred tax assets) and future cash flow estimates associated with long-lived assets for purposes of impairment testing. We base our estimates on historical experience and on various other assumptions that are believed to be reasonable, the results of which forms 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.

***Revenue Recognition***

Revenue from the sale of 3D printing machines and related 3D printed parts and materials is recognized upon transfer of title, generally upon shipment. Revenue from the performance of contract services or production services is generally recognized when either the services are performed or the finished product is shipped. Revenue for all deliverables in a sales arrangement is recognized provided that persuasive evidence of a sales arrangement exists, both title and risk of loss have passed to the customer and collection is reasonably assured. Persuasive evidence of a sales arrangement exists upon execution of a written sales agreement or signed purchase order that constitutes a fixed and legally binding commitment between us and our customer. In instances where revenue recognition criteria are not met, amounts are recorded as deferred revenue and customer prepayments in the consolidated balance sheets.

We enter into sales arrangements that may provide for multiple deliverables to a customer. Sales of machines may include consumables, maintenance services, and training and installation. We identify all goods and services that are to be delivered separately under a sales arrangement and allocate revenue to each deliverable based on relative fair values. Fair values are generally established based on the prices charged when sold separately. In general, revenues are separated between machines, consumables, maintenance services and installation and training services. The allocated revenue for each deliverable is then recognized ratably based on relative fair values of the components of the sale. We also evaluate the impact of undelivered items on the functionality of delivered items for each sales transaction and, where appropriate, defer revenue on delivered items when that functionality has been affected. Functionality is determined to be met if the delivered products or services represent a separate earnings process. Revenue from maintenance services as well as installation is recognized at the time of performance.

We provide customers with a standard warranty on all machines generally over a period of twelve months from the date of installation at the customer's site. The warranty is not treated as a separate service because the warranty is an integral part of the sale of the machine. After the initial one year warranty period, we offer our customers optional maintenance contracts. Deferred maintenance service revenue is recognized when the maintenance services are performed since we have historical evidence that indicates that the costs of performing the services under the contract are not incurred on a straight-line basis.

We sell equipment with embedded software to our customers. The embedded software is not sold separately and it is not a significant focus of our marketing effort. We do not provide post-contract customer support specific to the software or incur significant costs that are within the scope of FASB guidance on accounting for software to be leased or sold. Additionally, the functionality that the software provides is marketed as part of the overall

---

## **Table of Contents**

product. The software embedded in the equipment is incidental to the equipment as a whole such that the FASB guidance referenced above is not applicable. Sales of these products are recognized in accordance with FASB guidance on accounting for multiple-element arrangements.

Shipping and handling costs billed to customers for machine sales and sales of consumables are included in revenue in the consolidated statement of operations and other comprehensive loss. Costs incurred by us associated with shipping and handling is included in cost of sales in the consolidated statement of operations and comprehensive loss.

Our terms of sale generally require payment within 30 to 60 days after shipment of a product, although we also recognize that longer payment periods are customary in some countries where we transact business. To reduce credit risk in connection with machine sales, we may, depending upon the circumstances, require certain amounts be prepaid prior to shipment. In some circumstances, we may require payment in full for our products prior to shipment and may require international customers to furnish letters of credit. These prepayments are reported as deferred revenue and customer prepayments in the consolidated balance sheets. Production and contract services are billed on a time-and-materials basis. Services under maintenance contracts are billed to customers upon performance of services in accordance with the contract.

### ***Cash and Cash Equivalents***

We consider all highly liquid instruments with maturities when purchased of three months or less to be cash equivalents. Our policy is to invest cash in excess of short-term operating and debt-service requirements in such cash equivalents. These instruments are stated at cost, which approximates fair value because of the short maturity of the instruments. We maintain cash balances with financial institutions located in the United States, Germany, and Japan. We place our cash with high quality financial institutions and believe our risk of loss is limited; however, at times, account balances may exceed international and federally insured limits. We have not experienced any losses associated with these cash balances.

### ***Accounts Receivable***

Accounts receivable are reported at their net realizable value. Our estimate of the allowance for doubtful accounts related to trade receivables is based on our evaluation of customer accounts with past-due outstanding balances or specific accounts for which we have information that the customer may be unable to meet its financial obligations. Based upon review of these accounts, and management's analysis and judgment, we record a specific allowance for that customer's accounts receivable balance to reduce the outstanding receivable balance to the amount expected to be collected. The allowance is re-evaluated and adjusted periodically as additional information is received that impacts the allowance amount reserved. At December 31, 2012 and 2011, the allowance for doubtful accounts was approximately \$83 and \$43, respectively.

### ***Inventories***

We value all of our inventories at the lower of cost, as determined on the first-in, first-out (FIFO) method or market value. Overhead is allocated to work in progress and finished goods based on normal capacity of our production facilities. Fixed overhead associated with production facilities that are being operated below normal capacity are recognized as a period expense rather than being capitalized as a product cost. An allowance for slow-moving and obsolete inventories is provided based on historical experience and current product demand. These provisions reduce the cost basis of the respective inventory and are recorded as a charge to cost of sales. At December 31, 2012 and 2011, the allowance for slow-moving and obsolete inventories was approximately \$891 and \$1,401, respectively.

### ***Property and Equipment***

Property and equipment are recorded at cost and depreciated on a straight-line basis over the estimated useful lives of the related assets, generally three to twenty-five years. Leasehold improvements are amortized on a straight-line basis over the shorter of (i) their estimated useful lives or (ii) the estimated or contractual lives of the

---

## **Table of Contents**

related leases. Gains or losses from the sale of assets are recognized upon disposal or retirement of the related assets and are generally recorded in other (income) expense net on the statement of consolidated operations and comprehensive loss. Repairs and maintenance are charged to expense as incurred.

We evaluate long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of such assets (asset group) may not be recoverable. Recoverability of assets is determined by comparing the estimated undiscounted net cash flows of the operations related to the assets (asset group) to their carrying amount. An impairment loss would be recognized when the carrying amount of the assets (asset group) exceeds the estimated undiscounted net cash flows. The amount of the impairment loss to be recorded is calculated as the excess of carrying value of assets (asset group) over their fair value, with fair value determined using the best information available, which generally is a discounted cash flow model. The determination of what constitutes an asset group, the associated undiscounted net cash flows, and the estimated useful lives of assets require significant judgments and estimates by management. We recorded no impairment losses during 2012, 2011 or 2010.

### ***Product Warranty Reserves***

Substantially all of our 3D printing machines are covered by a warranty, generally over a period of twelve months from the date of installation at the customer's site. A liability is recorded for future warranty costs in the same period in which the related revenue is recognized. The liability is based on anticipated parts and labor costs using historical experience. We periodically assess the adequacy of the product warranty reserves based on changes in these factors and record 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 our warranty policy in response to industry trends, competition or other external forces, or manufacturing changes that could impact product quality. In the event that we determine that our current or future product repair and replacement costs exceed estimates, an adjustment to these reserves would be charged to cost of sales in the statement of consolidated operations and comprehensive loss in the period such a determination is made. At December 31, 2012 and 2011, product warranty reserves were approximately \$554 and \$117, respectively, and were included in accrued expenses and other current liabilities in the consolidated balance sheets.

### ***Income Taxes***

Prior to reorganization we were organized as a limited liability company. Under the provisions of the Internal Revenue Code and similar state provisions, we were taxed as a partnership and were not liable for income taxes. Instead, earnings and losses were included in the tax returns of our members. Therefore, the consolidated financial statements do not reflect a provision for U.S. federal or state income taxes.

Our subsidiaries in Germany and Japan are taxed as corporations under the taxing regulations of Germany and Japan, respectively. As a result, the consolidated statement of operations and comprehensive loss includes tax expense related to these foreign jurisdictions.

We recognize the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities based on the technical merits of the position. The tax benefits recognized in the financial statements from such positions are then measured based on the largest amount that has a greater than 50% likelihood of being realized upon settlement. Tax benefits that do not meet the more likely than not criteria are recognized when effectively settled, which generally means that the statute of limitations has expired or that appropriate taxing authority has completed its examination even though the statute of limitations remains open. Interest and penalties related to uncertain tax positions are recognized as part of the provision for income taxes and are accrued beginning in the period that such interest and penalties would be applicable under relevant tax law until such time that the related tax benefits are recognized.

We recognize deferred tax assets and liabilities for the differences between the financial statement carrying amounts and the tax basis of assets and liabilities of our wholly-owned subsidiaries in Germany and Japan using

## **Table of Contents**

enacted tax rates in effect in the years in which the differences are expected to reverse. Valuation allowances are established when necessary to reduce foreign deferred tax assets to the amount expected to be realized.

### ***Derivative Financial Instruments***

We are exposed to market risk from changes in interest rates and foreign currency exchange rates, which may adversely affect our results of operations and financial condition. We seek to minimize these risks through regular operating and financing activities and, when we consider it to be appropriate, through the use of derivative financial instruments.

We hold interest rate swaps for the purpose of managing risks related to the variability of future earnings and cash flows caused by changes in interest rates. We have elected not to prepare and maintain the documentation required to qualify for hedge accounting treatment and therefore, all gains and losses (realized or unrealized) related to derivative instruments are recognized as interest expense in the statement of consolidated operations and comprehensive loss. Fair value of the interest rate swaps are reported as accrued expenses and other current liabilities in the consolidated balance sheets. We do not purchase, hold or sell derivative financial instruments for trading or speculative purposes.

We are exposed to credit risk if the counterparties to such transactions are unable to perform their obligations. However, we seek to minimize such risk by entering into transactions with counterparties that are believed to be creditworthy financial institutions.

We held no foreign currency contracts in 2012 or 2011. During 2010, we entered into a foreign currency contract to hedge our exposure arising from the sale of inventory. We recognized a loss of approximately \$76 during 2010 in connection with this transaction and the termination of this contract.

### ***Taxes on Revenue Producing Transactions***

Taxes assessed by governmental authorities on revenue producing transactions, including sales, excise, value added and use taxes, are recorded on a net basis (excluded from revenue) in the consolidated statement of operations and comprehensive loss.

### ***Research and Development***

We are continuously involved in research and development of new methods and technologies relating to our products. All research and development costs are charged to expense as incurred.

### ***Advertising***

Advertising costs are charged to expense as incurred and were not significant for 2012, 2011 or 2010.

### ***Defined Contribution Plan***

We sponsor a defined contribution savings plan under section 401(k) of the Internal Revenue Code. Under the plan, participating employees in the United States may elect to defer a portion of their pre-tax earnings, up to the Internal Revenue Service annual contribution limit. We make matching contributions of 50% of the first 8% of employee contributions, subject to certain Internal Revenue Service limitations. Our matching contributions to the plan were approximately \$90, \$87 and \$57 in 2012, 2011 and 2010, respectively.

### ***Equity-Based Compensation***

We recognize compensation expense for equity-based grants using the straight-line attribution method, in which the expense (net of estimated forfeitures) is recognized ratably over the requisite service period based on the



---

**Table of Contents**

grant date fair value. Fair value of equity-based awards is estimated on the date of grant using the Black-Scholes pricing model. We recognized approximately \$7,735 in equity-based compensation during 2012. There was no equity-based compensation expense recognized during 2011 or 2010.

**Recently Adopted Accounting Guidance.**

Refer to the Recently Adopted Accounting Guidance section of Note 1 to the consolidated financial statements in Part II Item 8 of this Form 10-K.

**Recently Issued Accounting Guidance.**

None.

**Item 7A. Quantitative and Qualitative Disclosures About Market Risk.**

We are exposed to market risk from fluctuations in interest rates and foreign currency exchange rates which may adversely affect our results of operations and financial condition. We seek to minimize these risks through regular operating and financing activities and, when we consider it to be appropriate, through the use of derivative financial instruments. We do not purchase, hold or sell derivative financial instruments for trading or speculative purposes.

***Interest Rates***

Our exposure to market risk for changes in interest rates relates primarily to debt instruments held with variable interest rates. From time to time, we may use derivative financial instruments, including interest rate swaps, collars or options, to manage our exposure to fluctuations in interest rates. At December 31, 2012, we held two interest rate swap agreements which converted the variable interest rates on two equipment notes payable to a fixed rate of 6.80% and 6.68%, respectively. At December 31, 2012, we held approximately \$2,292 in debt instruments with variable rates. A hypothetical interest rate change of 1.0 percentage point, or 100 basis points, on these debt instruments would result in an increase in our annual interest expense of less than \$100.

***Foreign Currency***

The local currency is the functional currency for significant operations outside of the United States. The determination of the functional currency of an operation is made based on the appropriate economic and management indicators.

Foreign currency assets and liabilities are translated into their U.S. dollar equivalents based on year end exchange rates, and are included in members' equity (deficit) as a component of comprehensive loss. Revenues and expenses are translated at average exchange rates. Transaction gains and losses that arise from exchange rate fluctuations are charged to operations as incurred, except for gains and losses associated with intercompany receivables and payables for which settlement is not planned or anticipated in the foreseeable future, which are included in accumulated other comprehensive loss in the consolidated balance sheets.

We transact business globally and are subject to risks associated with fluctuating foreign exchange rates. The geographic areas outside the United States in which we operate are generally not considered to be highly inflationary. Approximately 72.8%, 70.0% and 70.7% of our consolidated revenue was derived from transactions outside the United States for 2012, 2011 and 2010, respectively. This revenue is generated primarily from wholly-owned subsidiaries operating in their respective countries and surrounding geographic areas. This revenue is primarily denominated in each subsidiary's local functional currency, including the Euro and Japanese Yen. A hypothetical change in foreign exchange rates of +/- 10.0% for 2012, would result in an increase (decrease) in revenue of approximately \$2,100. These subsidiaries incur most of their expenses (other than intercompany expenses) in their local functional currencies.

**Table of Contents**

**Item 8. Financial Statements and Supplementary Data.**

	<b>Page</b>
<u>Report of Independent Registered Public Accounting Firm</u>	50
<u>Statement of Consolidated Operations and Comprehensive Loss</u>	51
<u>Consolidated Balance Sheets</u>	52
<u>Statement of Consolidated Cash Flows</u>	53
<u>Statement of Changes in Consolidated Members' Equity (Deficit)</u>	54
<u>Notes to the Consolidated Financial Statements</u>	55
<u>Supplementary Quarterly Financial Information (Unaudited)</u>	75

**Table of Contents**

**Report of Independent Registered Public Accounting Firm**

Board of Directors and Stockholders

The ExOne Company (formerly The Ex One Company, LLC and Subsidiaries)

We have audited the accompanying consolidated balance sheets of The Ex One Company, LLC and Subsidiaries (the Company) as of December 31, 2012 and 2011, and the related consolidated statements of operations and comprehensive loss, members' equity (deficit), and cash flows for the each of the years in the three-year period ended December 31, 2012. These consolidated financial statements are the responsibility of the entity's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). 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. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the consolidated financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of The Ex One Company, LLC and Subsidiaries as of December 31, 2012 and 2011, and the results of their operations and their cash flows for each of the years in the three-year period ended December 31, 2012, in conformity with accounting principles generally accepted in the United States of America.

As disclosed in Note 1 to the consolidated financial statements, the Company reorganized as The ExOne Company on January 1, 2013 and completed an initial public offering of the Company's common stock on February 12, 2013.

Pittsburgh, Pennsylvania

March 29, 2013

**Table of Contents****The ExOne Company and Subsidiaries (formerly The Ex One Company, LLC and Subsidiaries)****Statement of Consolidated Operations and Comprehensive Loss**

(in thousands, except per-unit amounts)

For the years ended December 31,	2012	2011	2010
<b>Revenue</b>	\$ 28,657	\$ 15,290	\$ 13,440
<b>Cost of sales</b>	16,514	11,647	10,374
<b>Gross profit</b>	12,143	3,643	3,066
<b>Operating expenses</b>			
Research and development	1,930	1,531	1,153
Selling, general and administrative (Note 12)	18,285	7,286	5,978
	20,215	8,817	7,131
<b>Loss from operations</b>	(8,072)	(5,174)	(4,065)
<b>Other (income) expense</b>			
Interest expense	842	1,570	1,114
Other (income) expense net	(221)	(158)	(197)
	621	1,412	917
<b>Loss before income taxes</b>	(8,693)	(6,586)	(4,982)
<b>Provision for income taxes (Note 15)</b>	995	1,031	198
<b>Net loss</b>	(9,688)	(7,617)	(5,180)
<b>Less: Net income attributable to noncontrolling interests</b>	480	420	328
<b>Net loss attributable to ExOne</b>	\$ (10,168)	\$ (8,037)	\$ (5,508)
<b>Net loss attributable to ExOne per common unit (Note 2):</b>			
Basic	\$ (1.16)	\$ (0.80)	\$ (0.55)
Diluted	\$ (1.16)	\$ (0.80)	\$ (0.55)
<b>Comprehensive loss:</b>			
Net loss attributable to ExOne	\$ (10,168)	\$ (8,037)	\$ (5,508)
Other comprehensive income (loss):			
Foreign currency translation adjustments	46	(107)	(144)
<b>Comprehensive loss</b>	(10,122)	(8,144)	(5,652)
<b>Less: Comprehensive loss attributable to noncontrolling interests</b>			
<b>Comprehensive loss attributable to ExOne</b>	\$ (10,122)	\$ (8,144)	\$ (5,652)

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



**Table of Contents****The ExOne Company and Subsidiaries (formerly The Ex One Company, LLC and Subsidiaries)****Consolidated Balance Sheets**

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

December 31,	2012	2011
<b>Assets</b>		
Current assets:		
Cash and cash equivalents	\$ 2,802	\$ 3,496
Accounts receivable net	8,413	1,335
Inventories net (Note 3)	7,485	4,431
Prepaid expenses and other current assets (Note 4)	1,543	854
<b>Total current assets</b>	<b>20,243</b>	<b>10,116</b>
Property and equipment net (Note 5)	12,467	7,919
(Including amounts attributable to consolidated variable interest entities of \$5,567 and \$5,798 at December 31, 2012 and 2011, respectively)		
Deferred income taxes (Note 15)	178	374
Other noncurrent assets (Note 4)	187	206
<b>Total assets</b>	<b>\$ 33,075</b>	<b>\$ 18,615</b>
<b>Liabilities</b>		
Current liabilities:		
Line of credit (Note 7)	\$ 528	\$
Demand note payable to member (Note 8)	8,666	
Current portion of long-term debt (Note 9)	2,028	1,294
(Including amounts attributable to consolidated variable interest entities of \$1,913 and \$1,294 at December 31, 2012 and 2011, respectively)		
Current portion of financing leases (Note 10)	920	
Accounts payable	2,451	864
Accrued expenses and other current liabilities (Note 6)	4,436	3,625
Preferred unit dividends payable	1,437	
Deferred income taxes (Note 15)	178	374
Deferred revenue and customer prepayments	4,281	4,938
<b>Total current liabilities</b>	<b>24,925</b>	<b>11,095</b>
Long-term debt net of current portion (Note 9)	5,669	4,135
(Including amounts attributable to consolidated variable interest entities of \$3,150 and \$4,135 at December 31, 2012 and 2011, respectively)		
Financing leases net of current portion (Note 10)	1,949	
Redeemable preferred units (Note 11)		18,984
Other noncurrent liabilities (Note 6)	491	
<b>Total liabilities</b>	<b>33,034</b>	<b>34,214</b>
Commitments and contingencies (Note 14)		
<b>Members equity (deficit)</b>		
ExOne members deficit:		
Preferred units, \$1.00 par value, 18,983,602 issued and outstanding (Note 11)	18,984	
Common units, \$1.00 par value, 10,000,000 issued and outstanding (Note 11)	10,000	10,000
Members deficit	(31,355)	(27,485)

Edgar Filing: ExOne Co - Form 10-K

Accumulated other comprehensive loss	(174)	(220)
<b>Total ExOne members deficit</b>	<b>(2,545)</b>	<b>(17,705)</b>
Noncontrolling interests	2,586	2,106
<b>Total members equity (deficit)</b>	<b>41</b>	<b>(15,599)</b>
<b>Total liabilities and members equity (deficit)</b>	<b>\$ 33,075</b>	<b>\$ 18,615</b>

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

**Table of Contents****The ExOne Company and Subsidiaries (formerly The Ex One Company, LLC and Subsidiaries)****Statement of Consolidated Cash Flows**

(in thousands)

For the years ended December 31,	2012	2011	2010
<b>Operating activities</b>			
Net loss	\$ (9,688)	\$ (7,617)	\$ (5,180)
Adjustments to reconcile net loss to cash used for operations:			
Depreciation (Note 5)	1,683	1,170	1,072
Equity-based compensation (Note 12)	7,735		
Changes in assets and liabilities, excluding effects of foreign currency translation adjustments:			
(Increase) decrease in accounts receivable	(7,077)	1,240	(1,662)
(Increase) decrease in inventories	(4,825)	(1,368)	614
(Increase) decrease in prepaid expenses and other assets	(330)	(438)	293
Increase (decrease) in accounts payable	1,575	(213)	(386)
Increase (decrease) in accrued expenses and other liabilities	1,528	951	(125)
Increase (decrease) in deferred revenue and customer prepayments	(404)	3,839	(538)
<b>Cash used for operating activities</b>	<b>(9,803)</b>	<b>(2,436)</b>	<b>(5,912)</b>
<b>Investing activities</b>			
Capital expenditures	(1,724)	(1,080)	(1,795)
<b>Cash used for investing activities</b>	<b>(1,724)</b>	<b>(1,080)</b>	<b>(1,795)</b>
<b>Financing activities</b>			
Net change in line of credit borrowings (Note 7)	528		
Net change in demand note payable to member (Note 8)	8,629	3,939	12,290
Proceeds from long-term debt (Note 9)	1,194	2,398	
Proceeds from financing leases (Note 10)	3,513		
Payments on long-term debt (Note 9)	(1,626)	(808)	(4,479)
Payments on financing leases (Note 10)	(437)		
Deferred offering costs (Note 4)	(720)		
Deferred financing costs	(78)		
Contribution from noncontrolling interests		402	
<b>Cash provided by financing activities</b>	<b>11,003</b>	<b>5,931</b>	<b>7,811</b>
<b>Effect of exchange rate changes on cash and cash equivalents</b>	<b>(170)</b>	<b>60</b>	<b>273</b>
Net change in cash and cash equivalents	(694)	2,475	377
Cash and cash equivalents at beginning of year	3,496	1,021	644
<b>Cash and cash equivalents at end of year</b>	<b>\$ 2,802</b>	<b>\$ 3,496</b>	<b>\$ 1,021</b>
<b>Supplemental disclosure of cash flow information</b>			
Cash paid for interest	\$ 407	\$ 174	\$ 244
Cash paid for income taxes	\$ 1,354	\$	\$
<b>Supplemental disclosure of noncash investing and financing activities</b>			
Property and equipment acquired through financing arrangements	\$ 2,700	\$	\$



## Edgar Filing: ExOne Co - Form 10-K

Transfer of inventories to property and equipment for internal use	\$ 2,001	\$	\$
Transfer of property and equipment to inventories for sale	\$ (202)	\$	\$
Reclassification of redeemable preferred units to preferred units (Note 11)	\$ 18,984	\$	\$
Conversion of demand note payable to member to redeemable preferred units (Note 11)	\$	\$ 18,984	\$
Preferred unit dividends declared but unpaid	\$ 1,437	\$	\$

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

**Table of Contents****The ExOne Company and Subsidiaries (formerly The Ex One Company, LLC and Subsidiaries)****Statement of Changes in Consolidated Members Equity (Deficit)**

(in thousands)

	ExOne unitholders			Accumulated other comprehensive income (loss)	Noncontrolling interests	Total members equity (deficit)
	Preferred units	Common units	Members deficit			
<b>Balance at December 31, 2009</b>	\$	\$ 10,000	\$ (13,940)	\$ 31	\$ 956	\$ (2,953)
Net (loss) income			(5,508)		328	(5,180)
Other comprehensive loss				(144)		(144)
<b>Balance at December 31, 2010</b>		10,000	(19,448)	(113)	1,284	(8,277)
Net (loss) income			(8,037)		420	(7,617)
Other comprehensive loss				(107)		(107)
Contribution from noncontrolling interests					402	402
<b>Balance at December 31, 2011</b>		10,000	(27,485)	(220)	2,106	(15,599)
Net (loss) income			(10,168)		480	(9,688)
Other comprehensive income				46		46
Equity-based compensation (Note 12)			7,735			7,735
Preferred unit reclassification (Note 11)	18,984					18,984
Preferred unit dividends			(1,437)			(1,437)
<b>Balance at December 31, 2012</b>	\$ 18,984	\$ 10,000	\$ (31,355)	\$ (174)	\$ 2,586	\$ 41

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

---

**Table of Contents**

**The ExOne Company and Subsidiaries (formerly The Ex One Company, LLC and Subsidiaries)**

**Notes to the Consolidated Financial Statements**

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

**Note 1. Summary of Significant Accounting Policies**

***Basis of Presentation and Principles of Consolidation***

The ExOne Company and Subsidiaries (ExOne), formerly The Ex One Company, LLC, is a corporation organized under the laws of the state of Delaware. Refer to Note 19 for description of the reorganization of The Ex One Company, LLC to The ExOne Company effective January 1, 2013. The consolidated financial statements include the accounts of ExOne, its wholly-owned subsidiaries, ExOne Americas LLC (United States), ExOne GmbH (Germany) and Ex One KK (Japan), and two variable interest entities in which ExOne is the primary beneficiary, Lone Star Metal Fabrication, LLC (Lone Star) and Troy Metal Fabricating, LLC (TMF). Collectively, the consolidated group is referred to as the Company.

At December 31, 2012 and 2011, ExOne leased property and equipment from Lone Star and TMF. ExOne does not have an ownership interest in Lone Star or TMF. ExOne is the primary beneficiary of Lone Star and TMF in accordance with the guidance issued by the Financial Accounting Standards Board (FASB) on the consolidation of variable interest entities (VIEs), as ExOne guarantees certain long-term debt of both Lone Star and TMF and governs these entities through common ownership. This guidance requires certain VIEs to be consolidated when an enterprise has the power to direct the activities of the VIE that most significantly impact VIE economic performance and who has the obligation to absorb losses or the right to receive benefits of the VIE that could potentially be significant to the VIE. The consolidated financial statements therefore include the accounts of Lone Star and TMF. The assets of Lone Star and TMF can only be used to settle obligations of Lone Star and TMF, and the creditors of Lone Star and TMF do not have recourse to the general credit of ExOne.

The consolidated financial statements of the Company are prepared in conformity with accounting principles generally accepted in the United States of America (GAAP). All material intercompany transactions and balances have been eliminated in consolidation. Certain amounts in previously issued consolidated financial statements have been reclassified to conform to the 2012 presentation.

***Going Concern***

The Company has incurred net losses of approximately \$9,688, \$7,617 and \$5,180 for 2012, 2011 and 2010, respectively. Prior to reorganization (Note 19) the Company operated as a limited liability company and was substantially supported by the continued financial support provided by its majority member. These conditions raise substantial doubt as to the Company's ability to continue as a going concern. On February 12, 2013, in connection with the completion of its initial public offering (IPO) (Note 19) the Company received unrestricted net proceeds from the sale of its common stock of approximately \$91,996. Management believes that the unrestricted net proceeds obtained through this transaction will be sufficient to support the Company's operations through at least January 1, 2014 (the measurement period for such determination), and no longer believes substantial doubt as to the Company's ability to continue as a going concern to exist.

***Use of Estimates***

The preparation of these 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 inventories (including the allowance for slow moving and obsolete inventory); product warranty reserves; equity-based compensation (including the fair value of the Company's common units used to measure equity-based compensation); income taxes (including the valuation

---

**Table of Contents**

allowance on certain deferred tax assets) and future cash flow estimates associated with long-lived assets for purposes of impairment testing. The Company bases its estimates on historical experience and on various other assumptions that are believed to be reasonable, the results of which forms 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.

***Foreign Currency***

The local currency is the functional currency for significant operations outside of the United States. The determination of the functional currency of an operation is made based upon the appropriate economic and management indicators.

Foreign currency assets and liabilities are translated into their U.S. dollar equivalents based upon year end exchange rates, and are included in members' equity (deficit) as a component of comprehensive loss. Revenues and expenses are translated at average exchange rates. Transaction gains and losses that arise from exchange rate fluctuations are charged to operations as incurred, except for gains and losses associated with intercompany receivables and payables for which settlement is not planned or anticipated in the foreseeable future, which are included in other comprehensive income (loss) in the consolidated statement of operations and comprehensive loss.

The Company transacts business globally and is subject to risks associated with fluctuating foreign exchange rates. Approximately 72.8%, 70.0% and 70.7% of the consolidated revenue of the Company was derived from transactions outside the United States for 2012, 2011 and 2010, respectively. This revenue is generated primarily from wholly-owned subsidiaries operating in their respective countries and surrounding geographic areas. This revenue is primarily denominated in each subsidiary's local functional currency, including the Euro and Japanese Yen.

***Revenue Recognition***

Revenue from the sale of 3D printing machines and related 3D printed parts and materials is recognized upon transfer of title, generally upon shipment. Revenue from the performance of contract services or production services is generally recognized when either the services are performed or the finished product is shipped. Revenue for all deliverables in a sales arrangement is recognized provided that persuasive evidence of a sales arrangement exists, both title and risk of loss have passed to the customer and collection is reasonably assured. Persuasive evidence of a sales arrangement exists upon execution of a written sales agreement or signed purchase order that constitutes a fixed and legally binding commitment between the Company and its customer. In instances where revenue recognition criteria are not met, amounts are recorded as deferred revenue and customer prepayments in the consolidated balance sheets.

The Company enters into sales arrangements that may provide for multiple deliverables to a customer. Sales of machines may include consumables, maintenance services, and training and installation. The Company identifies all goods and services that are to be delivered separately under a sales arrangement and allocates revenue to each deliverable based on relative fair values. Fair values are generally established based on the prices charged when sold separately by the Company. In general, revenues are separated between machines, consumables, maintenance services and installation and training services. The allocated revenue for each deliverable is then recognized ratably based on relative fair values of the components of the sale. The Company also evaluates the impact of undelivered items on the functionality of delivered items for each sales transaction and, where appropriate, defers revenue on delivered items when that functionality has been affected. Functionality is determined to be met if the delivered products or services represent a separate earnings process. Revenue from maintenance services as well as installation is recognized at the time of performance.

The Company provides customers with a standard warranty on all machines generally over a period of twelve months from the date of installation at the customer's site. The warranty is not treated as a separate service.

## **Table of Contents**

because the warranty is an integral part of the sale of the machine. After the initial one year warranty period, the Company offers its customers optional maintenance contracts. Deferred maintenance service revenue is recognized when the maintenance services are performed since the Company has historical evidence that indicates that the costs of performing the services under the contract are not incurred on a straight-line basis.

The Company sells equipment with embedded software to its customers. The embedded software is not sold separately and it is not a significant focus of the Company's marketing effort. The Company does not provide post-contract customer support specific to the software or incur significant costs that are within the scope of FASB guidance on accounting for software to be leased or sold. Additionally, the functionality that the software provides is marketed as part of the overall product. The software embedded in the equipment is incidental to the equipment as a whole such that the FASB guidance referenced above is not applicable. Sales of these products are recognized in accordance with FASB guidance on accounting for multiple-element arrangements.

Shipping and handling costs billed to customers for machine sales and sales of consumables are included in revenue in the consolidated statement of operations and other comprehensive loss. Costs incurred by the Company associated with shipping and handling are included in cost of sales in the consolidated statement of operations and comprehensive loss.

The Company's terms of sale generally require payment within 30 to 60 days after shipment of a product, although the Company also recognizes that longer payment periods are customary in some countries where it transacts business. To reduce credit risk in connection with machine sales, the Company may, depending upon the circumstances, require certain amounts be prepaid prior to shipment. In some circumstances, the Company may require payment in full for its products prior to shipment and may require international customers to furnish letters of credit. These prepayments are reported as deferred revenue and customer prepayments in the consolidated balance sheets. Production and contract services are billed on a time-and-materials basis. Services under maintenance contracts are billed to customers upon performance of services in accordance with the contract.

### ***Cash and Cash Equivalents***

The Company considers all highly liquid instruments with maturities when purchased of three months or less to be cash equivalents. The Company's policy is to invest cash in excess of short-term operating and debt-service requirements in such cash equivalents. These instruments are stated at cost, which approximates fair value because of the short maturity of the instruments. The Company maintains cash balances with financial institutions located in the United States, Germany, and Japan. The Company places its cash with high quality financial institutions and believes its risk of loss is limited; however, at times, account balances may exceed international and federally insured limits. The Company has not experienced any losses associated with these cash balances.

### ***Accounts Receivable***

Accounts receivable are reported at their net realizable value. The Company's estimate of the allowance for doubtful accounts related to trade receivables is based on the Company's evaluation of customer accounts with past-due outstanding balances or specific accounts for which it has information that the customer may be unable to meet its financial obligations. Based upon review of these accounts, and management's analysis and judgment, the Company records a specific allowance for that customer's accounts receivable balance to reduce the outstanding receivable balance to the amount expected to be collected. The allowance is re-evaluated and adjusted periodically as additional information is received that impacts the allowance amount reserved. At December 31, 2012 and 2011, the allowance for doubtful accounts was approximately \$83 and \$43, respectively.

---

## **Table of Contents**

### ***Inventories***

The Company values all of its inventories at the lower of cost, as determined on the first-in, first-out (FIFO) method or market value. Overhead is allocated to work in progress and finished goods based upon normal capacity of the Company's production facilities. Fixed overhead associated with production facilities that are being operated below normal capacity are recognized as a period expense rather than being capitalized as a product cost. An allowance for slow-moving and obsolete inventories is provided based on historical experience and current product demand. These provisions reduce the cost basis of the respective inventory and are recorded as a charge to cost of sales. At December 31, 2012 and 2011, the allowance for slow-moving and obsolete inventories was approximately \$891 and \$1,401, respectively.

### ***Property and Equipment***

Property and equipment are recorded at cost and depreciated on a straight-line basis over the estimated useful lives of the related assets, generally three to twenty-five years. Leasehold improvements are amortized on a straight-line basis over the shorter of (i) their estimated useful lives or (ii) the estimated or contractual lives of the related leases. Gains or losses from the sale of assets are recognized upon disposal or retirement of the related assets and are generally recorded in other (income) expense net on the statement of consolidated operations and comprehensive loss. Repairs and maintenance are charged to expense as incurred.

The Company evaluates long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of such assets (asset group) may not be recoverable. Recoverability of assets is determined by comparing the estimated undiscounted net cash flows of the operations related to the assets (asset group) to their carrying amount. An impairment loss would be recognized when the carrying amount of the assets (asset group) exceeds the estimated undiscounted net cash flows. The amount of the impairment loss to be recorded is calculated as the excess of carrying value of assets (asset group) over their fair value, with fair value determined using the best information available, which generally is a discounted cash flow model. The determination of what constitutes an asset group, the associated undiscounted net cash flows, and the estimated useful lives of assets require significant judgments and estimates by management. No impairment loss was recorded by the Company during 2012, 2011 or 2010.

### ***Product Warranty Reserves***

Substantially all of the Company's 3D printing machines are covered by a warranty, generally over a period of twelve months from the date of installation at the customer's site. A liability is recorded for future warranty costs in the same period in which the related revenue is recognized. The liability is based upon anticipated parts and labor costs using historical experience. 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 statement of consolidated operations and comprehensive loss in the period such a determination is made. At December 31, 2012 and 2011, product warranty reserves were approximately \$554 and \$117, respectively, and were included in accrued expenses and other current liabilities in the consolidated balance sheets.

### ***Income Taxes***

Prior to reorganization (Note 19), the Company was organized as a limited liability company. Under the provisions of the Internal Revenue Code and similar state provisions, the Company was taxed as a partnership and was not liable for income taxes. Instead, earnings and losses were included in the tax returns of its members. Therefore, the consolidated financial statements do not reflect a provision for U.S. federal or state income taxes.

---

## **Table of Contents**

The Company's subsidiaries in Germany and Japan are taxed as corporations under the taxing regulations of Germany and Japan, respectively. As a result, the consolidated statement of operations and comprehensive loss includes tax expense related to these foreign jurisdictions. Any undistributed earnings are intended to be permanently reinvested in the respective subsidiaries.

The Company recognizes the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities based upon the technical merits of the position. The tax benefits recognized in the financial statements from such positions are then measured based upon the largest amount that has a greater than 50% likelihood of being realized upon settlement. Tax benefits that do not meet the more likely than not criteria are recognized when effectively settled, which generally means that the statute of limitations has expired or that appropriate taxing authority has completed its examination even through the statute of limitations remains open. Interest and penalties related to uncertain tax positions are recognized as part of the provision for income taxes and are accrued beginning in the period that such interest and penalties would be applicable under relevant tax law until such time that the related tax benefits are recognized.

The Company recognizes deferred tax assets and liabilities for the differences between the financial statement carrying amounts and the tax basis of assets and liabilities of the Company's wholly-owned subsidiaries in Germany and Japan using enacted tax rates in effect in the years in which the differences are expected to reverse. Valuation allowances are established when necessary to reduce foreign deferred tax assets to the amount expected to be realized (Note 15).

### ***Derivative Financial Instruments***

The Company is exposed to market risk from changes in interest rates and foreign currency exchange rates, which may adversely affect its results of operations and financial condition. The Company seeks to minimize these risks through regular operating and financing activities and, when the Company considers it to be appropriate, through the use of derivative financial instruments.

The Company holds interest rate swaps for the purpose of managing risks related to the variability of future earnings and cash flows caused by changes in interest rates. The Company has elected not to prepare and maintain the documentation required to qualify for hedge accounting treatment and therefore, all gains and losses (realized or unrealized) related to derivative instruments are recognized as interest expense in the statement of consolidated operations and comprehensive loss. Fair value of the interest rate swaps are reported as accrued expenses and other current liabilities in the consolidated balance sheets. The Company does not purchase, hold or sell derivative financial instruments for trading or speculative purposes.

The Company is exposed to credit risk if the counterparties to such transactions are unable to perform their obligations. However, the Company seeks to minimize such risk by entering into transactions with counterparties that are believed to be creditworthy financial institutions.

The Company held no foreign currency contracts in 2012 or 2011. During 2010, the Company entered into a foreign currency contract to hedge its exposure arising from the sale of inventory. The Company recognized a loss of approximately \$76 during 2010 in connection with this transaction and the termination of this contract.

### ***Taxes on Revenue Producing Transactions***

Taxes assessed by governmental authorities on revenue producing transactions, including sales, excise, value added and use taxes, are recorded on a net basis (excluded from revenue) in the consolidated statement of operations and comprehensive loss.

### ***Research and Development***

The Company is continuously involved in research and development of new methods and technologies relating to its products. All research and development costs are charged to expense as incurred.

---

**Table of Contents**

***Advertising***

Advertising costs are charged to expense as incurred, and were not significant for 2012, 2011 or 2010.

***Defined Contribution Plan***

The Company sponsors a defined contribution savings plan under section 401(k) of the Internal Revenue Code. Under the plan, participating employees in the United States may elect to defer a portion of their pre-tax earnings, up to the Internal Revenue Service's annual contribution limit. The Company makes matching contributions of 50% of the first 8% of employee contributions, subject to certain Internal Revenue Service limitations. The Company's matching contributions to the plan were approximately \$90, \$87 and \$57 in 2012, 2011 and 2010, respectively.

***Equity-Based Compensation***

The Company recognizes compensation expense for equity-based grants using the straight-line attribution method, in which the expense (net of estimated forfeitures) is recognized ratably over the requisite service period based on the grant date fair value. Fair value of equity-based awards is estimated on the date of grant using the Black-Scholes pricing model. The Company recognized approximately \$7,735 in equity-based compensation during 2012 (Note 12). There was no equity-based compensation expense recognized during 2011 or 2010.

***Recently Adopted Accounting Guidance***

On January 1, 2012, ExOne adopted changes issued by the FASB to conform existing guidance regarding fair value measurement and disclosure between GAAP and International Financial Reporting Standards. These changes both clarify the FASB's intent about the application of existing fair value measurement and disclosure requirements and amend certain principles or requirements for measuring fair value or for disclosing information about fair value measurements. The clarifying changes relate to the application of the highest and best use and valuation premise concepts, measuring the fair value of an instrument classified in a reporting entity's equity, and disclosure of quantitative information about unobservable inputs used for Level 3 fair value measurements. The amendments relate to measuring the fair value of financial instruments that are managed within a portfolio; application of premiums and discounts in a fair value measurement; and additional disclosures concerning the valuation processes used and sensitivity of the fair value measurement to changes in unobservable inputs for those items categorized as Level 3, a reporting entity's use of a nonfinancial asset in a way that differs from the asset's highest and best use, and the categorization by level in the fair value hierarchy for items required to be measured at fair value for disclosure purposes only. Other than the additional disclosure requirements (see Note 16), the adoption of these changes had no impact on the consolidated financial statements.

On January 1, 2012, ExOne adopted changes issued by the FASB to the presentation of comprehensive income (loss). These changes give an entity the option to present the total of comprehensive income (loss), the components of net income (loss), and the components of other comprehensive income (loss) either in a single continuous statement or in two separate but consecutive statements. The option to present components of other comprehensive income (loss) as part of the statement of changes in members' equity was eliminated. The items that must be reported in other comprehensive income (loss) or when an item of other comprehensive income (loss) must be reclassified to net income (loss) were not changed. Additionally, no changes were made to the calculation and presentation of earnings per share (unit). The Company elected to present the single continuous statement option. Other than the change in presentation, the adoption of these changes had no impact on the consolidated financial statements.

**Note 2. Computation of Net Loss Attributable to ExOne Per Common Unit**

The Company presents basic and diluted loss per common unit amounts. Basic loss per unit is calculated by dividing net loss available to ExOne common unitholders by the weighted average number of common units



**Table of Contents**

outstanding during the applicable period. Diluted loss per unit is calculated by dividing net loss available to ExOne common unitholders by the weighted average number of common and common equivalent units outstanding during the applicable period.

As the Company has incurred a net loss in 2012, 2011 and 2010, the conversion of the preferred units, as described in Note 11, has an anti-dilutive effect and is therefore excluded from the calculation below.

	2012	2011	2010
Net loss attributable to ExOne	\$ (10,168)	\$ (8,037)	\$ (5,508)
Less: Preferred unit dividends declared	(1,437)		
Net loss available to ExOne common unitholders	\$ (11,605)	\$ (8,037)	\$ (5,508)
Weighted average shares outstanding (basic and diluted)	10,000,000	10,000,000	10,000,000
Net loss attributable to ExOne per common unit:			
Basic	\$ (1.16)	\$ (0.80)	\$ (0.55)
Diluted	\$ (1.16)	\$ (0.80)	\$ (0.55)

**Note 3. Inventories**

Inventories consist of the following at December 31:

	2012	2011
Raw materials and components	\$ 4,892	\$ 2,137
Work in process	2,098	1,694
Finished goods	495	600
	\$ 7,485	\$ 4,431

At December 31, 2012 and 2011, the allowance for slow-moving and obsolete inventories was approximately \$891 and \$1,401, respectively, and has been reflected as a reduction to inventories.

**Note 4. Prepaid Expenses and Other Current Assets**

Prepaid expenses and other current assets consist of the following at December 31:

	2012	2011
Deferred offering costs	\$ 712	\$
Value-added taxes (VAT) receivable		140
Amounts due from related parties	38	396
Vendor deposits	559	
Other	234	318
	\$ 1,543	\$ 854

**Table of Contents****Note 5. Property and Equipment**

Property and equipment consist of the following at December 31:

	2012	2011	Useful Life (in years)
Land	\$ 778	\$ 178	
Buildings and related improvements	4,941	2,215	25
Machinery and equipment	9,674	8,087	3-7
Computer equipment and software	971	724	3-5
Other	479	319	3-7
	16,843	11,523	
Less: Accumulated depreciation	(5,118)	(3,714)	
	11,725	7,809	
Construction-in-progress	742	110	
Property and equipment net	\$ 12,467	\$ 7,919	

At December 31, 2012 and 2011, property and equipment net, includes \$5,567 and \$5,798 in assets held by variable interest entities (Note 1).

Machinery and equipment includes leased assets of approximately \$1,160 at December 31, 2012. There were no leased assets included in property and equipment net at December 31, 2011.

Depreciation expense was approximately \$1,683, \$1,170 and \$1,072 in 2012, 2011 and 2010, respectively.

On March 27, 2013, in connection with the acquisition of certain net assets of the Lone Star and TMF variable interest entities (Note 19), the Company acquired all of the property and equipment associated with the variable interest entities (see description above).

**Note 6. Accrued Expenses and Other Current Liabilities**

Accrued expenses and other current liabilities consist of the following at December 31:

	2012	2011
Accrued license fees	\$ 748	\$ 1,183
Accrued payroll and related costs	1,367	705
Accrued income taxes	457	956
Value-added taxes (VAT) and other taxes payable	414	124
Product warranty reserves	554	117
Liability for uncertain tax positions	416	264
Other	480	276
	\$ 4,436	\$ 3,625

**Note 7. Line of Credit**

The Company has a line of credit and security agreement with a German bank collateralized by certain assets of the Company and guaranteed by the majority member of the Company for approximately \$2,000 ( 1,500). Of this amount, approximately \$1,100 ( 800) is available for short-term borrowings or cash advances (overdrafts). Both short-term borrowings and overdrafts are subject to variable interest rates as determined by the bank. At December 31, 2012, interest rates were 1.82% for short-term borrowings and 6.20% for overdrafts. There is no commitment fee

associated with this agreement. At December 31, 2012, the Company had outstanding short-term

**Table of Contents**

borrowings of \$528 ( 400). At December 31, 2011, there were no short-term borrowings outstanding. At December 31, 2012 and 2011, there were no outstanding overdraft amounts.

The line of credit agreement is subject to an annual minimum equity-to-asset ratio covenant. At December 31, 2012, the Company was in compliance with this covenant. At December 31, 2011, the Company was not in compliance with this covenant. The bank did not take action related to this noncompliance. Related to the 2011 noncompliance, there were no cross default provisions or related impacts on other lending agreements.

Amounts in excess of the amounts available for short-term borrowings and overdrafts are available for additional bank transactions requiring security (i.e. bank guarantees, leasing, letters of credit, etc.). Amounts covered under the security agreement accrue interest at 1.75%. There is no charge for unused amounts under the security agreement. At December 31, 2012 and 2011, the Company had \$757 ( 573) and \$231 ( 178), respectively, in transactions guaranteed by the security agreement.

**Note 8. Demand Note Payable to Member**

During 2012, the Company received cash advances to support current operations from an entity controlled by the Company's majority member. These advances accrued interest at 8.0% annually and were payable on demand. The Company formalized these cash advances in the form of a line of credit with the entity during 2012. At December 31, 2012, the line of credit balance outstanding on these advances, including accrued interest, was approximately \$8,666. On February 14, 2013, amounts payable on the line of credit, including accrued interest, were paid in-full and the line of credit agreement was retired. Refer to Note 19.

During 2011, the Company received cash advances to support current operations from an entity controlled by the Company's majority member. These advances accrued interest at 8.0% annually and were payable on demand. At December 30, 2011, the outstanding balance on these advances, including accrued interest, was approximately \$18,984. On December 30, 2011, the Company entered into a debt conversion agreement with the Company's majority member which effectively converted the \$18,984 to redeemable preferred units in the Company. Refer to Note 11.

**Table of Contents****Note 9. Long-Term Debt**

Long-term debt consists of the following at December 31:

	2012	2011
<b>ExOne</b>		
Building note payable to a bank, with monthly payments including interest at 4.3% through May 2017 and subsequently, the monthly average yield on U.S. Treasury Securities plus 3.25% for the remainder of the term through May 2027.	\$ 2,334	\$
Building note payable to an unrelated entity, with monthly payments including interest at 6.0% through June 2014.	300	
<b>Lone Star Metal Fabrication, LLC</b>		
Building note payable to a bank, with monthly payments including interest at 7.0% through July 2014.	727	765
Equipment note payable to a bank, with monthly payments including interest at 7.0% through July 2014.		420
<b>Troy Metal Fabricating, LLC</b>		
Equipment note payable to a bank, with monthly payments including interest at one-month BBA LIBOR plus 3.0% (3.21% at December 31, 2012) through December 2017.	1,193	
Equipment note payable to a bank, with monthly payments including interest at 4.83% through December 2016.	1,056	1,291
Equipment line of credit to a bank, converted to term debt in January 2012; monthly payments including interest at one-month BBA LIBOR plus 2.75% (2.96% at December 31, 2012) through December 2016.	886	1,108
Building note payable to a bank, with monthly payments including interest at one-month BBA LIBOR plus 2.45% (2.66% at December 31, 2012) through April 2013. Interest is fixed at 6.80% under an interest rate swap (see below).	760	781
Equipment note payable to a bank, with monthly payments including interest at one-month BBA LIBOR plus 2.75% (2.96% at December 31, 2012) through January 2014. Interest is fixed at 6.68% under an interest rate swap (see below).	228	433
Equipment note payable to a bank, with monthly payments including interest at one-month BBA LIBOR plus 2.75% (2.96% at December 31, 2012) through April 2013.	213	631
	7,697	5,429
Less: Current portion of long-term debt	2,028	1,294
	\$ 5,669	\$ 4,135

All long-term debt of Lone Star and TMF is guaranteed by the Company and either the majority member of the Company or related parties under control of the majority member of the Company, and is collateralized by the related buildings and equipment.

In December 2012, Lone Star repaid its equipment note payable in-full. There were no prepayment penalties or gains or losses associated with this early retirement of debt.

In December 2012, TMF entered into an equipment note payable to a bank for approximately \$1,200, with monthly payments including interest at one-month BBA LIBOR plus 3.0% (3.21% at December 31, 2012) through December 2017.

At December 31, 2012, the Company identified that it was not in compliance with the annual cash flow-to-debt service ratio covenant associated with the ExOne building note payable to a bank. The Company requested and was granted a waiver related to compliance with this covenant through December 31, 2013. Related to the 2012 noncompliance, there were no cross default provisions or related impacts on other lending agreements.

**Table of Contents**

Future maturities of long-term debt at December 31, 2012, are approximately as follows:

2013	\$ 2,028
2014	1,829
2015	853
2016	878
2017	402
Thereafter	1,707
	<b>\$ 7,697</b>

On February 14, 2013, the Company repaid the ExOne building note payable to an unrelated entity (Note 19). There were no prepayment penalties or gains or losses associated with this early retirement of debt.

On March 27, 2013, in connection with the acquisition of certain net assets of the Lone Star and TMF variable interest entities (Note 19), the Company assumed and repaid all amounts outstanding on Lone Star and TMF debt, including accrued interest, and settled amounts related to certain interest rate swap agreements held by TMF (see description below). There were no prepayment penalties or gains or losses associated with this early retirement of debt or the related interest rate swap agreements.

In June 2008, the Company, through TMF, entered into certain interest rate swap agreements with a bank. The Company utilizes the interest rate swaps for the purpose of managing risks related to the variability of future earnings and cash flows caused by changes in interest rates. Under the terms of the agreements, the Company agrees to pay interest at the fixed rates and the Company receives variable interest from the counterparty.

The significant terms of interest rate swap agreements at December 31, 2012 and 2011, are as follows:

	<b>2012</b>	
	TMF building note payable	TMF equipment note payable
Notional amount	\$ 760	\$ 228
Fixed rate	6.80%	6.68%
Floating rate	2.66%	2.66%
Maturity date	April 2, 2013	April 2, 2013

	<b>2011</b>	
	TMF building note payable	TMF equipment note payable
Notional amount	\$ 781	\$ 433
Fixed rate	6.80%	6.68%
Floating rate	2.73%	2.73%
Maturity date	April 2, 2013	April 2, 2013

At December 31, 2012 and 2011, the fair value of the interest rate swaps was a liability of approximately \$13 and \$60, respectively. These obligations are included in accrued expenses and other current liabilities in the consolidated balance sheets. Gains (losses) on interest rate swap contracts are recorded as a component of interest expense in the statement of consolidated operations and comprehensive loss.

**Table of Contents**

**Note 10. Financing Leases**

In March 2012, the Company entered into a sale-leaseback transaction with a bank for a 3D printing machine. Due to continuing involvement outside of the normal leaseback by the Company, this transaction has been accounted for as a financing lease. Under the terms of the agreement, the Company received proceeds of approximately \$985 ( 739) with repayment of the lease occurring over a three-year period beginning in April 2012. The present value of the future minimum lease payments, including an interest rate of 6.0%, was approximately \$553 ( 418) at December 31, 2012.

In July 2012, the Company entered into a sale-leaseback transaction with a related party for a 3D printing machine. Based on the economic substance of the transaction between the parties, this transaction was accounted for as a financing lease. Under the terms of the agreement, the Company received proceeds of approximately \$1,553 with repayment of the lease occurring over a five-year period beginning in August 2012. The present value of the future minimum lease payments, including an interest rate of 6.0%, was approximately \$1,463 at December 31, 2012.

In November 2012, the Company entered into a sale-leaseback transaction with a bank for a 3D printing machine. Due to continuing involvement outside of the normal leaseback by the Company, this transaction has been accounted for as a financing lease. Under the terms of the agreement, the Company received proceeds of approximately \$974 ( 737) with repayment of the lease occurring over a three-year period beginning in January 2013. The present value of the future minimum lease payments, including an interest rate of 6.0%, was approximately \$853 ( 646) at December 31, 2012.

Future maturities of financing leases at December 31, 2012, are approximately as follows:

2013	\$ 920
2014	773
2015	606
2016	335
2017	235
Thereafter	
	\$ 2,869

**Note 11. Common and Preferred Units**

*Common units*

At December 31, 2012 and 2011, the Company had 10,000,000 common units issued and outstanding.

Net income (loss) is allocated to each common unitholder in proportion to the units held by each common unitholder relative to the total units outstanding. The common unitholders share the Company's positive cash flow, to the extent available, which is distributed annually and allocated among the common unitholders in proportion to the units held by each common unitholder relative to the total units outstanding. Common unitholders are entitled to one vote per unit on all matters.

On January 1, 2013, in connection with the reorganization of the Company (Note 19), 10,000,000 common units in the former limited liability company were exchanged for 5,800,000 shares of common stock.

*Preferred units*

On December 30, 2011, the Company entered into a debt conversion agreement with the Company's majority member to convert \$18,984 of unpaid principal and interest on the Company's demand note payable to member

---

**Table of Contents**

(Note 8) into redeemable preferred units of the Company in full satisfaction of the indebtedness. Accordingly, 18,983,602 redeemable preferred units were issued at a conversion price of \$1.00 per share.

The preferred units were non-voting limited liability company membership interests, and permitted the majority member (unitholder) to receive cumulative dividends at the annual rate of 8.0% per unit prior to, and in preference to, any declaration or payment of any dividend on the Company's common units. Dividends on the preferred units accumulated and were payable irrespective of whether the Company had earnings, whether there were funds legally available for the payment of such dividends, and whether dividends were declared.

The Company had the option to redeem all or any number of the preferred units at any time upon written notice and payment to the unitholder of \$1.00 plus all accrued but unpaid dividends for each unit being redeemed. The unitholder had the option to convert all or any number of preferred units to common units at the conversion rate of 9.5 preferred units for 1.0 common unit. Preferred units were designed to automatically convert to 1,998,275 common units upon the closing of any initial public offering in which the gross proceeds of the offering exceed \$50,000 provided that the unitholder elected to retain such units. The Company analyzed the conversion feature under the applicable FASB guidance for accounting for derivatives and concluded that the conversion feature did not require separate accounting under such FASB guidance.

Because the unitholder was also the majority member and principal owner of the Company at December 31, 2011, he had the ability to redeem the preferred units at his option, thus giving the units characteristics of a liability rather than equity. Accordingly, the Company's preferred units were classified as a liability in the Company's consolidated balance sheets at December 31, 2011. At December 31, 2011, the unitholder had committed to not exercise his redemption rights through January 1, 2013.

In February 2012, the redemption feature on the preferred units was removed by an amendment to the preferred unit agreement. As a result, the preferred units were reclassified at fair value (\$18,984) from a liability to equity in the consolidated balance sheets at December 31, 2012.

In May 2012, the unitholder sold 6,000,000 preferred units to two separate unrelated parties for \$1.00 per unit.

On January 1, 2013, in connection with the reorganization of the Company (Note 19), preferred units in the former limited liability company were exchanged for 18,983,602 shares of preferred stock. Immediately prior to the IPO of the Company (Note 19), shares of preferred stock were automatically converted into shares of common stock at a 9.5 to 1.0 basis (1,998,275 shares). Following the conversion, there are no issued or outstanding shares of preferred stock in the Company.

**Note 12. Equity-Based Compensation**

In May 2012, the Company's majority member completed the sale of 300,000 common units to an existing member of the Company for \$1.25 per unit. In July and August of 2012, the Company's majority member completed the sale of additional common units to two employees under the terms described above. The fair value of these common units on the measurement date was \$7.20 per common unit. The Company recognized compensation expense of approximately \$7,735 during 2012 in connection with the sale of these common units.

Determining the fair value of the common units required complex and subjective judgments. The Company used the sale of a similar security in an arms-length transaction with unrelated parties to estimate the value of the enterprise at the measurement date, which included assigning a value to the similar security's rights, preferences and privileges, relative to the common units. The enterprise value was then allocated to the Company's outstanding equity securities using a Black-Scholes option pricing model. The option pricing model involves making estimates such as: the anticipated timing of a potential liquidity event (less than one year), volatility of our equity securities (65.0%), and risk-free interest rate (0.16%). Changes in these assumptions could materially impact the value assigned to the common units.



**Table of Contents****Note 13. License Agreements**

The Company has license agreements with certain organizations which require license fee payments to be made on a periodic basis, including royalties on net sales of licensed products, processes and consumables. License fee expenses amounted to approximately \$57, \$682 and \$357 for 2012, 2011 and 2010, respectively, and are included in cost of sales in the consolidated statement of operations and comprehensive loss. At December 31, 2012, accrued license fees were approximately \$1,015 and are recorded in accrued expenses and other current liabilities (\$748) and other noncurrent liabilities (\$267) in the consolidated balance sheets. At December 31, 2011, accrued license fees were approximately \$1,183 and are recorded in accrued expenses and other current liabilities in the consolidated balance sheets.

Included in the license agreements is an exclusive patent license agreement with the Massachusetts Institute of Technology (the MIT Agreement). Patents covered under the MIT Agreement have expiration dates ranging from 2013 to 2021. Terms of the MIT Agreement remain in force until the expiration or abandonment of all issued patent rights.

Terms of the MIT Agreement require that the Company remit payment to MIT for (1) minimum license maintenance fees, (2) royalties, ranging from 2.5% to 5.0%, on net sales of licensed products, processes and consumables and (3) reimbursement of certain qualifying patent expenses incurred by MIT.

On January 22, 2013, the Company and MIT agreed to an amendment of their exclusive patent license agreement (the Amended MIT Agreement). The Amended MIT Agreement provides for, among other things, (1) a reduction in the term of the agreement between the Company and MIT from the date of expiration or abandonment of all issued patent rights to December 31, 2016, (2) an increase in the minimum license maintenance fees due for the years ended December 31, 2013 through December 31, 2016 from \$50 annually to \$100 annually, with amounts related to 2013 through 2016 guaranteed by ExOne in the event of termination of the agreement, (3) a settlement of all past and future royalties on net sales of licensed products, processes and consumables for a one-time payment of \$200, payable in 2013 by the Company, and (4) a provision for extension of the term of the arrangement between the parties for an annual license maintenance fee of \$100 for each subsequent year beyond 2016.

As a result of the Amended MIT Agreement, the Company recorded a reduction to its accrued license fees at December 31, 2012, of approximately \$1,500 with a corresponding reduction to cost of sales. License fee expenses, including minimum license maintenance fees and royalties, associated with the MIT Agreement and related Amended MIT Agreement for 2012, 2011 and 2010 were (\$159), a reduction to cost of sales, \$595 and \$275, respectively. Reimbursement of qualifying patent expense incurred by MIT were \$50, \$11 and \$18 for 2012, 2011 and 2010, respectively and are recorded in selling, general and administrative expenses in the consolidated statement of operations and comprehensive loss.

**Note 14. Operating Lease Commitments**

The Company leases various manufacturing facilities, office and warehouse spaces, equipment and vehicles under operating lease arrangements, expiring in various years through 2017.

Future minimum lease payments of operating lease arrangements at December 31, 2012, are approximately as follows:

2013	\$ 739
2014	62
2015	47
2016	24
2017	9
Thereafter	
	\$ 881

Rent expense under operating lease arrangements was approximately \$984, \$1,057 and \$847 for 2012, 2011 and 2010, respectively.



**Table of Contents****Note 15. Income Taxes**

Prior to reorganization (Note 19) the Company was a limited liability company whereby its members were taxed on a proportionate share of the Company's taxable income. As such, no provision has been recorded for U.S. federal or state income taxes. The Company reported taxable income from ExOne GmbH of approximately \$2,803, \$2,473 and \$648 in 2012, 2011 and 2010, respectively. Ex One KK reported taxable income of approximately \$878, \$396 and \$0 in 2012, 2011 and 2010, respectively. Taxable income of Ex One KK for both 2012 and 2011 was fully offset by net operating loss carryforwards.

The provision for income taxes was \$995, \$1,031 and \$198 in 2012, 2011 and 2010, respectively and related entirely to the taxable income of ExOne GmbH. The benefit from deferred taxes for 2012, 2011 and 2010 was fully offset by changes in the valuation allowance for deferred tax assets.

A reconciliation of the provision for income taxes at the U.S. statutory rate of 35.0% to the effective rate of the Company for the years ended December 31 is as follows:

	2012	2011	2010
U.S. statutory rate (35.0%)	\$ (3,043)	\$ (2,305)	\$ (1,744)
Limited liability company losses not subject to tax	4,018	1,818	2,110
Taxes on foreign operations	(164)	(71)	(95)
Increase in uncertain tax positions	146	249	15
Net change in valuation allowances	8	1,290	(140)
Permanent differences and other	30	50	52
<b>Provision for income taxes</b>	<b>\$ 995</b>	<b>\$ 1,031</b>	<b>\$ 198</b>
 Effective tax rate	 111.5%	 115.7%	 104.0%

The components of net deferred income tax assets and net deferred income tax liabilities at December 31 were as follows:

	2012	2011
<b>Current deferred tax assets (liabilities):</b>		
Accounts receivable	\$	\$ 515
Inventories	(434)	(638)
Accrued expenses and other current liabilities	143	(117)
Deferred revenue and customer prepayments	1,912	1,917
Other	250	(67)
Valuation allowance	(2,049)	(1,984)
 Current deferred tax assets (liabilities)	 (178)	 (374)
 <b>Noncurrent deferred tax assets (liabilities):</b>		
Net operating loss carryforwards	431	868
Property and equipment	599	922
Other	567	236
Valuation allowance	(1,419)	(1,652)
 Noncurrent deferred tax assets (liabilities)	 178	 374
 Net deferred tax assets (liabilities)		

## Edgar Filing: ExOne Co - Form 10-K

The Company has provided a valuation allowance for its net deferred tax assets because the Company has not demonstrated a consistent history of generating net operating profits in the jurisdictions in which it operates. At December 31, 2012, the Company had approximately \$1,076 in foreign net operating loss carryforwards to offset future taxable income of Ex One KK, which expire from 2013 through 2019.

**Table of Contents**

The following table summarizes changes to the Company's valuation allowances at December 31:

	2012	2011
Beginning balance	\$ 3,636	\$ 2,266
Increase to allowance	8	1,290
Foreign currency	(176)	80
Ending balance	3,468	3,636

The Company files income tax returns in both Germany and Japan. In Germany, the Company's 2010 through 2012 tax years remain subject to examination. In Japan, the Company's 2005 through 2012 tax years remain subject to examination.

The Company has a liability for uncertain tax positions related to certain capitalized expenses and related party transactions. At December 31, 2012 and 2011, the liability for uncertain tax positions was approximately \$416 and \$264, respectively, and is included in accrued expenses and other current liabilities in the consolidated balance sheets. At December 31, 2012 and 2011, the liability for uncertain tax positions for Ex One KK was \$94 and \$377, respectively.

A reconciliation of the beginning and ending amount of unrecognized tax benefits at December 31 was as follows.

	2012	2011	2010
Beginning balance	\$ 264	\$ 15	\$
Increases related to current year tax positions	146	249	15
Foreign currency	6		
Ending balance	\$ 416	\$ 264	\$ 15

The Company includes interest and penalties related to income taxes as a component of the provision for income taxes in the consolidated statement of operations and comprehensive loss.

**Note 16. Fair Value Measurements**

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. When determining the fair value measurements for assets and liabilities which are required to be recorded at fair value, the Company considers the principal or most advantageous market in which the Company would transact and the market-based risk measurements or assumptions that market participants would use in pricing the asset or liability, such as inherent risk, transfer restrictions and credit risk.

**Table of Contents**

The Company applies the following fair value hierarchy, which prioritizes the inputs used to measure fair value into three levels and bases the categorization within the hierarchy upon the lowest level of input that is available and significant to the fair value measurement:

**Level 1** Observable inputs such as quoted prices in active markets for identical investments that the Company has the ability to access.

**Level 2** Inputs include:

Quoted prices for similar assets or liabilities in active markets;

Quoted prices for identical or similar assets or liabilities in inactive markets;

Inputs, other than quoted prices in active markets, that are observable either directly or indirectly;

Inputs that are derived principally from, or corroborated by, observable market data by correlation or other means.

**Level 3** Inputs that are generally unobservable and typically reflect management's estimates of assumptions that market participants would use in pricing the asset or liability.

The Company is required to disclose its estimate of the fair value of material financial instruments, including those recorded as assets or liabilities in its consolidated financial statements, in accordance with GAAP.

The following table sets forth the fair value of the Company's liabilities measured on a recurring basis by level:

December 31,	Level	2012	2011
Accrued expenses and other current liabilities:			
Interest rate swap liability	2	\$ 13	\$ 60
Redeemable preferred units	3		\$ 18,984

The fair value of the interest rate swap liability is determined by using a discounted cash flow model using observable inputs from the related forward interest rate yield curves with the differential between the forward rate and the stated interest rate of the instrument discounted back from the settlement date of the contracts to December 31, 2012 and 2011, respectively. As this model utilizes observable inputs and does not require significant management judgment it has been determined to be a Level 2 financial instrument in the fair value hierarchy.

The fair value of the Company's redeemable preferred units is estimated based on unobservable inputs, including the present value of the Company's demand note payable to member immediately prior to conversion, as further described in Note 11. As this estimate utilizes unobservable inputs and requires significant management judgment it has been determined to be a Level 3 financial instrument in the fair value hierarchy.

The following table sets forth a summary of changes in the fair value of the Company's Level 3 financial instruments:

	2012	2011
<b>Beginning balance</b>	\$ 18,984	\$
Realized gains (losses)		
Unrealized gains (losses)		
Purchases		
Sales		
Issuances		18,984
Settlements	(18,984)	
Transfers into Level 3		
Transfers out of Level 3		
<b>Ending balance</b>	\$	\$ 18,984



**Table of Contents**

The carrying values and fair values of other ExOne financial instruments were as follows:

December 31,	2012		2011	
	Carrying Value	Fair Value	Carrying Value	Fair Value
Cash and cash equivalents	\$ 2,802	\$ 2,802	\$ 3,496	\$ 3,496
Line of credit	\$ 528	\$ 528	\$	\$
Demand note payable to member	\$ 8,666	\$ 8,666	\$	\$
Current portion of long-term debt	\$ 2,028	\$ 2,028	\$ 1,294	\$ 1,294
Current portion of financing leases	\$ 920	\$ 920	\$	\$
Long-term debt net of current portion	\$ 5,669	\$ 7,880	\$ 4,135	\$ 6,377
Financing leases net of current portion	\$ 1,949	\$ 1,949	\$	\$

The carrying amounts of cash and cash equivalents, line of credit, demand note payable to member, current portion of long-term debt and current portion of financing leases approximate fair value due to their short-term maturities. Cash and cash equivalents were classified in Level 1; Line of credit, demand note payable to member, current portion of long-term debt, current portion of financing leases, long-term debt net of current portion and financing leases net of current portion were classified in Level 2.

**Note 17. Segment, Product and Geographic Information**

The Company manages its business globally in a singular operating segment in which it develops, manufactures and markets 3D printing machines, printed parts, materials and other (including production and contract services for customers). Geographically, the Company conducts its business through wholly-owned subsidiaries in the United States, Germany and Japan.

Revenue by product for the year ended December 31 was as follows:

	2012	2011	2010
3D printing machines	\$ 15,668	\$ 5,406	\$ 5,622
3D printed parts, materials and other services	12,989	9,884	7,818
	\$ 28,657	\$ 15,290	\$ 13,440

During 2012, 2011 and 2010, the Company conducted a significant portion of its business with a limited number of customers. The Company had one customer in 2011 (Ryoyu Systems) and three customers in 2010 (Intek, I Metal and BMW) which individually represented 10% or greater of total revenue for those respective years. There were no customers in 2012 which individually represented 10% or greater of total revenue. In 2012, 2011 and 2010, the Company's five most significant customers represented approximately 31.7%, 40.9% and 48.7% of total revenue, respectively. At December 31, 2012, accounts receivable from these customers were approximately \$1,671. At December 31, 2011, accounts receivable from these customers were not significant.

Geographic information for revenue for the year ended December 31 was as follows (based on the country where the sale originated):

	2012	2011	2010
United States	\$ 7,802	\$ 4,587	\$ 3,936
Germany	13,956	5,678	6,909
Japan	6,899	5,025	2,595
	\$ 28,657	\$ 15,290	\$ 13,440





**Table of Contents**

Geographic information for long-lived assets at December 31 was as follows (based on the physical location of assets):

	2012	2011
United States	\$ 9,592	\$ 5,672
Germany	2,550	1,230
Japan	325	1,017
	\$ 12,467	\$ 7,919

**Note 18. Related Party Transactions**

The Company provides various services to several related entities under common control by the majority member, primarily in the form of accounting, finance, information technology and human resource outsourcing. The cost of these services is generally reimbursed by these related entities and was approximately \$281, \$210 and \$90 in 2012, 2011 and 2010, respectively. In addition, the Company may purchase certain items on behalf of related parties under common control by the majority member. Amounts due from these related entities, included in prepaid expenses and other current assets in the consolidated balance sheets, were \$38 at December 31, 2012, and \$396 at December 31, 2011.

The Company receives design services and the corporate use of an airplane from related entities under common control by the majority member. The cost of these services received was approximately \$149, \$23 and \$35 in 2012, 2011 and 2010, respectively. Amounts due to these related entities, included in accounts payable and accrued expenses and other current liabilities in the consolidated balance sheets, were \$47 at December 31, 2012, and \$17 at December 31, 2011.

**Note 19. Subsequent Events**

The Company has evaluated all activity of ExOne and concluded that no subsequent events have occurred that would require recognition in the consolidated financial statements or disclosure in the notes to the consolidated financial statements, except as described below.

***Reorganization***

On January 1, 2013, 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. As a result of the reorganization, The Ex One Company, LLC became the Company, a Delaware corporation, the common and preferred interest holders of The Ex One Company, LLC became holders of common stock and preferred stock, respectively, of the Company and the subsidiaries of The Ex One Company, LLC became the subsidiaries of the Company. The preferred stock of the Company was converted into common stock on a 9.5 to 1 basis (1,998,275 shares of common stock) immediately prior to February 6, 2013, the effective date of the IPO.

Prior to giving effect to the reorganization transaction, no provision for income taxes had been recorded for The Ex One Company, LLC as its individual members were taxed based on their proportionate share of taxable income. Upon conversion, The ExOne Company will be taxed as a corporation for U.S. federal, state, local and foreign income tax purposes. On January 1, 2013, the Company recorded a net deferred tax asset of approximately \$213 based on the difference between the book and tax basis of assets and liabilities as of that date. Due to a history of operating losses at the subsidiary level, a valuation allowance of 100% of the net deferred tax asset was established.

---

## **Table of Contents**

### ***Settlement of Preferred Unit Dividends***

On January 23, 2013, the Company settled an accrued dividend with certain preferred unitholders of the former limited liability company in the amount of approximately \$1,437. Of this amount, approximately \$304 was settled in cash with the remaining \$1,133 converted by the principal preferred unitholder (also the majority member of the former limited liability company) to additional amounts due under the demand note payable to member. The demand note payable to member was fully repaid on February 14, 2013 (see Long-Term Debt Repayments below).

### ***2013 Equity Incentive Plan***

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 (i) 3.0% of the total outstanding shares of common stock as of December 31 of the immediately preceding year or (ii) 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 1,992,242 shares, subject to certain adjustments. On January 24, 2013, the Board of Directors authorized awards of 180,000 incentive stock options (ISOs) under the Plan to certain employees contemporaneously with the IPO at an exercise price determined by the IPO offering price, which was \$18.00 per share. These awards vest on a cumulative annual basis over a three year period and the ISOs fully expire on February 6, 2023.

### ***Initial Public Offering of The ExOne Company***

On February 6, 2013, the Company's registration statement on Form S-1 (File No 333-185933) was declared effective for the Company's IPO, pursuant to which the Company registered the offering and sale of 6,095,000 shares of common stock at a public offering price of \$18.00 per share for an aggregate offering price of \$109,710.

As a result of the offering, the Company received net proceeds of approximately \$91,996, after deducting underwriting discounts and commissions. Following the receipt of net proceeds, the Company paid offering expenses of approximately \$1,600.

### ***Long-Term Debt Repayments***

On February 14, 2013, the Company repaid outstanding amounts due on the demand note payable to member (Note 8) of approximately \$9,800 (including accrued interest). Following this repayment, the demand note payable to member was retired. Separately, on February 14, 2013, the Company repaid \$300 to retire its building note payable with an unrelated party (Note 9). There were no prepayment penalties or gains or losses associated with this early retirement of debt.

### ***TMF and Lone Star Asset Acquisition***

On March 27, 2013, a wholly-owned subsidiary of the Company, ExOne Americas LLC, a Delaware limited liability company, acquired certain assets, including property and equipment (principally land, buildings and machinery and equipment) held by two variable interest entities of the Company, TMF and Lone Star, and assumed all outstanding debt of such variable interest entities, including certain related interest rate swap agreements.

Payment of approximately \$1,900 was made to TMF and approximately \$200 was made to Lone Star, including a return of capital to the majority member of the former limited liability company of approximately \$1,400. There was no gain or loss or goodwill generated as a result of this transaction. Simultaneous with the completion of this transaction, the Company also repaid all of the outstanding debt and settled the related interest rate swap agreements assumed from the variable interest entities, resulting in a payment of approximately \$4,700.

**Table of Contents****The ExOne Company and Subsidiaries (formerly The Ex One Company, LLC and Subsidiaries)****Supplemental Quarterly Financial Information (unaudited)**

(in thousands, except per-unit amounts)

	December 31, 2012	For the Quarter Ended September 30, 2012	June 30, 2012	March 31, 2012
Revenue	\$ 12,744	\$ 8,515	\$ 4,676	\$ 2,722
Gross profit	\$ 6,248	\$ 3,556	\$ 1,523	\$ 816
Net income (loss) attributable to ExOne*	\$ 902	\$ (5,932)	\$ (3,609)	\$ (1,529)
Net income (loss) per share attributable to ExOne common unitholders**:				
Basic	\$ 0.05	\$ (0.63)	\$ (0.40)	\$ (0.18)
Diluted	\$ 0.04	\$ (0.63)	\$ (0.40)	\$ (0.18)

	December 31, 2011	For the Quarter Ended September 30, 2011	June 30, 2011	March 31, 2011
Revenue	\$ 2,718	\$ 6,021	\$ 2,303	\$ 4,248
Gross profit	\$ 398	\$ 2,219	\$ 18	\$ 1,008
Net loss attributable to ExOne	\$ (2,766)	\$ (839)	\$ (2,988)	\$ (1,444)
Net loss per share attributable to ExOne common unitholders**:				
Basic	\$ (0.28)	\$ (0.08)	\$ (0.30)	\$ (0.14)
Diluted	\$ (0.28)	\$ (0.08)	\$ (0.30)	\$ (0.14)

\* Net loss attributable to ExOne includes \$5,950 and \$1,785 in equity-based compensation expense for the quarters ended September 30, 2012 and June 30, 2012, respectively. There was no equity-based compensation expense recorded by ExOne during any other quarter in 2012 or 2011.

\*\* Per-unit amounts are calculated independently for each quarter presented; therefore the sum of the quarterly per-unit amounts may not equal the per-unit amounts for the year.

---

**Table of Contents****Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure**

None.

**Item 9A. Controls and Procedures.*****Evaluation of Disclosure Controls and Procedures***

Our management, with the participation of our Chief Executive Officer and our Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of December 31, 2012. The term disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the Exchange Act), means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost benefit relationship of possible controls and procedures. Based on this evaluation, management concluded as of December 31, 2012 that our disclosure controls and procedures were not effective at the reasonable assurance level due to material weaknesses in our internal control over financial reporting, which are described below.

In connection with the preparation of our consolidated financial statements for the year ended December 31, 2012, we concluded that there are material weaknesses in the design and operating effectiveness of our internal control over financial reporting as defined in SEC Regulation S-X. A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of the annual or interim financial statements will not be prevented or detected on a timely basis. A description of the identified material weaknesses in internal control over financial reporting are as follows:

*The design and operating effectiveness of internal controls related to our financial reporting process were not sufficient to allow for accurate and timely reporting of our consolidated financial results.* We did not maintain adequate control with respect to the application of accounting principles generally accepted in the United States (GAAP). This was principally due to a lack of personnel with adequate knowledge and experience in GAAP. As a result, we recorded certain manual, post-close adjustments in order to prepare the consolidated financial statements included in this Form 10-K.

*The design and operating effectiveness of internal controls related to our information technology systems was not sufficient to allow for accurate and timely reporting of our consolidated financial results.* Each of our primary locations (United States, Germany and Japan) utilizes separate and distinct information technology platforms to record, process and summarize transactions. As a result, our process to consolidate and report financial information is substantially a manual process and inherently subject to error.

*The design and operating effectiveness of internal controls related to our consolidation process and management's review of our consolidated financial results did not operate at a level of precision sufficient to allow for accurate and timely reporting of our consolidated financial results.* Our consolidation process is substantially a manual process and inherently subject to error. Further, because of internal control weaknesses identified with respect to our financial reporting process and information technology systems, management was unable to complete an adequate review of either subsidiary or consolidated financial results at a sufficient level of precision to prevent or detect misstatements. As a result, we recorded certain manual, post-close adjustments in order to prepare the consolidated financial statements included in this Form 10-K.

## **Table of Contents**

With the oversight of senior management and our audit committee, we have begun taking steps and plan to take additional measures to remediate the underlying causes of the identified material weaknesses. Our plan includes (i) enhancing our global accounting and reporting process by designing and strengthening the operating effectiveness of internal controls over financial reporting, (ii) evaluating our information technology systems to further integrate existing systems or invest in improvements to our technology sufficient to generate accurate and timely financial information and (iii) adding financial personnel with adequate knowledge and experience in GAAP.

In addition to these efforts, we are in the process of documenting and testing our internal control over financial reporting in order to report on the effectiveness of our internal controls as of December 31, 2013, as required following our initial public offering. We can provide no assurance at this time that management will be able to report that our internal control over financial reporting is effective as of December 31, 2013. As an emerging growth company, we are exempt from the requirement to obtain an attestation report from our independent registered public accounting firm on the assessment of our internal controls pursuant to the Sarbanes-Oxley Act of 2002 until 2018, or such time that we no longer qualify as an emerging growth company in accordance with the Jumpstart Our Businesses Startups Act of 2012.

Notwithstanding the identified material weaknesses, management believes the consolidated financial statements included in this Annual Report on Form 10-K fairly present in all material respects our financial condition, results of operations and cash flows as of and for the periods presented in accordance with GAAP.

### ***Management's Report on Internal Control over Financial Reporting***

This annual report does not include a report of management's assessment regarding internal control over financial reporting or an attestation report of the Company's independent registered public accounting firm due to a transition period established by the rules of the Securities and Exchange Commission for newly public companies.

### ***Changes in Internal Control over Financial Reporting***

We were a private company prior to February 2013. As a private company, we relied on outside service providers for certain of our administrative support functions. We are also an emerging growth company and are presently not subject to the requirements of Section 404(b) of the Sarbanes-Oxley Act.

We have not begun testing or documenting our internal control procedures in order to comply with the requirements of Section 404(a) of the Sarbanes-Oxley Act. However, we have been made aware of a material weaknesses in our internal controls over financial reporting by our independent registered public accounting firm. We have begun to take steps to remediate these material weaknesses and plan to take further steps in the future. Section 404 of the Sarbane-Oxley Act requires annual management assessments of the effectiveness of our internal control over financial reporting. Assuming that we continue to qualify as an emerging growth company for the next five years, we will be required to comply with Section 404(b) at the time we file our annual report on Form 10-K for the year ended December 31, 2018. As part of this process, we may identify specific internal controls as being deficient.

### **Item 9B. Other Information**

None.

**Table of Contents****PART III****Item 10. Directors, Executive Officers and Corporate Governance**

The following table sets forth information concerning our executive officers and directors as of March 15, 2013. Unless otherwise stated, the address for our executive officers and directors is c/o The ExOne Company, 127 Industry Boulevard, North Huntingdon, Pennsylvania 15642.

<b>Name</b>	<b>Age</b>	<b>Position</b>
S. Kent Rockwell	68	Chairman of the Board and Chief Executive Officer
David Burns	58	President & Chief Operating Officer Director
John Irvin	58	Chief Financial Officer, Treasurer, and Director
Rainer Hoechsmann	47	General Manager of ExOne GmbH
Ken Yokoyama	35	General Manager of Ex One KK
Rick Lucas	47	Chief Technology Officer
JoEllen Lyons Dillon	49	Chief Legal Officer and Secretary
Bonnie K. Wachtel	57	Director
Victor Sellier	63	Director
Raymond J. Kilmer	47	Director
Lloyd A. Semple	73	Director

The following are biographical summaries, including experience, of those individuals who serve as our executive officers and directors:

**S. Kent Rockwell** Mr. Rockwell, our Chairman and Chief Executive Officer, has served as our Managing Member since 2008. Mr. Rockwell has been the Chairman and Chief Executive Officer of Rockwell Venture Capital, Inc., a private venture capital company, since 1983 and of Appalachian Timber Services, a supplier of timber products for railroads, since 1986. Mr. Rockwell served as Vice Chairman of Argon ST, a public company engaged primarily in defense contracting, from 2004 to 2010. Mr. Rockwell served as the Chairman and Chief Executive Officer of Sensytech Inc., which was engaged in the design, development, and manufacture of electronics and technology products for the defense and intelligence markets in the United States, from 1998 to 2004. He was Chairman and Chief Executive Officer of Astrotech International Corp., a public company in the oilfield supply business, from 1989 to 1997. From 1987 to 1989, he was Chairman and Chief Executive Officer of Special Metals Corp., a producer of super alloy and special alloy long products. From 1978 to 1982, he was Chairman and Chief Executive Officer of McEvoy Oilfield Equipment, a producer of oilfield equipment. Mr. Rockwell served on the Board of Directors of Rockwell International from 1973 until 1982 and served as President of the Energy Products Group of Rockwell International from 1977 to 1982.

**David J. Burns** Mr. Burns has served as our President and Chief Operating Officer since 2005, and began serving as a member of our Board of Directors effective January 1, 2013. He has been a trustee for the Rochester Institute of Technology since 2003 and a board member of The Association for Manufacturing Technology since 2001, serving as its chairman from 2004 to 2005. From 1978 to 2005, he was employed by Gleason Corp., a global manufacturer of products related to gear manufacturing, where he was Chief Executive Officer from 2001 to 2005. Mr. Burns has served on the Executive Advisory Council of The Simon School at the University of Rochester since 2002.

**John Irvin** Mr. Irvin has served as our Chief Financial Officer since October 1, 2012, and began serving as a member of our Board of Directors effective January 1, 2013. From 2008 to 2012, Mr. Irvin served as President of PartnersFinancial, a national insurance brokerage company owned by National Financial Partner Corp. ( NFP ), a publicly-traded diversified financial services firm. From 1993 to 2008, he was Chairman and Chief Executive Officer of Innovative Benefits Consulting, Inc., a life insurance consulting firm and wholly-owned subsidiary of NFP.

From 1983 to 1993, Mr. Irvin was a partner of Mid Atlantic Capital Group, a financial services company which he co-founded in 1983 and his highest position was vice chairman. In 1979, Mr. Irvin formed the certified public

**Table of Contents**

accounting firm of John Irvin and Company. From 1976 to 1979, he was an accountant for Arthur Andersen LLP. From 2000 to 2004, Mr. Irvin served on the board of directors of Sensytech Inc., which was engaged in the design, development, and manufacture of electronics and technology products for the defense and intelligence markets in the United States, and also served on its audit committee from 2000 to 2002, and as chairman of the audit committee from 2002 to 2004. Upon the merger of Sensytech Inc. into Argon ST, Inc., a public company engaged primarily in defense contracting, he served as director and chairman of the audit committee from 2004 to 2010. He has served on The American College Foundation Board since 2010.

**Rainer Hoechsmann** Mr. Hoechsmann has served as General Manager of ExOne GmbH, a subsidiary of us, since 2003 and is responsible for operations in Europe. Mr. Hoechsmann is the inventor and co-inventor of certain AM technology covered by a number of our patents. In 2003 he co-founded Prometal RCT GmbH in Augsburg, which is the predecessor to ExOne GmbH. In 1999, he co-founded Generis GmbH, one of the first companies implementing 3D printing applications, in Augsburg, Germany. Mr. Hoechsmann has received a number of industry awards, including the OCE Printing Award from OCE Printers AG, the Technical University of Munich Award for 3D Printing and McKinsey & Company Start-Up Award. He is a member of the Association of German Engineers.

**Ken Yokoyama** Mr. Yokoyama is the General Manager of Ex One KK, a subsidiary of ExOne since 2008. He is responsible for overall management of the Japan and Asia operations. From 2005 to 2008, he was the Technical Manager of Ex One KK. From 2004 to 2005, he was the Process Engineer for Extrude Hone KK.

**Rick Lucas** Mr. Lucas has served as our Chief Technology Officer since June 2012. He served in various positions from October 2001 to June 2012 at Touchstone Research Laboratory, a broad-based product development research facility that focuses on the development of next-generation materials and products, where he directed operations and research activities and served as Director of Operations from March 2010 to June 2012. From November 1989 to October 2001, Mr. Lucas managed product development for Lake Shore Cryotronics, a privately held developer of cryogenic temperature sensors and other instrumentation. He is currently serving on the National Additive Manufacturing Innovation Institute (NAMII), an additive manufacturing center, governance board.

**JoEllen Lyons Dillon** Ms. Dillon has served as our Chief Legal Officer and Corporate Secretary since March 11, 2013. From May 2012 through February 2013, she was a legal consultant on our IPO. She was previously a partner at two national law firms, Reed Smith LLP from 2002 until 2011 and Buchanan Ingersoll & Rooney PC from 1988 until 2002, where she became a partner after starting as an associate with the firm. Ms. Dillon was the former Chair, and currently serves as the Audit Committee Chair of the Allegheny District chapter of the National Multiple Sclerosis Society. She is also a Vice President of the Wine & Spirits Advisory Council to the Pennsylvania Liquor Control Board.

The following are biographical summaries, including experience, of those individuals (other than S. Kent Rockwell, David Burns and John Irvin) who are our directors:

**Lloyd A. Semple** Mr. Semple began serving on our Board of Directors on February 5, 2013. He has been a professor of law at the Detroit Mercy School of Law in Detroit, Michigan since 2004 and its dean since 2009. Prior to 2004, he practiced law at Dykema Gossett, a Detroit-based law firm, where he was Chairman and Chief Executive Officer from 1995 to 2002. He has served as outside counsel and director for several business enterprises. He was a director of Argon ST, Inc. a public company engaged primarily in defense contracting, from 2004 to 2010.

**Bonnie K. Wachtel** Ms. Wachtel began serving on our Board of Directors on February 11, 2103. She is a principal of Wachtel & Co., Inc., an investment firm in Washington, DC involved with the development of growing companies. Since joining Wachtel & Co., Inc., in 1984, Ms. Wachtel has been a director of more than a dozen public and private corporations. She has been a director of VSE Corporation (NASDAQ: VSEC) a



---

## **Table of Contents**

provider of engineering services principally to the federal government, since 1991 and of Information Analysis Inc., a provider of IT technical services, since 1992. She was a director of Integral Systems Inc. (NASDAQ: ISYS) a provider of satellite related software and services, from 2010 to 2011. She was also a director of Acies Corporation, a payment systems processor, from 2006 to 2008. Ms. Wachtel serves on the Listing Qualifications Panel for NASDAQ. She practiced law at Weil, Gotshal & Manges in New York from 1980 to 1984. She is a certified financial analyst.

**Victor Sellier** Mr. Sellier began serving on our Board of Directors on February 11, 2013. He co-founded Argon Engineering Associates, Inc., the predecessor company to Argon ST, Inc. ( Argon ST ), a public company engaged primarily in defense contracting, in 1997. He served as Argon ST's Vice President of Business Operations and Secretary from 2004 to 2007, as its Chief Financial Officer and Treasurer from 2005 to 2007, and was Argon ST's Executive Vice President from 2007 to 2009. He served as a Director of Argon ST, Inc. from 2004 to 2010. From 1995 to 1997, Mr. Sellier served as the Vice President and Assistant General Manager of the Falls Church Division of Raytheon E-Systems, (NYSE). From 1989 to 1995, he served as Vice President and Assistant General Manager of Engineering Research Associates, a wholly-owned subsidiary of E-Systems Corporation, (NYSE). Mr. Sellier served as the Senior Financial and Administrative Manager of Engineering Research Associates, a privately held company, from 1979 to 1989.

**Raymond J. Kilmer** Mr. Kilmer began serving on our Board of Directors on February 11, 2103. Mr. Kilmer has been Executive Vice President and Chief Technology Officer of Alcoa Inc., a world-wide manufacturer and supplier of aluminum products, since 2011. Prior to that he was Vice President-Technology and Engineering of Alcoa Mill Products from 2008 to 2011 and Global Director-Automotive Flat Rolled Products for Alcoa Inc. from 2006 to 2008.

### **Board Structure and Compensation of Directors**

Our Board of Directors consists of all seven of the above mentioned members. Our Board of Directors has determined that Messrs. Semple, Kilmer and Sellier and Ms. Wachtel are independent under applicable NASDAQ Marketplace Rules and therefore, a majority of the members of our Board of Directors will be independent directors.

During 2012, we were a privately held company and the executive officers of the Company served as members of the board of directors and did not receive additional compensation for their service as directors. Following the IPO, non-employee directors will receive an annual cash retainer of \$30,000. In addition, the Chairman of the Audit Committee and the Chairman of the Compensation Committee will each receive an annual fee of \$5,000. Directors are also eligible for awards pursuant to our 2013 Equity Incentive Plan. Directors who are also full-time officers or employees of our company will receive no additional compensation for serving as directors.

### **Board Committees**

Our Board of Directors has three (3) standing committees: the Audit Committee, the Nominating and Governance Committee, and the Compensation Committee. Following the phase-in period permitted under the NASDAQ Marketplace Rules, we intend that all the members of our Nominating and Governance Committee and of our Compensation Committee will be independent under applicable provisions of those rules. In addition, all members of our Audit Committee will be independent under applicable provisions of the Exchange Act and the NASDAQ Marketplace Rules.

**Nominating and Governance Committee.** The Nominating and Governance Committee, which is chaired by Mr. Semple, assists the Board of Directors in identifying and recommending candidates to fill vacancies on the Board of Directors and for election by the stockholders, recommending committee assignments for directors to the board of directors, monitoring and assessing the performance of the Board of Directors and individual non-

## **Table of Contents**

employee directors, reviewing compensation received by directors for service on the Board of Directors and its committees and developing and recommending to the Board of Directors appropriate corporate governance policies, practices and procedures for our company. The Nominating and Governance Committee consists of Messrs Semple, Kilmer and Sellier. Each member of this committee is independent under NASDAQ's listing standards.

**Audit Committee.** The Audit Committee, which is chaired by Mr. Sellier (financial expert), assists the Board of Directors in overseeing: (i) the integrity of our financial statements; (ii) our compliance with legal and regulatory requirements; (iii) the independence, qualifications and performance of our independent registered public accounting firm; and (iv) the performance of our internal audit function. The Audit Committee is comprised of Messrs. Sellier and Kilmer and Ms. Wachtel. Each member of this committee is independent under NASDAQ's listing standards for audit committees.

**Compensation Committee.** The Compensation Committee, which is chaired by Ms. Wachtel: (i) reviews and approves the compensation of our executive officers and other key employees; (ii) evaluates the performance of our Chief Executive Officer and oversees the performance evaluation of senior management; and (iii) administers and makes recommendations to the board of directors with respect to our 2013 Equity Incentive Plan and any other compensation plans. The Compensation Committee consists of Ms. Wachtel and Messrs. Kilmer and Semple. Each member of this committee is independent under NASDAQ's listing standards.

## **Governance Principles**

The Company has adopted a Code of Ethics and Business Conduct that applies to all directors, officers and employees of the Company. The Company will disclose any future amendments to the code of ethics and business conduct that relate to the executive officers of the Company on the Company's website, as well as any waivers of the code of ethics and business conduct that relate to the executive officers of the Company.

The Company maintains a corporate governance page on its website which includes key information about its corporate governance practices, including its corporate governance guidelines, code of ethics and business conduct. The corporate governance page can be found at <http://www.exone.com>. The Company will provide a copy of its corporate governance guidelines and code of ethics and business conduct upon request by a stockholder to the Corporate Secretary by mail c/o The ExOne Company, 127 Industry Boulevard, North Huntingdon, PA 15642, Attn: Corporate Secretary.

## **Section 16(a) Beneficial Ownership Reporting Compliance**

Section 16(a) of the Securities Exchange Act of 1934 requires persons who own more than ten percent of a registered class of our equity securities and our directors and executive officers to file with the SEC initial reports of ownership and reports in changes in ownership of any ExOne equity securities. Because we were not publicly traded in 2012, no reports were required to be filed in 2012.

**Table of Contents****Item 11. Executive Compensation**

The following table provides information regarding the compensation awarded to or earned during the two most recent fiscal years by our Chief Executive Officer and each of the next three most highly compensated executive officers who were serving as executive officers through December 31, 2012 (collectively, the named executive officers).

**Summary Compensation Table**

Name and Position	Year	Salary	Bonus	Total Cash Compensation	All Other Compensation	Non-Cash Equity Based Compensation	Total Compensation
S. Kent Rockwell, Chairman & Chief							
Executive Officer David J. Burns, President & Chief	2012						
Operating Officer Doris Pedersen, Chief	2012	\$ 272,216		\$ 272,216	\$ 2,117 <sup>1</sup>	\$ 3,272,500 <sup>2</sup>	\$ 3,546,833 <sup>2</sup>
Financial Officer <sup>(3)</sup> John Irvin, Chief	2012	\$ 266,267		\$ 266,267	\$ 4,665 <sup>1</sup>		\$ 270,932
Financial Officer <sup>(4)</sup> Rainer Hoechsmann, General Manager of ExOne GmbH	2012	\$ 62,033		\$ 62,033		\$ 1,785,000 <sup>2</sup>	\$ 1,847,033 <sup>2</sup>
	2012	\$ 286,396	\$ 64,476 <sup>5</sup>	\$ 350,872		\$ 2,677,500 <sup>2</sup>	\$ 3,028,372 <sup>2,5</sup>

<sup>1</sup> Represents the net value of personal use of company car.

<sup>2</sup> RFP, an entity controlled by S. Kent Rockwell, sold: 550,000 common units (which converted into 319,000 shares of common stock upon the Reorganization) to David Burns; 300,000 common units (which converted into 174,000 shares of common stock upon the Reorganization) to John Irvin; and 450,000 common units (which converted into 261,000 shares of common stock upon the Reorganization) to Rainer Hoechsmann. Due to RFP's controlling interest in us, such sales are deemed to be made by us; therefore, we recognized the excess of the fair market value on June 30, 2012, the measurement date, over the sale price of \$1.25 per unit (\$2.61 per share) as non-cash compensation expense. The fair value of the common units on the measurement date was \$7.20 per unit (\$12.41 per share), resulting in total non-cash compensation expense of approximately \$7.7 million for accounting purposes. The total compensation listed above includes that non-cash compensation of \$3.3 million, \$1.7 million and \$2.7 million for Messrs. Burns, Irvin and Hoechsmann, respectively.

<sup>3</sup> Ms. Pedersen resigned as Chief Financial Officer effective September 30, 2012, and her employment with us ended on December 31, 2012.

<sup>4</sup> Mr. Irvin became the Chief Financial Officer effective October 1, 2012.

<sup>5</sup> ExOne paid Mr. Hoechsmann in Euros in 2012. The referenced number was obtained by applying the average Euro to U.S. foreign currency exchange rate for 2012 of 1.2859.

---

**Table of Contents**

***2013 Equity Incentive Plan***

On January 24, 2013, our board of directors adopted our the Plan. The plan will be submitted to our stockholders for approval within 12 months of its adoption.

*Share Reserve.* We have reserved 500,000 shares of our common stock for issuance under our Plan on the date of this prospectus. The number of shares reserved for issuance under our Plan will increase automatically on the first day of January of each of 2014 through 2023 by a number of shares of common stock equal to the lesser of (i) three percent (3.0%) of the total outstanding shares of our common stock as of the immediately preceding December 31st or (ii) a number of shares determined by the board of directors, provided that the maximum number of shares authorized under our Plan will not exceed 1,992,242 shares, subject to certain adjustments. In addition, the following shares of our common stock will remain available for grant or issuance under our Plan:

shares subject to options granted under our Plan that cease to be subject to the option for any reason other than exercise of the option;

shares subject to awards granted under our Plan that are subsequently forfeited or repurchased by us at the original issue price;

shares subject to awards granted under our Plan that otherwise terminate without shares being issued; and

shares surrendered, cancelled, or exchanged for cash.

*Term.* Our Plan will terminate ten years from the date our board of directors approve the plan, unless it is terminated earlier by our board of directors.

*Eligibility.* Our Plan authorizes the award of stock options, restricted stock awards, stock appreciation rights, restricted stock units, performance shares and stock bonuses. No person will be eligible to receive more than 100,000 shares in any calendar year under the Plan, except that we may choose to issue a new employee up to 500,000 shares under the plan in the calendar year in which the employee commences employment.

*Administration.* Our Plan will be administered by our compensation committee, all of the members of which are independent directors under applicable federal securities laws and outside directors as defined under applicable federal tax laws. The compensation committee will have the authority to construe and interpret our Plan, grant awards and make all other determinations necessary or advisable for the administration of the Plan. Awards under the Plan may be made subject to performance factors and other terms in order to qualify as performance based compensation for the purposes of 162(m) of the Code.

*Stock Options.* Our Plan will provide for the grant of incentive stock options that qualify under Section 422 of the Code only to our employees. All awards other than incentive stock options may be granted to our employees, directors, consultants, independent contractors and advisors. The exercise price of each stock option must be at least equal to the fair market value of our common stock on the date of grant. The exercise price of incentive stock options granted to 10% stockholders must be at least equal to 110% of that value.

Our compensation committee may provide for options to be exercised only as they vest or to be immediately exercisable with any shares issued on exercise being subject to our right of repurchase that lapses as the shares vest. In general, options will vest over a three-year period.

*Restricted Stock.* A restricted stock award is an offer by us to sell shares of our common stock subject to restrictions. The price (if any) of a restricted stock award will be determined by the compensation committee. Unless otherwise determined by the compensation committee at the time of award, vesting will cease on the date the participant no longer provides services to us and unvested shares will be forfeited to or repurchased by us.

---

## **Table of Contents**

*Stock Appreciation Rights.* Stock appreciation rights provide for a payment, or payments, in cash or shares of our common stock, to the holder based upon the difference between the fair market value of our common stock on the date of exercise and the stated exercise price up to a maximum amount of cash or number of shares. Stock appreciation rights may vest based on time or achievement of performance conditions.

*Restricted Stock Units.* A restricted stock unit is an award that covers a number of shares of our common stock that may be settled upon vesting in cash, by the issuance of the underlying shares or a combination of both. These awards are subject to forfeiture prior to settlement because of termination of employment or failure to achieve certain performance conditions.

*Performance Shares.* A performance share is an award that covers a number of shares of our common stock that may be settled upon achievement of the pre-established performance conditions in cash or by issuance of the underlying shares. These awards are subject to forfeiture prior to settlement because of termination of employment or failure to achieve the performance conditions.

*Stock Bonus Awards.* Stock bonus awards may be granted as additional compensation for services or performance, and therefore, may not be issued in exchange for cash.

*Additional Provisions.* Awards granted under our Plan may not be transferred in any manner other than by will or by the laws of descent and distribution, or as determined by our compensation committee. Unless otherwise restricted by our compensation committee, awards that are nonstatutory stock options may be exercised during the lifetime of the optionee only by the optionee, the optionee's guardian or legal representative, or a family member of the optionee who has acquired the option by a permitted transfer. Awards that are incentive stock options may be exercised during the lifetime of the optionee only by the optionee or the optionee's guardian or legal representative. Options granted under our Plan generally may be exercised for a period of three months after the termination of the optionee's service to us, except in the case of death or permanent disability, in which case the options may be exercised for up to 12 months or six months, respectively, following termination of the optionee's service to us. If the optionee's service to us is terminated for cause, then such optionee's options will generally expire on the date of termination.

If we experience a change in control transaction, outstanding awards, including any vesting provisions, may be subject to the terms of the merger or similar agreement, and may be assumed or substituted by the successor company. Outstanding awards that are not assumed or substituted in such a transaction may be exercisable for a period of time and will expire upon the closing of such merger or consolidation. In the discretion of our compensation committee, the vesting of these awards may be accelerated upon the occurrence of these types of merger or consolidation transactions. Vesting of awards is accelerated in change of control transactions other than mergers or consolidations.

## **Employment Agreements**

We have entered into employment agreements with: Mr. Rockwell, for an initial term ending on September 1, 2014; Mr. Burns, for an initial term ending on June 1, 2014; and Mr. Irvin, for an initial term ending on October 1, 2014, in all cases unless sooner terminated pursuant to the agreements. Each agreement will automatically extend for additional one year terms on each subsequent anniversary, unless not later than 90 days immediately preceding any anniversary, we or the executive has given written notice to the other that it does not wish to extend the employment agreements. Under the employment agreements, the executives are entitled to receive an annual base salary and are eligible to participate in an annual bonus plan on terms established from time to time by the Board. During the term of the employment agreements, the executives are also eligible to participate in any long-term incentive plan, and in all employee benefit and fringe benefit plans and arrangements made available to its employees generally or its executives.

The employment agreements provide, among other matters, that if the executive resigns for good reason (as defined in the employment agreement) or is terminated without cause (as defined in the employment

**Table of Contents**

agreement) and in each such case has timely delivered a release of claims, he or she is entitled to receive, among other severance payments and benefits, an amount equal to one times his or her then-current base salary and one times the target annual bonus amount (subject to his or her compliance with the confidentiality, non-competition and non-solicitation restrictions set forth in the employment agreement) and payment of the executive's COBRA health insurance continuation premium for the COBRA continuation period (generally 18 months) or until such time as the executive is employed, whichever is earlier. The confidentiality provisions survive the termination of his employment with us and the non-competition and non-solicitation provisions survive for a period of two years following the termination of his employment.

We also have an employment agreement with Mr. Hoechsmann, which extends automatically unless terminated with three months notice prior to the end of any fiscal quarter. Mr. Hoechsmann is entitled to receive an annual base salary and annual bonus and is eligible to participate in any long term incentive plan and in all employee benefit and fringe benefit plans and arrangements made available to its employees generally or its executives. The agreement also provides that all inventions or patents developed by Mr. Hoechsmann in connection with his employment are our property and that Mr. Hoechsmann is subject to a non-competition clause throughout his employment and for two years thereafter, subject to payment per year, for the two year non-compete period, of fifty percent of the average remuneration he received for the last three years.

**Compensation Committee Interlocks and Insider Participation**

None of our executive officers have served as a member of a compensation committee (or if no committee performs that function, the board of directors) of any other entity that has an executive officer serving as a member of our board of directors.

**Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters**

The following table sets forth information as of March 15, 2013 with respect to the ownership of our common stock of: (a) each of our directors; (b) each named executive officer in the summary compensation table; (c) each person who is known by us to be the beneficial owner of more than five percent of the outstanding shares of common stock; and (d) all directors and executive officers as a group. To our knowledge, except as indicated in the footnotes to this table or as provided by applicable community property laws, the persons named in the table have sole investment and voting power with respect to the shares of common stock indicated.

Name and Address of Beneficial Owner <sup>(1)</sup>	Amount and Nature of Beneficial Ownership	Percentage Beneficially Owned
Directors and Executive Officers		
S. Kent Rockwell <sup>(2) (3)</sup>	4,931,027	37.1%
David J. Burns	319,000	2.4%
John Irvin <sup>(4)</sup>	322,000	2.4%
Rainer Hoechsmann	261,000	2.0%
Lloyd A. Semple <sup>(4) (6)</sup>	7,800	*
Bonnie K. Wachtel <sup>(6)</sup>		*
Victor Sellier <sup>(6)</sup>	3,000	*
Raymond J. Kilmer <sup>(6)</sup>		*
All Directors/Executive Officers as group (11 persons) <sup>(2)(3)(5)(6)(7)</sup>	5,897,327	44.4%
S. Kent Rockwell 1997 Irrevocable Trust <sup>(8)</sup>	580,000	4.4%

\* Less than 1%

<sup>(1)</sup> The address of each of our beneficial owners is 127 Industry Boulevard, North Huntingdon, Pennsylvania 15642.

---

**Table of Contents**

- (2) S. Kent Rockwell is deemed to have beneficial ownership of the shares so indicated as the beneficiary of the S. Kent Rockwell Revocable Trust, which is the indirect, sole stockholder of RFP, the beneficial owner of 4,176,000 shares of common stock, or of 31.4% our outstanding shares of common stock.
- (3) S. Kent Rockwell is deemed to have beneficial ownership of the shares so indicated as the beneficiary of the S. Kent Rockwell Revocable Trust, which is the indirect, sole stockholder of RHI, the beneficial owner 755,027 common shares, or of 5.7%.
- (4) Includes 3,000 shares purchased by Colette Irvin, John Irvin s spouse. Includes 300 shares purchased by Cynthia T. Semple, Lloyd Semple s spouse.
- (5) Number does not include 15,000 shares (30,000 shares in the aggregate) of common stock underlying incentive stock options awarded to two executive officers, which vest in equal installments over a three year period, the first of which lapses February 6, 2014.
- (6) Number does not include the grant of 2,500 shares (10,000 shares in the aggregate) of restricted stock to each of Messrs. Semple, Sellier and Kilmer and Ms. Wachtel, which vests in equal installments over a three year period, the first of which lapses February 6, 2014.
- (7) Number does not include the grant of 10,000 shares of restricted stock to one executive officer, which vests in equal installments over a three year period, the first of which lapses March 11, 2014.
- (8) S. Kent Rockwell disclaims beneficial ownership of the S. Kent Rockwell 1997 Irrevocable Trust, which is the owner of 580,000 shares of common stock, or 4.4% of our outstanding shares.

**Item 13. Certain Relationships and Related Transactions, and Director Independence**

**Approval of Related Party Transactions.** Prior to the IPO, we had been a privately held company with a very small number of equity holders which had been primarily funded by companies which are affiliated with Mr. Rockwell (see below), our majority member. As a result, we had never adopted any policy concerning review, approval or ratification of transactions with related persons. However, on March 26, 2013, the Board of Directors of the Company adopted a written policy with respect to related person transactions. The following is a brief summary of the newly adopted Policy and Procedures with Respect to Related Person Transactions.

It is the policy of the Company to enter into or ratify related person transactions only when the Board of Directors acting through the Audit Committee has determined that the transaction in question is in the best interests of the Company. Prior to entering into a related person transaction, the related person shall provide notice to the Chief Legal Officer of the facts and circumstances of the transaction. Upon determining that the proposed transaction involves an amount greater than \$50,000 and is a related person transaction, the proposed transaction shall be submitted to the Audit Committee for consideration. The Audit Committee shall consider all relevant facts and circumstances and approve only those related person transactions that are in the best interests of the Company and its stockholders.

**Rockwell Related Entities**

S. Kent Rockwell, our Chairman and Chief Executive Officer, is the trustee and beneficiary of the S. Kent Rockwell Revocable Trust, which is the 100% owner of Rockwell Venture Capital, Inc. which is the 100% owner of each of RHI and RFP. As a result, Mr. Rockwell is deemed to have beneficial ownership of the shares owned by them.

The S. Kent Rockwell 1997 Irrevocable Trust is the owner of 580,000 shares of our common stock. Mr. Rockwell disclaims beneficial ownership of the shares owned by such Trust.

**Borrowings**

As of December 31, 2011, we had borrowed \$18,983,602 from RHI for working capital. In satisfaction of this debt, we issued to RHI 18,963,602 preferred units on December 31, 2011. In May of 2012, RHI sold

---

## **Table of Contents**

6,000,000 preferred units to third parties. In the Reorganization, RHI converted its remaining 12,983,602 preferred units to 12,983,602 shares of our Class A preferred stock and the other holders of preferred units converted 6,000,000 preferred units to 6,000,000 shares of our Class A preferred stock.

Also during 2012, we entered into the Rockwell Line of Credit with RFP (also referred to in the financials as a demand note payable to member), which is unlimited in amount. It provides for borrowing, repayment and reborrowing from time to time. Borrowings under the Rockwell Line of Credit bear interest at the rate of 8% per annum and are repayable, in whole or part, upon demand of RFP. As of December 31, 2012 and January 23, 2013, we had aggregate borrowing of \$8.7 million and \$9.8 million, respectively, outstanding under the Rockwell Line of Credit. Following the IPO, we were no longer permitted to request additional amounts pursuant to the Rockwell Line of Credit. We used a portion of the net proceeds from the IPO to pay the amount outstanding under the Rockwell Line of Credit. See **Item 5. Use of Proceeds**.

### **Share Ownership**

As of January 1, 2013, we had 5,800,000 shares of common stock outstanding, 72% of which were owned by RFP, 10% of which were owned by the S. Kent Rockwell 1997 Irrevocable Trust, and 18,983,602 shares of Class A preferred stock outstanding of which 12,983,602 or 68% of those shares were owned by RHI. Upon consummation of the IPO, Class A preferred stock converted by its own terms into common stock on a 9.5 to 1 basis into 1,998,273 shares of common stock.

As of March 15, 2013, we had 13,281,608 shares of common stock outstanding (given effect to the conversion of the Class A preferred stock into shares of common stock (1,366,694 shares owned by RHI) and the sale of 6,095,000 shares of common stock in the IPO), RHI holds 5.7% of our outstanding common stock, RFP holds 31.4% of our outstanding common stock. In the aggregate, these entities hold 37.1% of our outstanding common stock. S. Kent Rockwell disclaims beneficial ownership of the S. Kent Rockwell 1997 Irrevocable Trust which owns 4.4% of our outstanding common stock.

### **Leased Property**

We lease property and equipment used by our Houston, Texas and Troy, Michigan operations from our two variable interest entities, Lone Star and TMF, respectively, and we guarantee certain debt of both of them. Lone Star and TMF are owned by the S. Kent Rockwell Revocable Trust, in the case of TMF, and RFP, in the case of Lone Star. During 2012, 2011 and 2010, we paid Lone Star \$0.1 million, \$0.4 million and \$0.4 million, and TMF \$1.6 million, \$1.0 million and \$1.0 million, respectively, under these leases.

On March 27, 2013, our wholly-owned subsidiary, ExOne Americas, acquired certain assets, including property and equipment (principally land, buildings and machinery and equipment) held by our two variable interest entities, TMF and Lone Star, and assumed all outstanding debt of such variable interest entities, including certain related interest rate swap agreements. Lone Star is owned by RFP and TMF is owned by the S. Kent Rockwell Revocable Trust. S. Kent Rockwell, our chairman and Chief Executive Officer, is the trustee and beneficiary of the S. Kent Rockwell Revocable Trust, which is the 100% owner of Rockwell Venture Capital, Inc. which is the 100% owner of RFP. See, **Item 13. Certain Relationships and Related Party Transactions and Director Independence**.

Payment of approximately \$1.9 million was made to TMF and approximately \$0.2 million was made to Lone Star, including a return of capital to entities, which are controlled by Mr. Rockwell, of approximately \$1.4 million. There was no gain or loss or goodwill generated as a result of this transaction. Simultaneous with the completion of this transaction, we also repaid all of the outstanding debt and settled the related interest rate swap agreements assumed from the variable interest entities, resulting in a payment of approximately \$4.7 million.



**Table of Contents**

**Director Independence**

Our Board of Directors has determined that Messrs. Semple, Kilmer and Sellier and Ms. Wachtel are independent under applicable NASDAQ Marketplace Rules and therefore, a majority of the members of our Board of Directors are independent directors.

**Item 14. Principal Accountant Fees and Services.**

The following table presents fees for professional services billed by ParenteBeard LLC for the audit of The Ex One Company, LLC and its subsidiaries annual consolidated financial statements for the years ended December 31, 2012, 2011 and 2010 billed by ParenteBeard LLC during 2012 and 2011 (amounts in millions):

	Year Ended December 31,	
	2012	2011
Audit fees	\$ 0.6	\$ 1.1
Audit-related fees		
All other fees		
Total	\$ 0.6	\$ 1.1

Consistent with SEC policies regarding auditor independence and the Audit Committee's charter, the Audit Committee has responsibility for engaging, setting compensation for and reviewing the performance of the independent registered public accounting firm.

**PART IV**

**Item 15. Exhibits and Financial Statement Schedules**

(a)(1) Financial Statements

See Item 8 of Part II of this Annual Report on Form 10-K.

(a)(2) Financial Statement Schedules

Financial statement schedules have been omitted because they are not applicable, not required, or the required information is included in the consolidated financial statements or notes thereto.

All other schedules for which provision is made in the applicable accounting regulations of the Securities and Exchange Commission are not required under the related instructions or are inapplicable and therefore have been omitted.

(a)(3) Exhibits

The Exhibits listed on the accompanying Index to Exhibits are filed as part of this Annual Report

**Table of Contents**

**Signatures**

Pursuant to the requirements of Section 13 or 15(d) 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.

The ExOne Company

By: /s/ S. Kent Rockwell  
S. Kent Rockwell  
*Chief Executive Officer*

Date: March 29, 2013

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

Signature	Date	Title
/s/ S. Kent Rockwell	March 29, 2013	Chief Executive Officer; Director (Principal Executive Officer)
/s/ John Irvin	March 29, 2013	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer) And Director
/s/ David J. Burns	March 29, 2013	President and Chief Operating Officer And Director
/s/ Lloyd A. Semple	March 29, 2013	Director
/s/ Bonnie K. Wachtel	March 29, 2013	Director
/s/ Victor Sellier	March 29, 2013	Director
/s/ Raymond J. Kilmer	March 29, 2013	Director

**Table of Contents****EXHIBIT INDEX**

The agreements and other documents filed as exhibits to this report are not intended to provide factual information or other disclosure other than with respect to the terms of the agreements or other documents themselves, and you should not rely on them for that purpose. In particular, any representations and warranties made by us in these agreements or other documents were made solely within the specific context of the relevant agreement or document and may not describe the actual state of affairs as of the date they were made or at any other time.

**Exhibits and Financial Statement Schedules**

(A) Exhibits:

<b>Exhibit Number</b>	<b>Description</b>	<b>Method of Filing</b>
3.1	Certificate of Incorporation	Filed as Exhibit 3.1 to Form S-1 Registration Statement (#333-185933) filed on January 8, 2013
3.2	Bylaws.	Filed as Exhibit 3.2 to Form S-1 Registration Statement (#333-185933) filed on January 8, 2013
4.1	Form of stock certificate.	Filed as Exhibit 4.1 to Amendment No. 2 to Form S-1 Registration Statement (#333-185933) filed on January 28, 2013
10.01.01	Amended and Restated Exclusive Patent License Agreement dated January 1, 2011, by and between Massachusetts Institute of Technology and The Ex One Company, LLC.	Filed as Exhibit 10.01.01 to Amendment No. 1 to Form S-1 Registration Statement (#333-185933) filed on January 24, 2013
10.01.02	First Amendment to the Amended and Restated Exclusive Patent License Agreement, dated as of January 1, 2013, by and between Massachusetts Institute of Technology and The Ex One Company, LLC.	Filed as Exhibit 10.01.02 to Amendment No. 1 to Form S-1 Registration Statement (#333-185933) filed on January 24, 2013
10.2	Employment Agreement, dated June 1, 2012, by and between the Company and S. Kent Rockwell.*	Filed as Exhibit 10.2 to Form S-1 Registration Statement (#333-185933) filed on January 8, 2013
10.3	Employment Agreement, dated June 1, 2012, by and between the Company and David Burns.*	Filed as Exhibit 10.3 to Form S-1 Registration Statement (#333-185933) filed on January 8, 2013
10.4	Employment Agreement, dated August 1, 2012, by and between the Company and John Irvin.*	Filed as Exhibit 10.4 to Form S-1 Registration Statement (#333-185933) filed on January 8, 2013
10.5	Employment Agreement, dated August 21, 2003, by and between Prometal RCT and Rainer Hoechsmann (translated from German).*	Filed as Exhibit 10.5 to Form S-1 Registration Statement (#333-185933) filed on January 8, 2013
10.6	Letter amending Employment Agreement, dated March 9, 2012, from the Company to Rainer Hoechsmann (translated from German).	Filed as Exhibit 10.6 to Form S-1 Registration Statement (#333-185933) filed on January 8, 2013

**Table of Contents**

<b>Exhibit Number</b>	<b>Description</b>	<b>Method of Filing</b>
10.07.01	2013 Equity Incentive Plan.	Filed as Exhibit 10.07.01 to Amendment No. 1 to Form S-1 Registration Statement (#333-185933) filed on January 24, 2013
10.07.02	Form of Award Agreements under 2013 Equity Incentive Plan.	Filed as Exhibit 10.07.02 to Amendment No. 1 to Form S-1 Registration Statement (#333-185933) filed on January 24, 2013
10.8	Lone Star Metal Fabrication, LLC Equipment Lease.	Filed as Exhibit 10.8 to Form S-1 Registration Statement (#333-185933) filed on January 8, 2013
10.9	Lone Star Metal Fabrication, LLC Building Lease.	Filed as Exhibit 10.9 to Form S-1 Registration Statement (#333-185933) filed on January 8, 2013
10.10.01	Troy Metal Fabricating, LLC Equipment Lease October 1, 2011.	Filed as Exhibit 10.10.01 to Form S-1 Registration Statement (#333-185933) filed on January 8, 2013
10.10.02	Troy Metal Fabricating, LLC Equipment Lease December 31, 2011.	Filed as Exhibit 10.10.02 to Form S-1 Registration Statement (#333-185933) filed on January 8, 2013
10.10.03	Troy Metal Fabricating, LLC Equipment Lease December 31, 2012.	Filed as Exhibit 10.10.03 to Form S-1 Registration Statement (#333-185933) filed on January 8, 2013
10.10.04	Troy Metal Fabricating, LLC Equipment Lease May 31, 2008.	Filed as Exhibit 10.10.04 to Form S-1 Registration Statement (#333-185933) filed on January 8, 2013
10.10.05	Troy Metal Fabricating, LLC Equipment Lease February 01, 2009.	Filed as Exhibit 10.10.05 to Form S-1 Registration Statement (#333-185933) filed on January 8, 2013
10.10.06	Troy Metal Fabrication, LLC Equipment Lease May 31, 2008.	Filed as Exhibit 10.10.06 to Form S-1 Registration Statement (#333-185933) filed on January 8, 2013
10.11	Troy Metal Fabricating, LLC Building Lease March 31, 2008.	Filed as Exhibit 10.11 to Form S-1 Registration Statement (#333-185933) filed on January 8, 2013
10.12	Kontokorrentkredit Overdraft Agreement, dated July 29, 2011, Between ExOne Gmbh and Stadtparkasse Augsburg. (translated from German).	Filed as Exhibit 10.12 to Form S-1 Registration Statement (#333-185933) filed on January 8, 2013
10.13	Aval Kredit-Rahmanvertrag, Linton Bank Guarantees, dated July 29, 2011, Between ExOne Gmbh and Stadtparkasse Augsburg. (translated from German).	Filed as Exhibit 10.13 to Form S-1 Registration Statement (#333-185933) filed on January 8, 2013
10.14	Abtretung von Außenständer, Assignment of Receivables, dated July 29, 2011, Between ExOne Gmbh and Stadtparkasse Augsburg. (translated from German).	Filed as Exhibit 10.14 to Form S-1 Registration Statement (#333-185933) filed on January 8, 2013

**Table of Contents**

<b>Exhibit Number</b>	<b>Description</b>	<b>Method of Filing</b>
10.15	Revolving Demand Note, dated January 1, 2012 by and between the Company and Rockwell Forest Products, Inc.	Filed as Exhibit 10.15 to Form S-1 Registration Statement (#333-185933) filed on January 8, 2013
10.16	Leasing Contract, Agreement Concerning Use of Machine, Sale and Leaseback Agreement, dated November 21, 2012, between ExOne GmbH and Deutsche für Sparkassen und Mittelstand GmbH (translated from German).	Filed as Exhibit 10.16 to Amendment No. 1 to Form S-1 Registration Statement (#333-185933) filed on January 24, 2013
10.17	Employment Agreement, dated March 7, 2013 by and between the Company and JoEllen Lyons Dillon.	Filed herewith as Exhibit 10.17
21.1	Subsidiaries of the Registrant.	Filed herewith as Exhibit 21.1
23.1	Consent of ParenteBeard LLC.	Filed herewith as Exhibit 23.1
31.1	Rule 13(a)-14(a) Certification of Principal Executive Officer.	Filed herewith as Exhibit 31.1
31.2	Rule 13(a)-14(a) Certification of Principal Financial Officer.	Filed herewith as Exhibit 31.2
32	Section 1350 Certification of Principal Executive Officer and Principal Financial Officer.	Filed herewith as Exhibit 32

*Each management contract and compensatory arrangement in which any director or any named executive officer participates has been marked with an asterisk (\*).*