

3D SYSTEMS CORP  
Form 10-K  
March 14, 2016

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

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FORM 10 K

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

For the fiscal year ended December 31, 2015

OR

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

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission File No. 001-34220

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3D SYSTEMS CORPORATION

(Exact Name of Registrant as Specified in Its Charter)

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DELAWARE	95 4431352
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification No.)
333 THREE D SYSTEMS CIRCLE	
ROCK HILL, SOUTH CAROLINA	29730
(Address of Principal Executive Offices)	(Zip Code)

(Registrant's Telephone Number, Including Area Code): (803) 326 3900

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 \$0.001 per share	The New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: None

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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 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

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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 (§229.405 of this chapter) 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. (Check one):

Large accelerated filer

Accelerated filer

Non-accelerated filer (Do not check if 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 Exchange Act.) Yes No

The aggregate market value of the registrant's common stock held by non-affiliates of the registrant on June 30, 2015 was \$2,048,138,460. For purposes of this computation, it has been assumed that the shares beneficially held by directors and executive officers of the registrant were "held by affiliates." This assumption is not to be deemed an admission by these persons that they are affiliates of the registrant.

The number of outstanding shares of the registrant's common stock as of March 7, 2016 was 111,627,748.

DOCUMENTS INCORPORATED BY REFERENCE: Portions of the registrant's definitive proxy statement for its 2016 Annual Meeting of Stockholders are incorporated by reference into Part III of this Form 10-K.

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3D SYSTEMS CORPORATION

Annual Report on Form 10 K for the  
Year Ended December 31, 2015

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## PART I

### Item 1. Business

#### General

3D Systems Corporation (“3D Systems” or the “Company” or “we” or “us”) is a holding company incorporated in Delaware in 1993 that operates through subsidiaries in the Americas, Europe and the Middle East (collectively referred to as “EMEA”) and the Asia Pacific region (“APAC” or “Asia Pacific”). We market our products and services in those areas as well as in other parts of the world. We provide comprehensive 3D products and services, including 3D printers, print materials, on-demand parts services and digital design and manufacturing tools. Our ecosystem supports advanced applications from the product design shop to the factory floor to the operating room. Our precision healthcare capabilities include simulation, Virtual Surgical Planning (“VSP™”), and printing of medical and dental devices as well as patient-specific surgical instruments.

As the originator of 3D printing and a shaper of future 3D solutions, we have spent our 30 year history enabling professionals and companies to optimize their designs, transform their workflows, bring innovative products to market and drive new business models.

Customers can use 3D printing to design and manufacture complex and unique parts, eliminate expensive tooling, reduce lead times and produce parts locally. Over the past decades, many of our customers have strengthened their competitive advantage by embracing our solutions to enhance and accelerate their product development cycles. A growing number of customers have also transitioned to manufacturing end-use parts and custom products using 3D printing.

Today, we continue to drive the adoption of 3D printing solutions through ongoing product and technology development, focusing on professional and industrial applications and marketplaces, including aerospace and defense, automotive and healthcare.

#### Products

We offer a comprehensive range of 3D printers, print materials, software, haptic devices, scanners and virtual surgical simulators.

## 3D Printers

Our 3D printers transform digital data input generated by 3D design software, CAD software, or other 3D design tools, into printed parts using several unique print engines that employ proprietary, additive layer by layer building processes with a variety of print materials, including plastic, metal, nylon, rubber, wax and composite materials. We offer a broad range of 3D printing technologies including Stereolithography (“SLA”), Selective Laser Sintering (“SLS”), Direct Metal Printing (“DMP”), MultiJet Printing (“MJP”), ColorJet Printing (“CJP”) and PlasticJet Printing (“PJP”).

Our proprietary print engines, which are discussed in more detail below, can produce highly accurate geometries in a wide range of sizes, shapes and materials for parts with a variety of performance characteristics.

## SLA Printers

Our SLA 3D printers cure liquid resin materials with a laser beam to produce durable plastic parts with surface smoothness, high resolution, edge definition and tolerances that rival the accuracy of machined or molded plastic parts. We offer SLA printers with a wide range of materials, sizes and price points that are well-suited for prototypes, end-use parts, casting patterns and molds, tooling, fixtures and medical models.

## SLS Printers

Our SLS 3D printers use a laser beam to melt and fuse powder-based nylon and engineered plastic and composite print materials to produce very strong and durable parts. Customer uses of our SLS printers include functional test models and end-use parts, such as housings, machinery components, ducting, jigs and fixtures and medical devices and personalized surgery kits and guides.

## DMP Printers

Our Direct Metal 3D printers use a laser beam to sinter powders in a variety of metal materials to produce fully dense metal parts with outstanding surface finish and resolution. We offer DMP printers that can process a wide range of materials and powders, including those with very fine granularity, and have been proven in high volume manufacturing applications. We sell DMP systems in various sizes and certain models optimized for specific metals, including titanium, stainless steel and nickel super alloys. Our DMP printers are well-suited for medical and dental implants, aerospace, automotive, hi-tech and industrial applications, such as conformal cooling, simplifying assemblies, light weight parts, enhanced fluid flow, topology optimization and other complex parts.

## MJP Printers

Our MultiJet 3D printers utilize jetting head technology to deliver precise, tough parts with exceptional resolution in tough plastic, wax, elastomer and engineered materials. These printers offer the capability to print in rigid or flexible materials and multiple materials in one build, making them ideal for mechanical functional testing, rapid tooling, jigs and fixtures, casting patterns, over-molding and medical models.

## CJP Printers

Our ColorJet 3D printers produce parts from ceramic-like powder based materials. CJP printers build high-definition, full-color parts that can be sanded, drilled, tapped, painted and electroplated, which further expands the options available for finished part characteristics. CJP printers are ideal for producing models used in mechanical design, healthcare, architecture, education, entertainment and packaging applications.

## PJP Printers

Our PlasticJet 3D printers utilize a simple, clean and compact plastic extrusion print engine technology to print parts in nylon and other plastics. Our PJP printers are designed to be accurate and affordable for prototyping, assembly and functional testing.

## Materials



Our printers utilize a wide range of print materials, the majority of which are proprietary materials that we develop, blend and market. Our comprehensive range of print materials includes plastic, nylon, metal, composite, elastomeric, wax and Class IV bio-compatible materials. We augment and complement our own portfolio of engineered print materials with materials that we develop with or purchase from third parties under private label and distribution arrangements.

We work closely with our customers to optimize the performance of our print materials in their applications. Our expertise in materials science and formulation, combined with our process, software and equipment, enables us to help our customers select the material that best meets their needs with optimal cost and performance results.

As part of our solutions approach our currently offered printers, with the exception of direct metal printers, have built-in intelligence to make them integrated, closed systems. For these printers, we furnish integrated print materials that are specifically designed for use in those printers and that are packaged in smart cartridges and delivery systems. Integrated materials are designed to enhance system functionality, up-time, materials shelf life and overall printer reliability, in addition to the objective of providing our customers with a built-in quality management system and a fully integrated workflow solution.

#### SLA Materials

We offer a variety of liquid resin materials under the Accura® brand name that are designed to mimic specific, engineered thermoplastic and provide a wide range of characteristics, including tough, durable, clear, castable, polypropylene-like, ABS-like, high-temperature resistant, and Class IV bio-compatible. SLA print materials include general purpose as well as specialized materials, and are ideal for product design and testing, casting, patterns and molds, and healthcare applications such as medical models and devices.

### SLS Materials

Our proprietary selective laser sintering materials include a range of soft and rigid plastics, nylon and composite materials marketed under the DuraForm, LaserForm™ and CastForm™ brand names. These lightweight, tough, versatile materials are available in formulations for a wide array of rapid prototyping and direct manufacturing applications. SLS materials are used for high-temperature resistant parts, flexible parts, functional tooling, injection molding tool inserts, investment casting, end-use parts for advanced manufacturing and patient-specific surgical guides.

### DMP Materials

Our direct metal printing materials include metal powders. These materials include titanium, stainless steels, tool steels, super alloys, non-ferrous alloys, precious metals and aluminum. Our DMP printers and materials are used for fully dense, fine feature detail parts for industrial and healthcare applications, including aerospace, automotive, semi-conductor and medical and dental devices and implants.

### VisiJet Print Materials

Our MJP and CJP printers utilize materials that we market under the VisiJet® brand name. These materials consist of a wide range of plastic, wax, elastomeric, ceramic-like, and engineered materials. VisiJet materials are used in advanced prototyping, design communication and testing, casting, medical modeling, and manufacturing applications.

### PJP Print Materials

Materials for use in our PJP 3D printers include polylactic acid (PLA), acrylonitrile butadiene styrene (ABS), polyamide (Nylon) and rinse away support materials.

### Software and Related Products

We also provide digital design tools, including software, scanners and haptic devices. We offer products for product design, mold & die design, 3D scan-to-print, reverse engineering, production machining and inspection. These products are designed to enable a more seamless workflow for customers. We also offer proprietary software and

drivers embedded within our printers that provide part preparation, part placement, support placement, build platform management and print queue management.

#### Other Products

As part of our solutions for precision healthcare, we also offer 3D virtual reality simulators and simulator modules for medical applications. These 3D simulators offer clinicians a realistic hands-on experience to master critical skills, prepare for upcoming procedures and create patient specific simulations. We also provide digitizing scanners for medical and mechanical applications.

#### Services

##### Warranty, Maintenance and Training Services

We provide a variety of customer services, local application support and field support on a worldwide basis for our products, including installation of new printers at customers' sites, printer warranties, maintenance agreements, periodic hardware upgrades and software updates. We also provide services to assist our customers and partners in developing new applications for our technologies, to facilitate the use of our technology for specific applications, to train customers on the use of printers and to maintain our printers at customers' sites.

We provide these services and field support either directly or through a network of partners. We employ customer-support sales engineers globally to support our worldwide customer base, and we are continuing to strengthen and enhance our partner network. We distribute spare parts on a worldwide basis to our customers, primarily from locations in the Americas, EMEA and APAC.

All of our 3D printers are sold with maintenance support that generally covers a warranty period ranging from 90 days to one year. We generally offer service contracts that enable our customers to continue maintenance coverage beyond the initial warranty period. These service contracts are offered with various levels of support and options and are priced accordingly. Our service engineers provide regularly scheduled preventive maintenance visits to customer sites, and we also provide training to our partners to enable them to perform these services.

We also offer upgrade kits for certain of our printers that enable our existing customers to take advantage of new or enhanced printer capabilities. In some cases, we have discontinued upgrade support and maintenance agreements for certain of our older legacy printers.

#### On-Demand Parts Services

We provide on-demand custom parts manufacturing via our Quickparts® brand through a global network of facilities. We provide a broad range of production and finishing capabilities for precision plastic and metal parts and tooling with a wide range of additive and traditional manufacturing processes.

In addition to the sales of parts, we and our sales partners utilize our on-demand parts operation as a sales and lead generation tool, and third party preferred service providers can also use our on-demand parts service as their comprehensive order-fulfillment center. We also provide on-demand professional 3D scanning, printing and custom parts related to the entertainment industry through our Gentle Giant brand.

#### Software Services

In addition to our software license products, we offer software maintenance, which includes updates and software support for each software product. Our software products are sold with maintenance service that generally covers a period of one year. We generally offer multi-year maintenance contracts that enable our customers to continue maintenance coverage beyond the initial one year period. These software service contracts typically include free software updates and various levels of technical support.

#### Healthcare Services

Through our precision healthcare services, we provide medical prototyping and manufacturing services that involve printing and finishing of medical and dental devices, models and tools, as well as modeling and design services,

including VSP™. We also provide service on our surgical simulators that are sold under our Symbionix brand.

## Global Operations

We operate in the Americas, Europe, the Middle East and the Asia Pacific regions, and market our products and services in those areas as well as to other parts of the world. Revenue in countries outside the U.S. accounted for 49.0%, 49.1% and 44.5% of consolidated revenue in the years ended December 31, 2015, 2014 and 2013, respectively.

In maintaining foreign operations, we expose our business to risks inherent in such operations, including currency fluctuations. Information on foreign exchange risk appears in Part I, Item 1A “Risk Factors”, Part II, Item 7A, “Quantitative and Qualitative Disclosures about Market Risk” and Item 8, “Financial Statements and Supplementary Data,” of this Annual Report on Form 10 K (“Form 10-K”).

Financial information about geographic areas, including revenue, long-lived assets, and cash balances, appears in Note 21 to the Consolidated Financial Statements in Part II, Item 8, “Financial Statements and Supplementary Data,” of this Form 10-K (“Consolidated Financial Statements”).

## Marketing and Customers

Our sales and marketing strategy focuses on an integrated approach that is directed at providing 3D printing centric solutions designed to meet a wide range of customer needs. This integrated approach includes the sales and marketing of our entire portfolio of products and services.

Our sales organization is responsible for the sale of all of our products and services on a worldwide basis and for the management and coordination of our growing network of channel partners. We sell our products and services primarily through partners who are supported by our own channel managers and direct sales people, consisting of salespersons who work throughout the Americas, EMEA and Asia Pacific. In addition, our application engineers provide services through pre-sales and post-sales support and assist customers so that they can take advantage of our latest software, printers, materials and techniques to improve part quality, productivity and range of applications. Our applications engineers also leverage our customer contacts to help identify new application opportunities that utilize our products and services, including access to our on-demand parts service. We maintain our on-demand parts service, a global network of locations providing parts and tooling through both additive and traditional manufacturing solutions, which we sell through a direct sales team and our online platform. In addition to providing a comprehensive range of services to customers, our on-demand parts service also provides relationship building and lead generation opportunities for future sales. We also sell certain of our other products through our website.

In certain areas of the world where we do not operate directly, we have appointed channel partners and distributors who are authorized to sell our products and services on our behalf. Certain of those channel partners and distributors also provide additional services to customers in those geographic areas.

Our customers include major companies and small and midsize businesses in a broad range of industries, including automotive, aerospace, government, defense, technology, electronics, education, consumer goods, energy and healthcare. No single customer accounted for more than 10 percent of our consolidated revenue for the years ended December 31, 2015, 2014 or 2013.

#### Production and Supplies

At our Rock Hill, South Carolina location, we assemble PJP, MJP, CJP and certain models of our SLA 3D printers, as well as other equipment related to these printers. We produce Vidar branded digitizers in our Herndon, Virginia facility and our Symbionix branded 3D simulators are produced in Airport City, Israel and Rock Hill, South Carolina. Our DMP printers are produced in Corvallis, Oregon, Riom, France and Leuven, Belgium.

We outsource certain SLA, SLS and DMP printer assembly and refurbishment activities to selected design and engineering companies and suppliers. These suppliers also carry out quality control procedures on our printers prior to their shipment to customers. As part of these activities, these suppliers have responsibility for procuring the components and sub-assemblies either from us or third party suppliers. We purchase finished printers from these suppliers pursuant to forecasts and customer orders that we supply to them. While the outsourced suppliers of our printers have responsibility for the supply chain and inventory of components for the printers they assemble, the components, parts and sub-assemblies that are used in our printers are generally available from several potential suppliers.

We produce print materials at our facilities in Barberton, Ohio; Marly and Grüningen, Switzerland and Rock Hill, South Carolina. We also have arrangements with third parties who blend certain print materials according to our specifications that we sell under our own brand names, and we purchase certain print materials from third parties for resale to our customers.

Our equipment assembly and print materials blending activities, on-demand parts services and certain research and development activities are subject to compliance with applicable federal, state and local provisions regulating the storage, use and discharge of materials into the environment. We believe that we are in compliance, in all material respects, with such regulations as currently in effect and that continued compliance with them will not have a material adverse effect on our capital expenditures, results of operations or consolidated financial position.

#### Research and Development

The 3D printing industry continues to experience technological change and developments in hardware, software and materials. Consequently, we have ongoing research and development programs to develop new products and to enhance our portfolio of products and services, as well as to improve and expand the capabilities of our 3D printers and platforms, materials, software and other products. Our efforts are often augmented by development arrangements with research institutions, customers, suppliers, and assembly and design firms that we have engaged to produce our printers. From time to time, we also engage third-party engineering companies and specialty print materials companies in specific development projects.

In addition to our internally developed technology platforms, we have acquired products or technologies developed by others by acquiring business entities that held ownership rights to the technologies. In other instances, we have licensed or purchased the intellectual property rights of technologies developed by third parties through agreements that may obligate us to pay a license fee or royalty, typically based upon a dollar amount per unit or a percentage of the revenue generated by such products. As noted below, the amount of such royalties was not material to our results of operations or consolidated financial position for the three-year period ended December 31, 2015.

Research and development expenses were \$92.8 million, \$75.4 million and \$43.5 million in 2015, 2014 and 2013, respectively.

No software development costs from acquisitions were capitalized in 2015 or 2014. We capitalized \$0.3 million of software development costs from acquisitions in 2013.

#### Intellectual Property

We regard our technology platforms and materials as proprietary and seek to protect them through copyrights, patents, trademarks and trade secrets. At December 31, 2015 and 2014, we held 1,114 and 1,061 patents worldwide, respectively. At December 31, 2015 and 2014, we had 264 and 262 pending patent applications worldwide, respectively; including applications covering inventions contained in our recently introduced printers and demonstrated technologies. The principal issued patents covering aspects of our various technologies will expire at varying times through the year 2027.

We are a party to various licenses that have had the effect of broadening the range of the patents, patent applications and other intellectual property available to us.

We have also entered into licensing or cross-licensing arrangements with various companies in the United States and other countries that enable those companies to utilize our technologies in their products or that enable us to use their technologies in our products. Under certain of these licenses, we are entitled to receive, or we are obligated to pay, royalties for the sale of licensed products in the U.S. or in other countries. The amount of such royalties was not material to our results of operations or consolidated financial position for the three-year period ended December 31, 2015.

We believe that, while our patents and licenses provide us with a competitive advantage, our success also depends on our marketing, business development, applications know-how and on our ongoing research and development efforts. Accordingly, we believe the expiration of any of the patents, patent applications or licenses discussed above would not



be material to our business or financial position.

## Competition

We face competition from the development of new technologies or techniques not encompassed by the patents that we own or license and from conventional technologies.

Our competitors also include other suppliers of 3D printers and materials, design and production software, tools and scanners, as well as suppliers of forming manufacturing solutions such as vacuum casting equipment, and suppliers of healthcare simulators. Numerous suppliers of these products operate both internationally and regionally, and many of them have well-recognized product lines that compete with us in a wide range of our product applications.

Competition for most of our 3D printers is based primarily on technology capabilities, process know-how, product application know-how and the ability to provide a full range of products and services to meet customer needs. Accordingly, our ongoing research and development programs are intended to enable us to maintain technological leadership. Certain of the companies providing competing products or services, and those currently developing 3D printing products and services, are well established and may have greater financial resources than us.

Our competitors are also companies that manufacture machines that are used to make models, prototypes, molds and parts. These competitors include suppliers of CNC machines, plastics molding equipment, including injection-molding equipment, traditional machining, milling and grinding equipment, and businesses that use such equipment to produce models, prototypes, and molds and manufacture parts. These conventional machining, plastic molding and metal casting techniques continue to be the most common methods by which plastic and metal parts and tool inserts are manufactured today.

We believe that our future success depends on our ability to provide high quality products and services, enhance our existing portfolio, introduce new products and services on a timely and cost-effective basis, meet changing customer needs, extend our core technologies to new applications and anticipate and respond to emerging standards, business models, service delivery methods and other technological changes.

## Employees

At December 31, 2015 and 2014, we had 2,492 and 2,136 full-time employees, respectively. Although some of our employees outside the U.S. are subject to local statutory employment and labor arrangements, none of our U.S. employees are covered by collective bargaining agreements. We have not experienced any material work stoppages and believe that our relations with our employees are satisfactory.

## Available Information

Our website address is [www.3DSystems.com](http://www.3DSystems.com). The information contained on our website is neither a part of, nor incorporated by reference into, this Form 10-K. We make available free of charge through our website our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, amendments to those reports, and other documents that we file with the Securities and Exchange Commission (“SEC”), as soon as reasonably practicable after we electronically file them with, or furnish them to, the SEC. In addition, the public may read and copy materials we file with the SEC at the SEC’s public reference room located at 100 F Street, N.E., Washington, D.C. 20549. Information on the operation of the public reference room can be obtained by calling the SEC at 1-800-SEC-0330.

Several of our corporate governance materials, including our Code of Conduct, Code of Ethics for Senior Financial Executives and Directors, Corporate Governance Guidelines, current charters of each of the standing committees of the Board of Directors and our corporate charter documents and by-laws are available on our website.

## Executive Officers

The information appearing in the table below sets forth the position or positions held by each of our executive officers and his or her age as of March 1, 2016. All of our executive officers serve at the pleasure of the Board of Directors. There are no family relationships among any of our executive officers or directors.

Name and Current Position	Age as of March 1, 2016
Andrew M. Johnson Interim President and Chief Executive Officer, Chief Legal Officer and Secretary	41
Charles W. Hull Executive Vice President and Chief Technology Officer	76
David R. Styka Executive Vice President and Chief Financial Officer	54
Mark W. Wright Executive Vice President and Chief Operating Officer	51
Kevin P. McAlea Executive Vice President and Chief Operating Officer, Healthcare	57
Cathy L. Lewis Executive Vice President and Chief Marketing Officer	64

Abraham N. Reichental resigned as our President and Chief Executive Officer and as a Director, effective at the close of business on October 28, 2015, by mutual agreement with the Board of Directors. Effective upon Mr. Reichental's resignation on October 28, 2015, the Board of Directors appointed Andrew M. Johnson as our Interim President and Chief Executive Officer and established an Executive Management Committee to provide ongoing leadership and to support our companywide operations and strategic initiatives while it conducts a search for a permanent replacement of Mr. Reichental. This committee consists of Mr. Johnson, Mark Wright, David Styka and Charles Hull. Mr. Wright serves as our Chief Operating Officer, Mr. Styka serves as our Chief Financial Officer and Mr. Hull is our Co-founder, Director, Chief Technology Officer and Chairman of the Executive Management Committee. In addition to Interim President and Chief Executive Officer, Mr. Johnson continues to serve as our Chief Legal Officer and Secretary.

Mr. Johnson has served as Interim President and Chief Executive Officer, Chief Legal Officer and Secretary since October 28, 2015. He served as Executive Vice President and Chief Legal Officer from November 2014 to October 28, 2015, and as Vice President, General Counsel and Secretary from April 2012 to November 2014. Previously, he served as Assistant General Counsel and Assistant Secretary with 3D Systems from July 2006 to April 2012.

Mr. Hull is a founder of the Company and has served on our Board of Directors since 1993. He has served as Chief Technology Officer since 1997 and as Executive Vice President since 2000. He has also previously served in various other executive capacities at the Company since 1986, including Chief Executive Officer, Vice Chairman of the Board of Directors and President and Chief Operating Officer.

Mr. Styka joined the Company in January 2015 as Vice President, Chief Accounting Officer and was promoted to Executive Vice President, Chief Financial Officer in May 2015. Prior to joining the Company, Mr. Styka had served as Vice President – Finance and Treasurer at Family Dollar Stores, Inc. a value retailer, since April 2014, Vice President – Finance from March 2011 to April 2014, and Divisional Vice President – Tax and Inventory from July 2008 to March 2011. Prior to joining Family Dollar, Mr. Styka served in a variety of finance roles, including Chief Accounting Officer, at Wellman, Inc. a PET resin and polyester staple fiber manufacturer, from 1993 to 1997 and 1998 to 2008. Mr. Styka began his career in public accounting at Ernst & Young. Mr. Styka also served as the Chief Accounting Officer of Wellman, Inc., at the time that company filed for Chapter 11 bankruptcy protection at the U.S. Bankruptcy Court for the Southern District of New York in February 2008. He served in such role from March 2007 until he left the company in July 2008 to join Family Dollar Stores, Inc.

Mr. Wright joined the Company after an 18-year career at EMC Corporation, a Fortune 500 provider of web-based computing systems and data storage products. Most recently, he served as Senior Vice President of Business Development and Operations – Lenovo, since April 2014. He served as the Chief Operating Officer, Flash Product Division from October 2012 to April 2014, served as Senior Vice President, Strategic Operations, IIP Division from January to October 2012, Senior Vice President, Business Operations, Unified Storage Division from January 2011 to January 2012 and Vice President, Operations and Business Transformation, Unified Storage Division from 2008 to January 2011.

Dr. McAlea has served as a Vice President of the Company from May 2003 until May 2012. He served as Senior Vice President from May 2012 to October 2014 and as Executive Vice President and Chief Operating Officer, Healthcare since October 2014.

Ms. Lewis joined us as Vice President Global Marketing in October 2009 and served as a Vice President from October 2009 until May 2013. She served as Vice President and Chief Marketing Officer from May 2013 to October 2014 and has served as Executive Vice President and Chief Marketing Officer since October 2014. Before joining 3D Systems, she served as Chief Executive Officer of Desktop Factory, Inc. since 2006, a venture financed technology start-up focused on the development and delivery of a low cost 3D printer. From 2001 to 2006, Ms. Lewis served as Senior Vice President, Marketing for IKON Office Solutions, a global office copying/printing/imaging and related

services company.

## Item 1A. Risk Factors

### Forward-Looking Statements

Certain statements made in this Form 10-K that are not statements of historical or current facts are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements include the cautionary statements and risk factors set forth below as well as other statements made in this Form 10-K that may involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from historical results or from any future results or projections expressed or implied by such forward-looking statements.

In addition to the statements set forth below that explicitly describe risks and uncertainties to which our business and our financial condition and results of operations are subject, readers are urged to consider statements in future or conditional tenses or that include terms such as “believes,” “belief,” “expects,” “intends,” “anticipates” or “plans” that appear in this Form 10-K to be uncertain and forward-looking. Forward-looking statements may include comments as to our beliefs, expectations and projections as to future events and trends affecting our business. Forward-looking statements are based upon our beliefs, assumptions and current expectations concerning future events and trends, using information currently available to us, and are necessarily subject to uncertainties, many of which are outside our control. We assume no obligation, and do not intend, to update these forward-looking statements, except as required by applicable law. The factors stated under the heading “Risk Factors” set forth below, as well as other factors, could cause actual results to differ materially from those reflected or predicted in forward-looking statements.

If one or more of these or other risks or uncertainties materialize, or if our underlying assumptions prove to be incorrect, actual results may vary materially from those reflected in or suggested by forward-looking statements. Any forward-looking statement that you read in this Form 10-K reflects our current views with respect to future events and is subject to these and other risks, uncertainties and assumptions relating to our operations, results of operations, financial condition, growth strategy and liquidity. All subsequent written and oral forward-looking statements attributable to us or to individuals acting on our behalf are expressly qualified in their entirety by this discussion. You should specifically consider the factors identified in this Form 10-K, which could cause actual results to differ materially from those referred to in forward-looking statements.

## Risk Factors

The risks and uncertainties described below are not the only risks that we face. Additional risks not currently known to us or that we currently deem not to be material also may impair our business operations, results of operations and financial condition. If any of the risks described below or if any other risks not currently known to us or that we currently deem not to be material actually occurs, our business, results of operations and financial condition could be materially adversely affected. In that event, the trading price of our common stock could decline, and you could lose all or part of your investment in our common stock.

The risks discussed below also include forward looking statements that are intended to provide our current expectations with regard to those risks. There can be no assurance that our current expectations will be met, and our actual results may differ substantially from the expectations expressed in these forward looking statements.

We face significant competition in many aspects of our business, which could cause our revenue and gross profit margins to decline. Competition could also cause us to reduce sales prices or to incur additional marketing or production costs, which could result in decreased revenue, increased costs and reduced margins.

We compete for customers with a wide variety of producers of equipment and software for models, prototypes, other three-dimensional objects and end-use parts as well as producers of print materials and services for this equipment. Some of our existing and potential competitors are researching, designing, developing and marketing other types of competitive equipment and software, print materials and services. Certain of these competitors may have financial, marketing, manufacturing, distribution and other resources substantially greater than ours.

We also expect that future competition may arise from the development of allied or related techniques for equipment and materials that are not encompassed by our patents, from the issuance of patents to other companies that may inhibit our ability to develop certain products, and from improvements to existing print materials and equipment technologies.

Some of our patents have recently expired and others will expire in coming years. Upon expiration of those patents, our competitors may introduce products using the technology previously protected by the expired patents, which products may have lower prices than those of our products. To compete, we may need to reduce our prices for those products, which could adversely affect our revenues, margins and profitability. Additionally, the expiration of our patents could reduce barriers to entry into additive manufacturing, which could result in the reduction of our sales and earnings potential. If competitors using technology previously protected by our expired patents were to introduce products of inferior quality, our potential customers may view the technology negatively, which would have an adverse effect on our image and reputation and on our ability to compete with systems using other additive fabrication technologies.

We intend to continue to follow a strategy of continuing product development to enhance our position to the extent practicable. We cannot assure you that we will be able to maintain our current position in the field or continue to compete successfully against current and future sources of competition. If we do not keep pace with technological change and introduce new products, we may lose revenue and demand for our products. We also incur significant costs associated with the investment in our product development in furtherance of our strategy that may not result in increased revenue or demand for our products and which could negatively affect our operating results.

We believe that our future success depends on our ability to deliver products that meet changing technology and customer needs.

Our business may be affected by rapid technological change, changes in user and customer requirements and preferences, frequent new product and service introductions embodying new technologies and the emergence of new standards and practices, any of which could render our existing products and proprietary technology obsolete. Accordingly, our ongoing research and development programs are intended to enable us to maintain technological leadership. We believe that to remain competitive we must continually enhance and improve the functionality and features of our products, services and technologies. However, there is a risk that we may not be able to:

- Develop or obtain leading technologies useful in our business;
- Enhance our existing products;
- Develop new products, services and technologies that address the increasingly sophisticated and varied needs of prospective customers, particularly in the area of printer speeds and print materials functionality;
- Respond to technological advances and emerging industry standards and practices on a cost-effective and timely basis; or
- Recruit or retain key technology employees.

We have made, and may make in the future, strategic acquisitions that may involve significant risks and uncertainties. We may not realize the anticipated benefits of past or future acquisitions and integration of these acquisitions may disrupt our business and divert management.

We completed four acquisitions in 2015. Acquisitions involve certain risks and uncertainties including, among others, the following:

- Difficulty in integrating newly acquired businesses and operations in an efficient and cost-effective manner, which may also impact our ability to realize the potential benefits associated with the acquisition;
- The risk that significant unanticipated costs or other problems associated with integration may be encountered;



- The challenges in achieving strategic objectives, cost savings and other anticipated benefits;
  
- The risk that our marketplaces do not evolve as anticipated and that the technologies acquired do not prove to be those needed to be successful in the marketplaces that we serve;
  
- The risk that we assume significant liabilities that exceed the limitations of any applicable indemnification provisions or the financial resources of any indemnifying party;
  
- The inability to maintain a relationship with key customers, vendors and other business partners of the acquired businesses;
  
- The difficulty in maintaining controls, procedures and policies during the transition and integration;
  
- The potential loss of key employees of the acquired businesses;
  - The risk of diverting management attention from our existing operations;
  
- Difficulties in coordinating geographically disparate organizations and corporate cultures and integrating management personnel with different business backgrounds;
  
- The potential failure of the due diligence process to identify significant problems, liabilities or other challenges of an acquired company or technology;

- The risk that we incur significant costs associated with such acquisition activity that may negatively impact our operating results before the benefits of such acquisitions are realized, if at all;
- The risk of incurring significant goodwill and other intangible asset impairment charges;
- The risk of incurring significant exit costs if products or services are unsuccessful;
- The entry into marketplaces where we have no or limited direct prior experience and where competitors have stronger marketplace positions;
- The exposure to litigation or other claims in connection with our assuming claims or litigation risks from terminated employees, customers, former shareholders or other third parties; and
- The risk that historical financial information may not be representative or indicative of our results as a combined company.

Historically, we have experienced growth in our operations, both organically and from acquisitions, and we intend to continue to grow. The adaptation of our infrastructure will require, among other things, continued development of our financial and management controls and management information systems, management of our sales channel, continued capital expenditures, the ability to attract and retain qualified management personnel and the training of new personnel. We cannot be sure that our infrastructure, systems, procedures, business processes and managerial controls will be adequate to support the growth in our operations. Any delays in, or problems associated with, implementing, or transitioning to, new or enhanced systems, procedures, or controls to accommodate and support the requirements of our business and operations and to effectively and efficiently integrate acquired operations may adversely affect our ability to meet customer requirements, manage our product inventory, and record and report financial and management information on a timely and accurate basis. These potential negative effects could prevent us from realizing the benefits of an acquisition transaction or other growth opportunity. In that event, our competitive position, revenues, results of operations and financial condition could be adversely affected, which could, in turn, adversely affect our share price and shareholder value.

Our balance sheet contains several categories of intangible assets that we were required to write down in the fourth quarter of 2015 and that we could be required to write off or write down in the future in the event of the impairment of certain of those assets arising from any deterioration in our future performance or other circumstances. Such write-offs or write-downs could adversely impact our earnings and stock price, and our ability to obtain financing in the future.

At December 31, 2015, after recording goodwill and other intangible asset impairment charges, we had \$187.9 million in goodwill capitalized on our balance sheet and \$157.5 million of other intangible assets, net capitalized on our balance sheet, which represented 38.7% of our total assets.

As discussed below, we completed several business acquisitions during 2015, 2014 and 2013. The majority of the acquisitions have resulted in our recording additional goodwill on our consolidated balance sheet. This goodwill typically arose because the purchase price for these businesses reflected a number of factors including the future earnings and cash flow potential of these businesses, the multiples to earnings, cash flow and other factors, such as prices at which similar businesses have been purchased by other acquirers, the competitive nature of the process by which we acquired the business, and the complementary strategic fit and resulting synergies these businesses bring to existing operations.

Accounting Standards Codification (“ASC”) 350, “Intangibles – Goodwill and Other,” requires that goodwill and some long-lived intangibles be tested for impairment at least annually. See Notes 2, 6 and 7 to the Consolidated Financial Statements and “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Policies and Significant Estimates—Goodwill and other intangible and long-lived assets” in Part II, Item 7 of this Form 10-K.

As a result of our annual impairment testing, we recorded goodwill impairment charges of \$443.7 million and other intangible assets impairment charges of \$93.5 million in the fourth quarter of 2015. The impairment charges are non-cash in nature and do not impact our cash position or cash flows, but such a charge, and possible additional charges in the future could adversely affect our results of operations and stockholders’ equity and could adversely affect the trading price of our common stock. We will continue to monitor our reporting units in an effort to determine whether events and circumstances warrant further interim impairment testing. We could be required to write off or write down additional amounts in the future in the event of deterioration in our future performance, sustained slower growth or other circumstances.

We may incur substantial costs enforcing or acquiring intellectual property rights and defending against third party claims as a result of litigation or other proceedings.

In connection with the enforcement of our own intellectual property rights, the acquisition of third-party intellectual property rights or disputes related to the validity or alleged infringement of third party intellectual property rights, including patent rights, we have been, and may in the future be subject to claims, negotiations or complex, protracted litigation. Intellectual property disputes and litigation may be costly and can be disruptive to our business operations by diverting attention and energies of management and key technical personnel, and by increasing our costs of doing business. Although we have successfully defended or resolved past litigation and disputes, we may not prevail in any ongoing or future litigation and disputes.

Third-party intellectual property claims asserted against us could subject us to significant liabilities, require us to enter into royalty and licensing arrangements on unfavorable terms, prevent us from assembling or licensing certain of our products, subject us to injunctions restricting our sale of products, cause severe disruptions to our operations or the marketplaces in which we compete, or require us to satisfy indemnification commitments with our customers including contractual provisions under various license arrangements. In addition we may incur significant costs in acquiring the necessary third-party intellectual property rights for use in our products. Any of these could seriously harm our business.

We may not be able to protect our intellectual property rights and confidential information, including our digital content, from third-party infringers or unauthorized copying, use or disclosure.

Although we defend our intellectual property rights and endeavor to combat unlicensed copying and use of our digital content and intellectual property rights through a variety of techniques, preventing unauthorized use or infringement of our rights is inherently difficult. If our intellectual property becomes subject to piracy attacks, they may harm our business.

Additionally, we endeavor to protect the secrecy of our digital content, confidential information and trade secrets. If unauthorized disclosure of our trade secrets occurs, we could potentially lose trade secret protection. The loss of trade secret protection could make it easier for third parties to compete with our products by copying previously confidential features, which could adversely affect our revenue and operating margins. We also seek to protect our confidential information and trade secrets through the use of non-disclosure agreements. However there is a risk that our confidential information and trade secrets may be disclosed or published without our authorization, and in these situations it may be difficult and/or costly for us to enforce our rights.

Our business and operations could be adversely impacted in the event of a failure of our information technology infrastructure or adversely impacted by a successful cyber-attack.

We have experienced cyber security threats, threats to our information technology infrastructure and unauthorized attempts to gain access to our sensitive information. Prior cyber-attacks directed at us have not had a material impact on our financial results; however this may not continue to be the case in the future. Cyber security assessment analyses undertaken by us have identified and prioritized steps to enhance our cyber security safeguards. We are in the process of implementing these recommendations to enhance our threat detection and mitigation processes and procedures. Despite the implementation of these new safeguards, there can be no assurance that we will be adequately protecting our information or that we will not experience any future successful attacks. The threats we face vary from attacks common to most industries to more advanced and persistent, highly organized adversaries who target us because of the products and services we provide. If we are unable to protect sensitive information, our customers or governmental authorities could question the adequacy of our threat mitigation and detection processes and procedures. Due to the evolving nature of these security threats, however, the impact of any future incident cannot be predicted.

We may be required to expend significant additional resources to modify our cyber security protective measures, to investigate and remediate vulnerabilities or other exposures or to make required notifications, and we may be subject to litigation and financial losses. These costs related to cyber or other security threats or disruptions may not be fully insured or indemnified by other means. Occurrence of any of these events could adversely affect our internal operations, the services we provide to our customers, our future financial results, our reputation or our stock price; or such events could result in the loss of competitive advantages derived from our research and development efforts or other intellectual property or early obsolescence of our products and services.

If we cease to generate net cash flow from operations and if we are unable to raise additional capital, our financial condition could be adversely affected and we may not be able to execute our growth strategy.

We cannot assure you that we will generate cash from operations or other potential sources to fund future working capital needs and meet capital expenditure requirements.

If we are unable to generate such cash flow, we may be required to adopt one or more alternatives, such as selling assets, restructuring or incurring additional debt or obtaining additional equity capital on terms that may be onerous or highly dilutive. Our ability to obtain additional capital or refinance any indebtedness will depend on, among other things, the capital markets, our financial condition at such time and the terms and conditions of any such financing or indebtedness. We may not be able to engage in any of these activities or engage in these activities on desirable terms, which could result in a default on our debt obligations.

From time-to-time we may seek access to additional external sources of capital to fund working capital needs, capital expenditures, acquisitions, and for other general corporate purposes. However, we cannot assure you that capital would be available from external sources such as bank credit facilities, debt or equity financings or other potential sources to fund any of those future needs.

If our ability to generate cash flow from operations and our existing cash becomes inadequate to meet our needs, our options for addressing such capital constraints include, but are not limited to, (i) obtaining additional debt financing or increasing the limit on our current revolving credit facility, (ii) accessing the public capital markets, or (iii) delaying certain of our existing development projects. If it became necessary to obtain additional debt financing it is likely that such alternatives in the current market environment would be on less favorable terms than we have historically obtained, which could have an adverse impact on our consolidated financial position, results of operations or cash flows.

The lack of additional capital resulting from any inability to generate cash flow from operations or to raise equity or debt financing could force us to substantially curtail or cease operations and would, therefore, have an adverse effect on our business and financial condition. Furthermore, we cannot assure you that any necessary funds, if available, would be available on attractive terms or that they would not have a significantly dilutive effect on our existing stockholders. If our financial condition worsens and we become unable to attract additional equity or debt financing or enter into other strategic transactions, we could become insolvent or be forced to declare bankruptcy and we would not be able to execute our growth strategy.

Global economic, political and social conditions and financial markets may harm our ability to do business, adversely affect our sales, costs, results of operations, and cash flow and negatively affect our stock price.

We are subject to global economic, political and social conditions that may cause customers to delay or reduce technology purchases due to economic downturns, volatility in fuel and other energy costs, difficulties in the financial services sector and credit markets, geopolitical uncertainties and other macroeconomic factors affecting spending behavior. We face risks that may arise from financial difficulties experienced by our suppliers, resellers or customers, including, among others, the following:

- Customers or partners to whom we sell our products and services may face financial difficulties or may become insolvent, which could lead to our inability to obtain payment of accounts receivable that those customers may owe;
- Customers and potential customers may experience deterioration of their businesses, which may result in the delay or cancellation of plans to purchase our products;
- Key suppliers of raw materials, finished products or components used in the products that we sell may face financial difficulties or may become insolvent, which could lead to disruption in the supply of printers, print materials or spare parts to our customers; and
- The inability of customers, including resellers, suppliers and contract manufacturers, to obtain credit financing to finance purchases of our products and raw materials used to build those products.

The variety of products that we sell could cause significant quarterly fluctuations in our gross profit margins, and those fluctuations in margins could cause fluctuations in operating income or loss and net income or loss.

We continuously work to expand and improve our products, materials and services offerings, the number of geographic areas in which we operate and the distribution channels we use to reach various target product applications and customers. This variety of products, applications and channels involves a range of gross profit margins that can cause substantial quarterly fluctuations in gross profit and gross profit margins depending upon the mix of product shipments from quarter to quarter. Additionally, the introduction of new products or services may further heighten quarterly fluctuations in gross profit and gross profit margins due to manufacturing ramp-up and start-up costs. We may experience significant quarterly fluctuations in gross profit margins or operating income or loss due to the impact of the mix of products, channels or geographic areas in which we sell our products from period to period. In some quarters, it is possible that our financial performance could be below expectations of analysts and investors. If so, the price of our common stock may be volatile or decline and our cost of capital may increase.

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

For the year ended 2015, 49.0% of our consolidated revenue was derived from customers in countries outside the U.S. There are many risks inherent in business activities outside the U.S. that, unless managed properly, may adversely affect our profitability, including our ability to collect amounts due from customers. While most of our operations outside the U.S. are conducted in highly developed countries, our operations could be adversely affected by, among others, the following:

- Unexpected changes in laws, regulations and policies of non-U.S. governments relating to investments and operations, as well as U.S. laws affecting the activities of U.S. companies abroad;
- Changes in regulatory requirements, including export controls, tariffs and embargoes, other trade restrictions, competition, corporate practices and data privacy concerns;
- Political policies, political or civil unrest, terrorism or epidemics and other similar outbreaks;
- Fluctuations in currency exchange rates;
- Limited protection for the enforcement of contract and intellectual property rights in some countries;
- Difficulties in staffing and managing foreign operations;
- Operating in countries with a higher incidence of corruption and fraudulent business practices;
- Potentially adverse changes in taxation; and
- Other factors, depending upon the specific country in which we conduct business.

These uncertainties may make it difficult for us and our customers to accurately plan future business activities and may lead our customers in certain countries to delay purchases of our products and services. More generally, these geopolitical, social and economic conditions could result in increased volatility in global financial markets and economies.



The consequences of terrorism or armed conflicts are unpredictable, and we may not be able to foresee events that could have an adverse effect on our market opportunities or our business. We are uninsured for losses and interruptions caused by terrorism, acts of war and similar events.

While the geographic areas outside the U.S. in which we operate are generally not considered to be highly inflationary, our foreign operations are sensitive to fluctuations in currency exchange rates arising from, among other things, certain intercompany transactions that are generally denominated, for example, in U.S. dollars rather than their respective functional currencies.

Moreover, our operations are exposed to market risk from changes in interest rates and foreign currency exchange rates and commodity prices, 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.

We depend on our supply chain for components and sub-assemblies used in our 3D printers and other products and for raw materials used in our print materials. If these relationships were to terminate or be disrupted, our business could be disrupted while we located alternative suppliers and our expenses may increase.

We have outsourced the assembly of certain of our printers to third party suppliers, we purchase components and sub-assemblies for our printers from third-party suppliers, and we purchase raw materials that are used in our print materials, as well as certain of those print materials, from third-party suppliers.

While there are several potential suppliers of the components, parts and sub-assemblies for our products, we currently choose to use only one or a limited number of suppliers for several of these components, including our lasers, print materials and certain jetting components. Our reliance on a single or limited number of suppliers involves many risks, including, among others, the following:

- Potential shortages of some key components;
- Disruptions in the operations of these suppliers;
- Product performance shortfalls; and
- Reduced control over delivery schedules, assembly capabilities, quality and costs.

While we believe that we can obtain all the components necessary for our products from other manufacturers, we require any new supplier to become “qualified” pursuant to our internal procedures, which could involve evaluation processes of varying durations. We generally have our printers and other products assembled based on our internal forecasts and the supply of raw materials, assemblies, components and finished goods from third parties, which are subject to various lead times. In addition, at any time, certain suppliers may decide to discontinue production of an assembly, component or raw material that we use. Any unanticipated change in the sources of our supplies, or unanticipated supply limitations, could increase production or related costs and consequently reduce margins.

If our forecasts exceed actual orders, we may hold large inventories of slow-moving or unusable parts, which could have an adverse effect on our cash flow, profitability and results of operations. Inversely, we may lose orders if our forecast is low and we are unable to meet demand.

We have engaged selected design and manufacturing companies to assemble certain of our production printers. In carrying out these outsourcing activities, we face a number of risks, including, among others, the following:

- The risk that the parties that we retain to perform assembly activities may not perform in a satisfactory manner;
- The risk of disruption in the supply of printers or other products to our customers if such third parties either fail to perform in a satisfactory manner or are unable to supply us with the quantity of printers or other products that are needed to meet then current customer demand; and
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The risk of insolvency of these suppliers, as well as the risks that we face, as discussed above, in dealing with a limited number of suppliers.

The costs and effects of litigation, investigations or similar matters involving us or our subsidiaries, or adverse facts and developments related thereto, could materially affect our business, operating results and financial condition.

We may be involved from time to time in a variety of litigation, investigations, inquiries or similar matters arising out of our business, including those described in Note 22 to the Consolidated Financial Statements contained in Part II, Item 8 of this Annual Report on Form 10-K. The Company cannot predict the outcome of these or any other legal matters. In the future, we may need to record litigation reserves with respect to these matters because our insurance may not cover all claims that may be asserted against us. Should the ultimate judgments or settlements in any litigation or investigation significantly exceed our insurance coverage, they could have a material adverse effect on our business, financial condition and results of operations.

Our products and services may experience quality problems from time to time that can result in decreased sales and operating margin, product returns, product liability, warranty or other claims that could result in significant expenses and harm to our reputation.

We sell complex hardware and software products, materials and services that can contain undetected design and manufacturing defects or errors when first introduced or as enhancements are released that, despite testing, are not discovered until after the product has been installed and used by customers. Sophisticated software and applications, such as those sold by us, may contain “bugs” that can unexpectedly interfere with the software’s intended operation. Defects may also occur in components and products we purchase from third parties. There can be no assurance we will be able to detect and fix all defects in the hardware, software, materials and services we sell. Failure to do so could result in lost revenue, delayed market acceptance of those products and services, claims from distributors, end-users or others, increased end-user service and support costs, and significant warranty claims and other expenses to correct the defects, diversion of management time and attention and harm to our reputation.

Our operations could suffer if we are unable to attract and retain key management or other key employees.

Our success depends upon the continued service and performance of our senior management and other key personnel. Our senior executive team is critical to the management of our business and operations, as well as to the development of our strategy. The loss of the services of one or more members of our senior executive team could delay or prevent the successful implementation of our growth strategy, or our commercialization of new applications for our systems or other products, or could otherwise adversely affect our ability to manage our company effectively and carry out our business plan. Members of our senior management team may resign at any time. High demand exists for senior management and other key personnel (including scientific, technical and sales personnel) in the 3D printing industry, and there can be no assurance that we will be able to retain such personnel. We experience intense competition for qualified personnel. While we intend to continue to provide competitive compensation packages to attract and retain key personnel, some of our competitors for these employees have greater resources and more experience, making it difficult for us to compete successfully for key personnel. If we cannot attract and retain sufficiently qualified technical employees for our research and development and manufacturing operations, we may be unable to achieve the synergies expected from mergers and acquisitions that we may effect from time to time, or to develop and commercialize new products or new applications for existing products. Furthermore, possible shortages of key personnel, including engineers, in the regions surrounding our facilities could require us to pay more to hire and retain key personnel, thereby increasing our costs.

We may be subject to product liability claims, which could result in material expense, diversion of management time and attention and damage to our business reputation.

The sale and support of our products entails the risk of product liability claims. We may become subject from time to time to product liability claims that could lead to significant expenses. The risk may be heightened when we provide products into certain markets, such as health-care, aerospace and automotive industries.

This risk of product liability claims may also be greater due to the use of certain hazardous chemicals used in the production of certain of our products, including irritants, harmful chemicals and chemicals dangerous to the environment. We may also be subject to claims that our printers have been, or may be used to, create parts that are not in compliance with legal requirements or that infringes on the intellectual property rights of others.

We attempt to include provisions in our agreements with customers that are designed to limit our exposure to potential liability for damages arising from defects or errors in our products and other issues. However, the nature and extent of these limitations vary from customer to customer. Their effect is subject to a variety of legal limitations and it is possible that these limitations may not be effective as a result of unfavorable judicial decisions or laws enacted in the future.

Any claim brought against us, regardless of its merit, could result in significant expense, diversion of management time and attention, damage to our business reputation and failure to retain existing customers or to attract new customers. Although we maintain product liability insurance, such insurance is subject to deductibles and there is no guarantee that such insurance will be available or adequate to protect against all such claims. Costs or payments made in connection with product liability claims could adversely affect our financial condition and results of operations.

We rely on our management information systems for inventory management, distribution, and other key functions. If our information systems fail to adequately perform these functions, or if we experience an interruption in their operation, our business and operating results could be adversely affected.

The efficient operation of our business is dependent on our management information systems. We rely on our management information systems to, among other things, effectively manage our accounting and financial functions, including maintaining our internal controls; to manage our manufacturing and supply chain processes; and to maintain our research and development data. The failure of our management information systems to perform properly could disrupt our business and product development, which may result in decreased sales, increased overhead costs, excess or obsolete inventory, and product shortages, causing our business and operating results to suffer. Although we take steps to secure our management information systems, including our computer systems, intranet and Internet sites, email and other telecommunications and data networks, the security measures we have implemented may not be effective and our systems may be vulnerable to theft, loss, damage and interruption from a number of potential sources and events, including unauthorized access or security breaches, natural or man-made disasters, cyber-attacks, computer viruses, power loss, or other disruptive events. Our reputation and financial condition could be adversely affected if, as a result of a significant cyber event or otherwise, our operations are disrupted or shut down; our confidential, proprietary information is stolen or disclosed; we incur costs or are required to pay fines in connection with stolen customer, employee, or other confidential information; we must dedicate significant resources to system repairs or increase cyber security protection; or we otherwise incur significant litigation or other costs.

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

Doing business on a worldwide basis requires us to comply with the laws and regulations of the U.S. government and various foreign jurisdictions. These laws and regulations place restrictions on our operations, trade practices, partners and investments. In particular, our operations are subject to U.S. and foreign anti-corruption and trade control laws and regulations, such as the Foreign Corrupt Practices Act (“FCPA”) and United Kingdom Bribery Act (the “Bribery Act”), export controls and economic sanctions programs, including those administered by the U.S. Treasury Department’s Office of Foreign Assets Control (“OFAC”), the State Department’s Directorate of Defense Trade Controls (“DDTC”), and the Bureau of Industry and Security (“BIS”). As a result of doing business in foreign countries and with foreign customers, we are exposed to a heightened risk of violating anti-corruption and trade control laws and sanctions regulations.

As part of our business, we may deal with state-owned business enterprises, the employees of which are considered foreign officials for purposes of the FCPA’s prohibition on providing anything of value to foreign officials for the purposes of obtaining or retaining business or securing any improper business advantage. In addition, the provisions of the Bribery Act extend beyond bribery of foreign public officials and also apply to transactions with individuals that a government does not employ. Some of the international locations in which we operate lack a developed legal system and have higher than normal levels of corruption. Our continued expansion outside the U.S., including in Brazil, China, India and developing countries, and our development of new partnerships and joint venture

relationships worldwide, could increase the risk of FCPA, OFAC or Bribery Act violations in the future.

As an exporter, we must comply with various laws and regulations relating to the export of products and technology from the U.S. and other countries having jurisdiction over our operations. In the U.S., these laws include the International Traffic in Arms Regulations (“ITAR”) administered by the DDTC, the Export Administration Regulations (“EAR”) administered by the BIS, and trade sanctions against embargoed countries and destinations administered by OFAC. The EAR governs products, parts, technology and software which present military or weapons proliferation concerns, so-called “dual use” items, and ITAR governs military items listed on the United States Munitions List. Prior to shipping certain items, we must obtain an export license or verify that license exemptions are available. Any failures to comply with these laws and regulations could result in fines, adverse publicity and restrictions on our ability to export our products, and repeat failures could carry more significant penalties.

Violations of anti-corruption and trade control laws and sanctions regulations are punishable by civil penalties, including fines, denial of export privileges, injunctions, asset seizures, debarment from government contracts and revocations or restrictions of licenses, as well as criminal fines and imprisonment. We have established policies and procedures designed to assist our compliance with applicable U.S. and international anti-corruption and trade control laws and regulations, including the FCPA, the Bribery Act and trade controls and sanctions programs administered by OFAC, the DDTC and BIS, and have trained our employees to comply with these laws and regulations. However, there can be no assurance that all of our employees, consultants, agents or other associated persons will not take actions in violation of our policies and these laws and regulations, and that our policies and procedures will effectively prevent us from violating these regulations in every transaction in which we may engage or provide a defense to any alleged violation. In particular, we may be held liable for the actions that our joint venture partners take inside or outside of the United States, even though our partners may not be subject to these laws. Such a violation, even if our policies prohibit it, could have an adverse effect on our reputation, business, financial condition and results of operations. In addition, various state and municipal governments, universities and other investors maintain prohibitions or restrictions on investments in companies that do business with sanctioned countries, persons and entities, which could adversely affect our reputation, business, financial condition and results of operations.

Changes in, or interpretation of, tax rules and regulations may impact our effective tax rate and future profitability.

We are a U.S. based, multinational company subject to taxation in multiple U.S. and foreign tax jurisdictions. Our future effective tax rates could be adversely affected by changes in statutory tax rates or interpretation of tax rules and regulations in jurisdictions in which we do business, changes in the amount of revenue or earnings in the countries with varying statutory tax rates, or by changes in the valuation of deferred tax assets and liabilities.

In addition, we are subject to audits and examinations of previously filed income tax returns by the Internal Revenue Service (“IRS”) and other domestic and foreign tax authorities. We regularly assess the potential impact of such examinations to determine the adequacy of our provision for income taxes and have reserved for potential adjustments that we expect may result from the current examinations. We believe such estimates to be reasonable; however, there is no assurance that the final determination of any examination will not have an adverse effect on our operating results and financial position.

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

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



subject to any liability as a result of activities involving hazardous materials, our business and financial condition may be adversely affected and our reputation may be harmed.

Regulations related to conflict-free minerals may cause us to incur additional expenses and may create challenges with our customers.

The Dodd-Frank Wall Street Reform and Consumer Protection Act contains provisions to improve transparency and accountability regarding the use of “conflict” minerals mined from the Democratic Republic of Congo (the “DRC”) and adjoining countries. The SEC has established annual disclosure and reporting requirements for those companies who use “conflict” minerals sourced from the DRC and adjoining countries in their products. These requirements could adversely affect the sourcing, supply and pricing of materials used in our products. As there may be only a limited number of suppliers offering conflict-free minerals, we cannot ensure that we will be able to obtain these conflict-free minerals in sufficient quantities or at competitive prices. Compliance with these requirements may also increase our costs, including costs that may be incurred in conducting due diligence procedures to determine the sources of certain minerals used in our products and other potential changes to products, processes or sources of supply as a consequence of such verification activities. In addition, we may face challenges with our customers if we are unable to sufficiently verify the origins of the minerals used in our products.

Our common stock price has been and may continue to be volatile.

The market price of our common stock has experienced, and may continue to experience, considerable volatility. Between January 1, 2014 and December 31, 2015, the trading price of our common stock has ranged from a low of \$8.44 per share to a high of \$97.28 per share. Numerous factors could have a significant effect on the price of our common stock, including those described or referred to in this “Risk Factors” section of this Form 10-K, as well as, among other things:

- Our perceived value in the securities markets;
- Overall trends in the stock market;
- Announcements of fluctuations in our operating results or the operating results of one or more of our competitors;
- The impact of changes in our results of operations, our financial condition or our prospects;
- Future sales of our common stock or other securities (including any shares issued in connection with earn-out obligations for any past or future acquisition);
- Market conditions for providers of products and services such as ours;
- Executive level management uncertainty or change;
- Changes in recommendations or earnings estimates by securities analysts; and
- Announcements of acquisitions by us or one of our competitors.

The number of shares of common stock issuable in a stock offering, the issuance of restricted stock awards or the issuance of shares in connection with certain acquisitions or the conversion of the notes could dilute the ownership interest of existing stockholders and may affect the market price for our common stock.

We may issue additional securities, from time to time, as necessary to provide flexibility to execute our growth strategy.

Our Certificate of Incorporation, as amended, authorizes our issuance of up to a total 220.0 million shares of common stock, of which 113.1 million shares have been issued or are otherwise currently reserved for issuance. Future issuances could have the effect of diluting our earnings per share as well as our existing stockholders' individual ownership percentages and could lead to volatility in our common stock price.

Additionally, subject to the limitations of our Certificate of Incorporation and applicable law, we are not restricted from issuing additional common stock, including securities that are convertible into or exchangeable for, or that represent the right to receive, common stock. The issuance of additional shares of our common stock in connection with future acquisitions or other issuances of our common stock or convertible securities, including outstanding options, may dilute the ownership interest of our common stockholders.

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.

Our Board of Directors is authorized to issue up to 5 million shares of preferred stock.

The Board of Directors is authorized to issue up to 5 million shares of preferred stock, none of which is currently issued or outstanding. The Board of Directors is authorized to issue these shares of preferred stock in one or more classes or series without further action of the stockholders and in that regard to determine the issue price, rights, preferences and privileges of any such class or series of preferred stock generally without any further vote or action by the stockholders. The rights of the holders of any outstanding series of preferred stock may adversely affect the rights of holders of common stock.

Our ability to issue preferred stock gives us flexibility concerning possible acquisitions and financings, but it could make it more difficult for a third party to acquire a majority of our outstanding common stock. In addition, any preferred stock that is issued may have other rights, including dividend rights, liquidation preferences and other economic rights, senior to the common stock, which could have an adverse effect on the market value of our common stock.

Certain provisions of Delaware law contain anti-takeover provisions that may make it more difficult to effect a change in our control.

Certain provisions of the Delaware General Corporation Law could delay or prevent an acquisition or change in control or the replacement of our incumbent directors and management, even if doing so might be beneficial to our stockholders by providing them with the opportunity to sell their shares, possibly at a premium over the then market price of our common stock. One of these Delaware laws prohibits us from engaging in a business combination with any interested stockholder (as defined in the statute) for a period of three years from the date that the person became an interested stockholder, unless certain conditions are met.

Item 1B. Unresolved Staff Comments

None.

## Item 2. Properties

We occupy an 80,000 square foot headquarters and research and development facility in Rock Hill, South Carolina, which we lease pursuant to a lease agreement with Lex Rock Hill, LP. After its initial term ending August 31, 2021, the lease provides us with the option to renew the lease for two additional five-year terms. The lease is a triple net lease and provides for the payment of base rent of approximately \$0.7 million annually from 2015 through 2020, with a rent escalation in 2016 through 2021. Under the terms of the lease, we are obligated to pay all taxes, insurance, utilities and other operating costs with respect to the leased premises.

We own our Lawrenceburg, Tennessee and Tulsa, Oklahoma production facilities and lease various other facilities throughout the world. The table below summarizes our facilities greater than 10,000 square feet per location.

Location	Square Feet	Primary Function
Rock Hill, South Carolina	200,000	Manufacturing and warehouse
Wilsonville, Oregon	88,300	Research and development
Rock Hill, South Carolina	80,000	Headquarters, research and development and sales
Littleton, Colorado	70,000	Production and research and development and sales
Andover, Massachusetts	57,600	Manufacturing and research and development
Tulsa, Oklahoma	44,000	On-demand parts services
Sao Paulo, Brazil	37,000	On-demand parts services and sales
Lawrenceburg, Tennessee	36,000	On-demand parts services
Riom, France	33,300	Manufacturing and research and development and sales
Turin, Italy	32,300	On-demand parts services
Seoul, Korea	30,900	Research and development and sales
Barberton, Ohio	30,500	Manufacturing and research and development and sales
Seattle, Washington	29,400	On-demand parts services
Leuven, Belgium	28,400	On-demand parts services and research and development
Herndon, Virginia	27,000	Manufacturing and research and development and sales
Tel Aviv, Israel	26,000	Manufacturing, warehouse, research and development and sales
Burbank, California	23,000	On-demand parts services and sales
Moorpark, California	22,500	Manufacturing and research and development and sales
Golden, Colorado	22,400	Production and research and development and sales
High Wycombe, United Kingdom	22,300	On-demand parts services
Cary, North Carolina	21,800	Research and development and sales
Le Mans, France	21,200	On-demand parts services
Shanghai, China	21,000	On-demand parts services and sales
Budel, Netherlands	19,900	On-demand parts services
Langhorne, Pennsylvania	18,800	On-demand parts services
Wuxi, China	18,300	On-demand parts services and sales
Tel Aviv, Israel	16,600	Research and development and sales

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Marly, Switzerland	15,300	Production and research and development and sales
Hemel Hempstead, United Kingdom	12,400	General and corporate
Valencia, California	11,000	Research and development
Atlanta, Georgia	10,900	On-demand parts services

Item 3. Legal Proceedings

For information relating to legal proceedings, see Note 22 to the Consolidated Financial Statements.

Item 4. Mine Safety Disclosures

Not applicable.

## PART II

## Item 5. Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Our common stock is listed on the New York Stock Exchange (“NYSE”) under the trading symbol “DDD.” The following table sets forth, for the periods indicated, the range of high and low prices of our common stock, \$0.001 par value, as quoted on the NYSE.

Year	Period	High	Low
2014	Q1	\$ 97.28	\$ 54.63
	Q2	61.03	43.35
	Q3	69.56	46.05
	Q4	46.15	27.46
2015	Q1	\$ 33.97	\$ 26.29
	Q2	32.88	19.43
	Q3	19.68	10.85
	Q4	13.93	8.44

As of March 7, 2016, our outstanding common stock was held by approximately 967 stockholders of record. This figure does not reflect the beneficial ownership of shares held in the nominee name.

## Dividends

We do not currently pay, and have not paid, any dividends on our common stock, and we currently intend to retain any future earnings for use in our business. Any future determination as to the declaration of dividends on our common stock will be made at the discretion of the Board of Directors and will depend on our earnings, operating and financial condition, capital requirements and other factors deemed relevant by the Board of Directors, including the applicable requirements of the Delaware General Corporation Law, which provides that dividends are payable only out of surplus or current net profits.

The payment of dividends on our common stock may be restricted by the provisions of credit agreements or other financing documents that we may enter into or the terms of securities that we may issue from time to time. Currently,

no such agreements or documents limit our declaration of dividends or payments of dividends, other than our \$150 million five-year revolving, unsecured credit facility with PNC, which limits the amount of cash dividends that we may pay in any one fiscal year to \$30.0 million.

#### Issuance of Unregistered Securities and Issuer Purchases of Equity Securities

We did not repurchase any of our equity securities during the year ended 2015, except for unvested restricted stock awards repurchased or forfeited pursuant to our 2004 and 2015 Incentive Stock Plans. See Note 14 to the Consolidated Financial Statements. For information regarding the securities authorized for issuance under our equity compensation plans, see “Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters – Equity Compensation Plans” under Part III, Item 12 of this Form 10-K. Also see Note 14 to the Consolidated Financial Statements.

#### Issuer purchases of equity securities

	(a)	(b)	(c)	(d)
	Total number of shares (or units) purchased	Average price paid per share (or unit)	Total number of shares (or units) purchased as part of publically announced plans or programs	Maximum number (or approximate dollar value) of shares (or units) that may yet be purchased under the plans or programs
October 1, 2015 - October 31, 2015	—	\$ —	—	\$ —
November 1, 2015 - November 30, 2015	20,123	(a) 9.01	(a) —	—
December 1, 2015 - December 31, 2015	—	—	—	—
Total	20,123	\$ 9.01	—	\$ —



- (a) Reflects shares of common stock surrendered to the Company for payment of tax withholding obligations in connection with the vesting of restricted stock. The average price paid reflects the average market value of shares withheld for tax purposes.

#### Stock Performance Graph

The graph below shows, for the five years ended December 31, 2015, the cumulative total return on an investment of \$100 assumed to have been made on December 31, 2010 in our common stock. For purposes of the graph, cumulative total return assumes the reinvestment of all dividends. The graph compares such return with those of comparable investments assumed to have been made on the same date in (a) the NYSE Composite Index, (b) the S&P 500 Information Technology Index, and (c) the S&P Mid-Cap 400 Index, which are published market indices with which we are sometimes compared.

Although total return for the assumed investment assumes the reinvestment of all dividends on December 31 of the year in which such dividends were paid, we paid no cash dividends on our common stock during the periods presented.

Our common stock is listed on the NYSE (trading symbol: DDD).

#### COMPARISON OF 5-YEAR CUMULATIVE TOTAL RETURN\*

\* \$100 invested on 12/31/10 in stock or index, including reinvestment of dividends. Fiscal year ending December 31.

12/10      12/11      12/12      12/13      12/14      12/15

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3D Systems Corporation	\$	100	\$	91	\$	339	\$	885	\$	313	\$	83
NYSE Composite Index		100		96		112		142		151		145
S&P 500 Information Technology Index		100		102		118		151		181		192
S&P 500 Mid-Cap 400 Index		100		98		116		155		170		166

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## Item 6. Selected Financial Data

The selected consolidated financial data set forth below for the five years ended December 31, 2015 have been derived from our historical Consolidated Financial Statements. You should read this information together with Management's Discussion and Analysis of Financial Condition and Results of Operations, the notes to the selected consolidated financial data and the Consolidated Financial Statements and the notes thereto for December 31, 2015 and prior years included in this Form 10-K.

(in thousands, except per share amounts)	Year ended December 31,				
	2015	2014	2013	2012	2011
Consolidated Statement of Operations and Other Comprehensive Income (Loss) Data:					
Consolidated Revenue:					
Products	\$ 257,379	\$ 283,339	\$ 227,627	\$ 126,798	\$ 66,665
Materials	150,740	158,859	128,405	103,182	70,641
Services	258,044	211,454	157,368	123,653	93,117
Total	666,163	653,652	513,400	353,633	230,423
Gross profit	291,809	317,434	267,594	181,196	109,028
Impairment of goodwill and other intangible assets (a)	537,179	—	—	—	—
Income (loss) from operations	(641,924)	26,315	80,861	60,571	34,902
Net income (loss) (b)	(663,925)	11,946	44,119	38,941	35,420
Net income (loss) available to common stockholders	(655,492)	11,637	44,107	38,941	35,420
Net income (loss) available to common stockholders per share:					
Basic and diluted	\$ (5.85)	\$ 0.11	\$ 0.45	\$ 0.48	\$ 0.47
Consolidated Balance Sheet Data:					
Working capital	\$ 286,996	\$ 432,864	\$ 416,399	\$ 212,285	\$ 202,357
Total assets (a) (b)	893,275	1,530,310	1,097,856	677,442	462,974
Current portion of debt and capitalized lease obligations	529	684	187	174	163
Long term debt and capitalized lease obligations, less current portion (c)	8,187	8,905	18,693	87,974	138,716
Total stockholders' equity	654,646	1,294,125	933,792	480,333	254,788
Other Data:					
Depreciation and amortization	\$ 83,069	\$ 55,188	\$ 30,444	\$ 21,229	\$ 11,093
Interest expense	2,011	1,227	3,425	12,468	2,090
Capital expenditures (d)	22,399	22,727	6,972	3,224	2,870

- (a) For further discussion of goodwill and other intangible assets impairment, see Notes 2, 6 and 7 to the Consolidated Financial Statements.
- (b) In 2015, based upon our recent results of operations and expectation of profitability in future years, we concluded that it is not more likely than not that our deferred tax assets will be realized in certain jurisdictions, including the US and certain foreign jurisdictions, and as such, we recorded a \$107.3 million valuation allowance against our deferred tax assets. See Note 20 to the Consolidated Financial Statements.
- (c) In 2011, we issued \$152.0 million of 5.50% senior convertible notes. All outstanding notes were converted in the third quarter of 2014.
- (d) Excludes capital lease additions.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis should be read together with the selected consolidated financial data and our Consolidated Financial Statements and notes thereto set forth in this Form 10-K. Certain statements contained in this discussion may constitute forward looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. 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 discussed more fully in this Form 10-K. See "Forward-Looking Statements" and "Risk Factors" in Part I, Item 1A.

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

We provide comprehensive 3D products and services, including 3D printers, print materials, on-demand parts services and digital design and manufacturing tools. Our ecosystem supports advanced applications from the product design shop to the factory floor to the operating room. Our precision healthcare capabilities include simulation, Virtual Surgical Planning and printing of medical and dental devices as well as patient-specific surgical instruments. We enable professionals and companies to optimize their designs, transform their workflows, bring innovative products to market and drive new business models.

Growth strategy

We are pursuing a growth strategy that focuses on strategic initiatives related to profitable growth opportunities in professional and industrial applications. We anticipate the ongoing expansion of 3D printing from the design and prototyping lab to the factory floor, and as the originator and a shaper of future 3D solutions, we plan to continue to invest in advanced developments to enhance and accelerate manufacturing applications, including the development of systems and materials which we believe are critical to driving growth.

We have launched new 3D printers with increased speeds and capabilities and larger build areas as well as introduced print materials with improved strength, temperature, durability and elasticity, developments that we believe are well suited for advanced and demanding professional and industrial applications, including manufacturing of end-use parts. We have also strengthened our software portfolio to help enhance our customers' workflows from design to manufacturing.

We view direct metal 3D printing as a significant growth opportunity and continue to strengthen our capabilities and product offering in metals. We have a team that is focused on advancing our direct metal printing products and services. In addition to our existing portfolio of direct metal printers, we recently launched the new ProX DMP 320 system, designed for high precision, high throughput direct metal printing, with models that are optimized for printing with titanium, stainless steel or nickel super alloy.

We believe healthcare applications will also help drive our growth and profitability. We offer a comprehensive range of products and services that provide solutions from the training room to the operating room. We continue to expand our healthcare focused operations in the U.S. and Europe in support of growth in precision healthcare applications.

We expect to be able to support growth by prioritizing our resources to focus on professional and industrial opportunities and leveraging our technology, domain expertise and strong customer and partner relationships. As with any growth strategy, there can be no assurance that we will succeed in accomplishing our strategic initiatives.

#### Recent Developments

In December 2015, we announced the end-of-life of the Cube, our \$999 consumer 3D printer. The end-of-life of the Cube and related shift away from consumer products reflects management's plans to focus our resources and strategic initiatives on near-term opportunities and profitability.

In January 2016, we launched the ProX DMP 320 printer, designed for high precision, high throughput direct metal printing, with models that are optimized for printing with titanium, stainless steel or nickel super alloy.

## Summary of 2015 Financial Results

We earn revenues from the sale of products, materials and services. Total consolidated revenue for the year ended December 31, 2015 increased by 1.9%, or \$12.5 million, to \$666.2 million, compared to \$653.7 million for the year ended December 31, 2014 and \$513.4 million for the year ended December 31, 2013. These results primarily reflect an increase in services revenue, partially offset by lower sales of 3D printers and materials and an unfavorable impact of foreign currency translation, as further discussed below.

As of December 31, 2015 and 2014, our backlog was \$38.4 million and \$46.5 million, respectively. The decrease reflects our shift away from consumer and retail products and processing of printer orders. Production and delivery of our printers is generally not characterized by long lead times; backlog is more dependent on timing of customers' requested deliveries. In addition, on-demand parts services lead time and backlog depends on whether orders are for rapid prototyping or longer-range production runs. As of December 31, 2015 and 2014, backlog included \$13.0 million and \$13.4 million of on-demand parts services orders, respectively.

We calculate organically generated revenue by comparing this year's total revenue for the period, excluding the revenue recognized from all acquired businesses that we have owned for less than 12 months, to last year's total revenue for the period. Once we have owned a business for one year, the revenue is included in organically generated revenue. For the quarter and full year ended December 31, 2015, organically generated revenue decreased 11.1% and 11.7%, respectively, compared to an increase in organically generated revenue of 7.2% and 13.3%, respectively, for the quarter and full year ended December 31, 2014. The decrease in organic revenue in 2015 primarily reflects the lower sales of 3D printers and materials as well as the unfavorable impact of foreign currency translation.

Healthcare revenue includes sales of products, materials, and services for health-related applications, including simulation, training and planning, and printing of surgical instruments and medical and dental devices. For the quarter ended December 31, 2015, healthcare revenue decreased by 2.2%, or \$1.0 million, to \$41.8 million, and made up 22.8% of total revenue, compared to \$42.8 million, or 22.8% of total revenue for the quarter ended December 31, 2014. For the full year ended December 31, 2015, healthcare revenue increased by 9.1%, or \$11.8 million, to \$141.1 million, and made up 21.2% of total revenue, compared to \$129.3 million, or 19.8% of total revenue, for the full year ended December 31, 2014. Healthcare related revenue growth for the year was driven by our broader range of products and services that resulted from acquisitions and expansion by customers utilizing 3D printing in the manufacturing of medical and dental parts.

Consumer revenue includes sales of our desktop Cube® series 3D printers and their related print materials, Sense 3D scanners and other products and services related to consumer products and retail channels. For the quarter ended December 31, 2015, consumer revenue decreased by 26.2%, or \$3.9 million, to \$11.1 million, and made up 6.0% of total revenue, compared to \$15.0 million, or 8.0% of total revenue for the quarter ended December 31, 2014. For the full year ended December 31, 2015, consumer revenue increased 6.0%, or \$2.7 million, to \$46.5 million, and made up 7.0% of total revenue, compared to \$43.8 million, or 6.7% of total revenue, for the full year ended December 31,

2014. In December 2015, we announced the end-of-life of our \$999 consumer 3D printer, Cube, and our shift away from consumer and retail products and services.

Gross profit for the year ended December 31, 2015 decreased by 8.1%, or \$25.6 million, to \$291.8 million, compared to \$317.4 million for the year ended December 31, 2014, reflecting a decrease in products and materials revenue, coupled with cash and non-cash charges of \$27.4 million related to the end-of-life of the Cube 3D printer and our shift away from consumer products.

Gross profit margin for the years ended December 31, 2015 and 2014 was 43.8%, and 48.6%, respectively, reflecting a decrease in products margins, which was driven by cash and non-cash charges related to the end-of-life of the Cube 3D printer and our shift away from consumer products, which more than offset higher materials and services margins.

Operating expenses for the year ended December 31, 2015 increased by 220.7%, or \$642.6 million, to \$933.7 million, compared to \$291.1 million for the year ended December 31, 2014. These results reflect goodwill and other intangible asset impairment charges of \$443.7 million and \$93.5 million, respectively, arising from our annual impairment testing process, which uses a cash flow model that factors in business and market conditions, including slower sustained growth of products and services revenue. See Note 2 to the Consolidated Financial Statements for further discussion of our annual goodwill impairment testing. Excluding the goodwill and other intangible assets impairment charges, operating expenses increased \$105.4 million on higher selling, general and administrative expenses primarily due to costs related to acquisitions, including amortization expense and higher compensation and travel expenses, in addition to a \$17.4 million increase in research and development expenses related to our portfolio expansion and development of new products.



Our operating loss for the year ended December 31, 2015 was \$641.9 million, compared to operating income of \$26.3 million for the year ended December 31, 2014, reflecting goodwill and other intangible assets impairment charges, higher operating expenses as described in more detail below, and lower gross profit.

For the year ended December 31, 2015, we used \$3.1 million of cash in operations, which is described in further detail below. We used \$120.9 million to fund our strategic investing activities for year ended December 31, 2015, including acquisition costs and capital expenditures related to infrastructure and on-demand parts expansion. Financing activities for the year ended December 31, 2015 used \$2.2 million of cash, described in further detail below. In total, our unrestricted cash balance at December 31, 2015 and 2014, was \$155.6 million and \$284.9 million, respectively.

### Results of Operations for 2015, 2014 and 2013

#### Revenue by class of product and service

#### 2015 compared to 2014

Table 1 below sets forth revenue and percentage of revenue by class of product and service for 2015 compared to 2014.

Table 1

(Dollars in thousands)	Products		Materials		Services		Totals	
Revenue – 2014	\$ 283,339	43.3 %	\$ 158,859	24.3 %	\$ 211,454	32.4 %	\$ 653,652	100 %
Change in revenue:								
Volume								
Core products and services	26,623	9.4	19,594	12.3	79,200	37.5	125,417	19.2
New products and services	(32,297)	(11.4)	(31,285)	(19.7)	(15,233)	(7.2)	(78,815)	(12.1)
Price/Mix	(1,744)	(0.6)	13,495	8.5	—	—	11,751	1.8
Foreign currency translation	(18,542)	(6.5)	(9,923)	(6.2)	(17,377)	(8.2)	(45,842)	(7.0)
Net change	(25,960)	(9.1)	(8,119)	(5.1)	46,590	22.1	12,511	1.9

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Revenue – 2015            \$ 257,379   38.6 %   \$ 150,740   22.6 %   \$ 258,044   38.8 %   \$ 666,163   100.0 %

Total consolidated revenue increased by 1.9%, primarily due to an increase in services revenue, partially offset by a decrease in products and materials volume and an unfavorable foreign currency impact.

The decrease in products revenue was primarily driven by lower sales of 3D printers coupled with an unfavorable foreign currency impact.

The products category includes 3D printers, healthcare simulators and digitizers and design tools including software products, scanners and haptic devices. For the year ended December 31, 2015, software revenue, including scanners and haptic devices, contributed \$44.3 million, compared to \$20.1 million for the year ended December 31, 2014, primarily reflecting expanded software products from our acquisition of Cimatron in 2015.

Due to the relatively high price of certain 3D printers and a corresponding lengthy selling cycle and relatively low unit volume of the higher priced professional printer sales in any particular period, a shift in the timing and concentration of orders and shipments from one period to another can affect reported revenue in any given period. Revenue reported in any particular period is also affected by timing of revenue recognition under rules prescribed by U.S. generally accepted accounting principles.

The decrease in materials revenue was primarily driven by softness in demand for printers and timing of sales of materials. For the year ended December 31, 2015, sales of integrated materials decreased by 0.2% to \$116.2 million and represented 77.1% of total materials revenue, compared to 73.3% for the year ended December 31, 2014.

The increase in services revenue primarily reflects our expanded offerings of services. For the year ended December 31, 2015, services revenue from on-demand parts increased 4.1%, to \$127.4 million, compared to \$122.4 for the year ended December 31, 2014. For the years ended December 31, 2015 and 2014, revenue from software services was \$33.8 million and \$15.2 million, respectively, primarily reflecting expanded software products, including the acquisition of Cimatron in 2015.

In addition to changes in sales volumes, including the impact of revenue from acquisitions, there are two other primary drivers of changes in revenue from one period to another: the combined effect of changes in product mix and average selling prices, sometimes referred to as price and mix effects, and the impact of fluctuations in foreign currencies.

As used in this Management's Discussion and Analysis, the price and mix effects relate to changes in revenue that are not able to be specifically related to changes in unit volume. Among these changes are changes in the product mix of our materials and our printers as the trend toward smaller, lower-priced printers has continued and the influence of new printers and materials on our operating results has grown.

#### 2014 compared to 2013

Table 2 sets forth the change in revenue by class of product and service for 2014 compared to 2013.

Table 2

(Dollars in thousands)	Products		Materials		Services		Total	
2013 Revenue	\$ 227,627	44.3 %	\$ 128,405	25.0 %	\$ 157,368	30.7 %	\$ 513,400	100.0 %
Change in revenue:								
Volume								
Core products and services	39,053	17.2	24,778	19.3	40,726	25.9	104,557	20.4
New products and services	18,588	8.2	8,053	6.3	13,474	8.6	40,115	7.8
Price/Mix	(494)	(0.2)	(1,836)	(1.4)	—	—	(2,330)	(0.5)
Foreign currency translation	(1,435)	(0.6)	(541)	(0.4)	(114)	(0.1)	(2,090)	(0.4)
Net change	55,712	24.6	30,454	23.8	54,086	34.4	140,252	27.3
2014 Revenue	\$ 283,339	43.3 %	\$ 158,859	24.3 %	\$ 211,454	32.4 %	\$ 653,652	100.0 %

The increase in revenue from products for the year ended December 31, 2014 compared to 2013 was driven by increased demand for design and manufacturing printers and added healthcare products.

Software revenue contributed \$20.1 million and \$20.6 million of products revenue for the years ended December 31, 2014 and 2013, respectively.

The increase in revenue from materials was aided by the improvement in sales of 3D printers and the increased utilization of printers installed over past periods. Sales of integrated materials increased 28.5% and represented 73.3% of total materials revenue for the year ended December 31, 2014, compared to 70.6% for the year ended December 31, 2013.

The increase in service revenue primarily reflects the addition of Medical Modeling and Simbionix, coupled with growing On-demand parts, consumer and software services. Service revenue from On-demand parts increased 21.1% to \$122.4 million, or 57.9% of total service revenue, for the year ended December 31, 2014, compared to \$101.1 million, or 64.2%, of total service revenue for the year ended December 31, 2013. For the years ended December 31, 2014 and 2013, software services contributed \$15.2 million and \$8.2 million, respectively.

## Revenue by geographic region

2015 compared to 2014

Table 4 sets forth the change in revenue by geographic area for 2015 compared to 2014:

Table 4

(Dollars in thousands)	Americas		EMEA		Asia Pacific		Total	
Revenue – 2014	\$ 333,925	51.1 %	\$ 196,087	30.0 %	\$ 123,640	18.9 %	\$ 653,652	100 %
Change in revenue:								
Volume	38,699	11.6	25,100	12.8	(17,197)	(13.9)	46,602	7.1
Price/Mix	(10,171)	(3.0)	12,529	6.4	9,393	7.6	11,751	1.8
Foreign currency translation	(4,477)	(1.3)	(33,612)	(17.1)	(7,753)	(6.3)	(45,842)	(7.0)
Net change	24,051	7.3	4,017	2.1	(15,557)	(12.6)	12,511	1.9
Revenue – 2015	\$ 357,976	53.7 %	\$ 200,104	30.0 %	\$ 108,083	16.3 %	\$ 666,163	100 %

The growth in the Americas and EMEA for the year ended December 31, 2015 was driven by an increase in services revenue, while continued macroeconomic weaknesses compressed printers and materials revenue in the Asia Pacific region.

For the year ended December 31, 2015, revenue from operations outside the Americas decreased by 3.6%, to \$308.2 million, compared to \$319.7 million for the year ended December 31, 2014, due to the decrease in revenue in the Asia Pacific region.

For the year ended December 31, 2015 revenue from operations outside the U.S. as a percent of total revenue was 49.0%, compared to 49.1% for the year ended December 31, 2014.

Excluding the effect of foreign currency translation on revenues outside the U.S. would result in growth of 8.9% for the year ended December 31, 2015.

2014 compared to 2013

All geographic regions experienced higher levels of revenue in 2014 compared to 2013. Table 5 sets forth the change in revenue by geographic area for 2014 compared to 2013:

Table 5

(Dollars in thousands)	Americas		EMEA		Asia Pacific		Total	
2013 Revenue	\$ 284,752	55.4 %	\$ 133,781	26.1 %	\$ 94,867	18.5 %	\$ 513,400	100.0 %
Change in revenue:								
Volume	51,791	18.2	57,067	42.7	35,814	37.8	144,672	28.2
Price/Mix	(2,534)	(0.9)	3,517	2.6	(3,313)	(3.5)	(2,330)	(0.5)
Foreign currency translation	(84)	0.0	1,722	1.3	(3,728)	(3.9)	(2,090)	(0.4)
Net change	49,173	17.3	62,306	46.6	28,773	30.4	140,252	27.3
2014 Revenue	\$ 333,925	51.1 %	\$ 196,087	30.0 %	\$ 123,640	18.9 %	\$ 653,652	100.0 %

The growth across all regions for the year ended December 31, 2014 was driven by an increase in volume of products and services revenue.

For the year ended December 31, 2014, revenue from operations outside the Americas increased by 39.8%, to \$319.7 million, compared to \$228.6 million for the year ended December 31, 2013.

Excluding the effect of foreign currency translation on revenues outside the U.S. would result in growth of 27.8% for the year ended December 31, 2014.

## Gross profit and gross profit margins

2015 compared to 2014

Table 6 sets forth gross profit and gross profit margins for our products and services for 2015 compared to 2014.

Table 6

	Year Ended December 31,				Change in Gross Profit		Change in Gross Profit Margin	
	2015		2014		Change in Gross Profit	Change in Gross Profit Margin	Change in Gross Profit Margin	
	Gross Profit	Gross Profit Margin	Gross Profit	Gross Profit Margin			Points	Percentage
(Dollars in thousands)					\$	%	Points	%
Products	\$ 50,304	19.5 %	\$ 101,681	35.9 %	\$ (51,377)	(50.5)%	(16.4)	(45.7)%
Materials	114,176	75.7	116,526	73.4	(2,350)	(2.0)	2.3	3.1
Services	127,329	49.3	99,227	46.9	28,102	28.3	2.4	5.1
Total	\$ 291,809	43.8 %	\$ 317,434	48.6 %	\$ (25,625)	(8.1) %	(4.8)	(9.9) %

Total consolidated gross profit decreased, primarily driven by cash and non-cash charges related to the end-of-life of the Cube 3D printer and our shift away from consumer products, in addition to lower products revenue, as discussed below.

Gross profit margin for products decreased primarily due to lower sales of 3D printers, coupled with cash and non-cash charges of approximately \$27.4 million related to the end-of-life of the Cube 3D printer and our shift away from consumer products, which more than offset increased contributions from higher margin software and healthcare products. See Note 4 to the Consolidated Financial Statements.

Gross profit margin for materials increased, reflecting a favorable mix of materials sold during the period and improved supply chain efficiencies in materials production.

Gross profit margin for services increased primarily due to the addition of higher margin healthcare and software services. On-demand parts services gross profit margin increased to 43.9% for the year ended December 31, 2015, compared to 43.5% for the year ended December 31, 2014.

2014 compared to 2013

Table 7 sets forth gross profit and gross profit margins for our products and services for 2014 compared to 2013.

Table 7

	Year Ended December 31,				Change in Profit		Change in Gross Profit Margin	
	2014		2013					
	Gross Profit	Gross Profit Margin	Gross Profit	Gross Profit Margin	\$	%	Points	%
(Dollars in thousands)								
Products	\$ 101,681	35.9 %	\$ 101,838	44.7 %	\$ (157)	(0.2) %	(8.8)	(19.7) %
Materials	116,526	73.4	94,581	73.7	21,945	23.2	(0.3)	(0.4)
Services	99,227	46.9	71,175	45.2	28,052	39.4	1.7	3.8
Total	\$ 317,434	48.6 %	\$ 267,594	52.1 %	\$ 49,840	18.6 %	(3.5)	(6.7) %

The lower consolidated gross profit margin reflects a change in revenue mix with a higher portion of revenue from lower margin products, both overall and within categories, as well as availability of new products and new product startup costs.

Despite the addition of higher margin healthcare products and the contribution of software, products gross profit margin decreased due to sales mix coupled with manufacturing expansion and residual new product start-up costs.



Gross profit for materials increased primarily due to the mix of materials sold during the year.

The increase in gross profit margin for services was primarily due to the addition of higher margin healthcare services and an increase in on-demand parts services gross profit margin, to 43.5% for the year ended December 31, 2014, compared to 42.9% for the year ended December 31, 2013.

#### Operating expenses

2015 compared to 2014

Table 8 sets forth the components of operating expenses for 2015 compared to 2014.

Table 8

	Year Ended December 31,				Change	
	2015	2014	2015	2014		
(Dollars in thousands)	Amount	% Revenue	Amount	% Revenue	\$	%
Selling, general and administrative expenses	\$ 303,784	45.6 %	\$ 215,724	33.0 %	\$ 88,060	40.8 %
Research and development expenses	92,770	13.9	75,395	11.5	17,375	23.0
Impairment of goodwill and other intangible assets	537,179	80.6	—	—	537,179	NA
Total operating expenses	\$ 933,733	140.1 %	\$ 291,119	44.5 %	\$ 642,614	220.7 %

Total operating expenses increased, reflecting impairment charges related to goodwill and other intangible assets that were recorded in the fourth quarter of 2015, in addition to higher selling, general and administrative expenses and higher research and development expenses, as discussed below.

Selling, general and administrative expenses increased due primarily to a \$37.9 million increase in compensation costs due to acquisitions and increased staffing, a \$21.6 million increase in amortization, an \$11.3 million arbitration award expense recorded in the third quarter of 2015 related to an earnout in connection with an acquisition completed in

2011, a \$4.6 million increase in marketing expenses, a \$2.5 million increase in travel expenses and a \$1.4 million increase in outside consulting services.

Research and development expenses increased primarily due to an \$11.0 million increase in compensation costs related to acquisitions and increased staffing and a \$5.7 million increase in outside services associated with product development.

In connection with our annual goodwill and other intangible assets testing, we recorded goodwill and other intangible asset impairment charges of \$537.2 million related to our geographic reporting units. See Notes 2, 6 and 7 to the Consolidated Financial Statements.

2014 compared to 2013

Table 9 sets forth the components of operating expenses for 2014 compared to 2013.

Table 9

	Year Ended December 31				Change	
	2014		2013			
(Dollars in thousands)	Amount	% Revenue	Amount	% Revenue	\$	%
Selling, general and administrative expenses	\$ 215,724	33.0 %	\$ 143,244	27.9 %	\$ 72,480	50.6 %
Research and development expenses	75,395	11.5	43,489	8.5	31,906	73.4
Total operating expenses	\$ 291,119	44.5 %	\$ 186,733	36.4 %	\$ 104,386	55.9 %

The increase in selling, general and administrative expenses was primarily due to increased sales and marketing expenses and higher staffing due to our expanding portfolio and included a \$34.9 million increase in salary, benefits and contract labor costs, an \$18.7 million increase in amortization expense primarily due to intangible assets from acquired businesses, a \$3.7 million increase in bad debt expense, a \$2.5 million increase in consulting fees, a \$2.1 million increase in marketing expenses, a \$1.5 million increase in legal expense and a \$1.2 million increase in occupancy expense.

The increase in research and development expenses was primarily driven by a \$17.7 million increase in R&D salary and compensation expenses related to talent expansion, a \$4.8 million increase in supplies and materials in support of our accelerated new product developments and investments, a \$2.2 million increase in outside consulting and outsourcing services and a \$1.9 million increase in depreciation and amortization.

#### Income from operations

Table 10 sets forth income from operations by geographic area for 2015, 2014 and 2013.

Table 10

(Dollars in thousands)	Year Ended December 31,		
	2015	2014	2013
Income (loss) from operations			
Americas	\$ (587,435)	\$ (24,663)	\$ 43,743
Germany	337	2,749	302
Other EMEA	(82,593)	9,181	7,849
Asia Pacific	29,639	40,131	30,499
Subtotal	(640,052)	27,398	82,393
Inter-segment elimination	(1,872)	(1,083)	(1,532)
Total	\$ (641,924)	\$ 26,315	\$ 80,861

The decrease in operating income was due to increased operating expenses, including goodwill and other intangible asset impairment charges of \$474.5 million in the Americas and \$62.7 million in EMEA, which more than offset the increased revenue and gross profit. See “Gross profit and gross profit margins” and “Operating expenses” above.

With respect to the Americas, in 2015, 2014 and 2013, the changes in operating income by geographic area reflected the same factors relating to our consolidated operating income that are discussed above.

The changes in operating income in our operations outside the Americas in each of 2015, 2014 and 2013 resulted primarily from transfer pricing, changes in sales volume and foreign currency translation as well as goodwill and intangibles impairment charges in EMEA that are discussed above.

Interest and other expenses, net

Table 11 sets forth the components of interest and other expenses, net, for 2015, 2014 and 2013.

Table 11

(Dollars in thousands)	Year Ended December 31,		
	2015	2014	2013
Interest and other expense, net:			
Interest income	\$ 521	\$ 482	\$ 1,258
Foreign exchange loss	(3,263)	(5,727)	(773)
Interest expense	(2,011)	(1,227)	(3,425)
Other expense, net	(8,276)	(2,456)	(13,915)
Total interest and other expense, net	\$ (13,029)	\$ (8,928)	\$ (16,855)

For the year ended December 31, 2015, other expense, net, includes impairment charges of \$7.4 million related to certain minority investments of less than 20% ownership, for which we do not exercise significant influence. See Note 2 to the Consolidated Financial Statements. For the year ended December 31, 2013, we recognized an \$11.3 million loss on conversion of convertible notes in other expense, net. All outstanding notes were converted during 2014, at which time a \$1.8 million loss was recorded in other expense, net.

#### Benefit and provision for income taxes

We recorded a \$9.0 million, \$5.4 million and \$19.9 million provision for income taxes for the years ended December 31, 2015, 2014 and 2013, respectively.

In 2015, this expense primarily reflected a \$5.5 million U.S. tax expense and \$3.5 million of tax expense in foreign jurisdictions. In 2014, this expense primarily reflected a \$1.7 million U.S. tax expense and \$3.7 million of tax expense in foreign jurisdictions. In 2013, this expense primarily reflected an \$18.4 million U.S. tax expense and \$1.5 million of tax expense in foreign jurisdictions.

During 2015, we concluded that it is more likely than not that our deferred tax assets will not be realized in certain jurisdictions, including the US and certain foreign jurisdictions, and as such, we recorded a \$107.3 million valuation allowance against our deferred tax assets. During 2014 and 2013, based upon our results of operations and expected profitability in the future, we concluded that it was more likely than not that all our deferred tax assets will be realized, and as a result, no valuation allowances were recorded for 2014 and 2013.

For further discussion, see Notes 2 and 20 to the Consolidated Financial Statements.

Net income (loss); net income (loss) available to 3D Systems common stockholders

2015 compared to 2014

Table 12 sets forth the primary components of net income attributable to 3D Systems for 2015 compared to 2014.

Table 12

(Dollars in thousands)	Year Ended December		
	31, 2015	2014	Change
Operating income (loss)	\$ (641,924)	\$ 26,315	\$ (668,239)
Less:			
Interest and other expense, net	13,029	8,928	4,101
Provision for income taxes	8,972	5,441	3,531
Net income (loss) attributable to noncontrolling interests	(8,433)	309	(8,742)
Net income (loss) attributable to 3D Systems	\$ (655,492)	\$ 11,637	\$ (667,129)
Weighted average shares, basic and diluted	111,969	108,023	
Earnings (loss) per share, basic and diluted	\$ (5.85)	\$ 0.11	

The principal reasons for our lower net income for the year ended December 31, 2015, which are discussed in more detail above, were a decrease in gross profit and increased operating expenses as a result of \$537.2 million of impairment charges related to goodwill and other intangible assets, costs related to acquisitions, including higher amortization, compensation and travel expenses, in addition to higher research and development expenses related to our portfolio expansion and development of new products. See “Gross profit and gross profit margins” and “Operating expenses” above.

For the years ended December 31, 2015 and 2014, the average outstanding diluted shares calculation excluded restricted stock units and shares that may have been issued upon conversion of the outstanding senior convertible notes because the effect of their inclusion would have been anti-dilutive resulting in an increase to the net earnings per share. All senior convertible notes were converted in 2014.

For further discussion, see Notes 17 and 24 to the Consolidated Financial Statements.

2014 compared to 2013

Table 13 sets forth the primary components of net income attributable to 3D Systems for 2014 compared to 2013.

Table 13

(Dollars in thousands)	Year Ended December		
	2014	2013	Change
Operating income (loss)	\$ 26,315	\$ 80,861	\$ (54,546)
Less:			
Interest and other expense, net	8,928	16,855	(7,927)
Provision for income taxes	5,441	19,887	(14,446)
Net income attributable to noncontrolling interests	309	12	297
Net income attributable to 3D Systems	\$ 11,637	\$ 44,107	\$ (32,470)
Weighted average shares, basic and diluted	108,023	98,393	
Earnings per share, basic and diluted	\$ 0.11	\$ 0.45	

The principal reasons for our lower net income for the year ended December 31, 2014, which are discussed in more detail above, was a decrease in gross profit and higher operating expenses as a result of higher sales and marketing and R&D expense in support of concentrated new product launches and channel expansion and training. See “Gross profit and gross profit margins” and “Operating expenses” above.

For the years ended 2014 and 2013, the average outstanding diluted shares calculation excluded shares that may have been issued upon conversion of the outstanding senior convertible notes because the effect of their inclusion would have been anti-dilutive resulting in an increase to the net earnings per share. All senior convertible notes were converted in 2014.

In February 2013, we announced a three-for-two stock split, in the form of a stock dividend. Trading began on a split-adjusted basis on February 28, 2013.

Other Financial Information

In addition to our results determined under U.S. generally accepted accounting principles (“GAAP”) discussed above, management believes non-GAAP financial measures, which adjust net income and earnings per share are useful to investors in evaluating our operating performance.

We also use non-GAAP financial measures of adjusted net income and adjusted earnings per share to supplement our Consolidated Financial Statements presented on a GAAP basis to facilitate a better understanding of the impact that several strategic acquisitions had on our financial results.

These non-GAAP financial measures have not been prepared in accordance with GAAP and may be different from non-GAAP financial measures used by other companies and they are subject to inherent limitations as they reflect the exercise of judgments by our management about which costs, expenses and other items are excluded from our GAAP financial statements in determining our non-GAAP financial measures. We have sought to compensate for these limitations by analyzing current and expected future results on a GAAP basis as well as a non-GAAP basis and also by providing GAAP financial statements as required in our public disclosures as well as reconciliations of our non-GAAP financial measures of adjusted net income and adjusted earnings per share to our GAAP financial statements.

Our non-GAAP financial measures, which adjust net income (loss) and earnings (loss) per share, are not meant to be considered in isolation or as a substitute for the directly comparable financial measures prepared in accordance with GAAP. These non-GAAP financial measures are meant to supplement, and be viewed in conjunction with, GAAP financial measures. We urge investors to review the reconciliation of our non-GAAP financial measures to the comparable GAAP financial measures included below, and not to rely on any single financial measure to evaluate our business. Our non-GAAP financial measures, which adjust net income and earnings per share, are adjusted for the following:



Acquisition and severance expenses. We exclude the tax-effected charges associated with the acquisition of businesses and the related severance expenses from our operating expenses.

Amortization of intangibles. We exclude the tax-effected amortization of intangible assets from our cost of sales and operating expenses. The increase in recent periods is primarily in connection with acquisitions of businesses.

Arbitration award. We exclude tax-effected expenses associated with litigation awards and settlements.

Charges related to shift away from consumer products and services. We exclude the tax-effected, cash and non-cash charges associated with our shift away from consumer products and services, including charges related to the write-down of inventory in connection with the end-of-life of our Cube consumer 3D printer.

Impairment of goodwill and other intangible assets. We exclude the tax-effected non-cash charges associated with goodwill and other intangible asset impairment.

Loss on convertible notes. We exclude the tax-effected loss on conversion of convertible notes from interest and other expenses, net.

Net (gain) loss on litigation and tax settlements. We exclude the tax-effected, net gain or loss on acquisitions and litigation settlements from other expenses, net.

Non-cash interest expense. We exclude tax-effected non-cash interest expenses related to the costs associated with our senior convertible notes, from interest and other expenses, net.

Non-cash stock-based compensation expenses. We exclude the tax-effected stock-based compensation expenses from operating expenses primarily because they are non-cash.

Reconciliation of Non-GAAP Financial Measures to GAAP Financial Measures

Table 14

(in thousands, except per share amounts)	Year Ended December 31,		
	2015	2014	2013
GAAP net income (loss) attributable to 3D Systems Corporation	\$ (655,492)	\$ 11,637	\$ 44,107
Cost of sales adjustments:			
Amortization of intangibles	303	281	250
Charges related to shift away from consumer products and services — cash	8,771	—	—
Charges related to shift away from consumer products and services — non-cash	18,619	—	—
Operating expense adjustments:			
Amortization of intangibles	60,763	39,193	20,448
Acquisition and severance expenses	9,274	7,994	7,057
Impairment of goodwill and other intangible assets	537,179	—	—
Non-cash stock-based compensation expense	34,733	32,793	13,495
Arbitration award	11,282	—	—
Interest and other expense adjustments:			
Non-cash interest expense	—	225	973
Loss on convertible notes	—	1,806	11,275
Net loss on litigation and tax settlements	—	—	2,457
Tax effect (a)	4,578	(18,810)	(16,327)
Non-GAAP net income	\$ 30,010	\$ 75,119	\$ 83,735
Non-GAAP basic and diluted earnings per share	\$ 0.27	\$ 0.70	\$ 0.85

(a) Tax effect is calculated quarterly, based on the actual tax rate for each quarter.

## Liquidity and Capital Resources

Table 15 sets forth the components of working capital and liquidity.

Table 15

(Dollars in thousands)	At December 31,		Change	
	2015	2014	\$	%
Cash and cash equivalents	\$ 155,643	\$ 284,862	\$ (129,219)	(45.4) %
Accounts receivable:				
Gross accounts receivable	171,545	178,741	(7,196)	(4.0)
Allowance for doubtful accounts	(14,139)	(10,300)	(3,839)	37.3
Accounts receivable, net	157,406	168,441	(11,035)	(6.6)
Inventories:				
Raw materials	59,444	49,456	9,988	20.2
Work in process	4,067	2,304	1,763	76.5
Finished goods	70,591	51,560	19,031	36.9
Inventories, gross	134,102	103,320	30,782	29.8
Inventory reserves	(28,225)	(6,675)	(21,550)	322.8
Inventories, net	105,877	96,645	9,232	9.6
Prepaid expenses and other current assets	13,541	15,769	(2,228)	(14.1)
Current deferred income tax asset	—	14,973	(14,973)	(100.0)
Total current assets	\$ 432,467	\$ 580,690	\$ (148,223)	(25.5) %
Current portion of debt and capitalized lease obligations	529	684	(155)	(22.7)
Accounts payable	46,869	64,378	(17,509)	(27.2)
Accrued and other liabilities	54,699	43,554	11,145	25.6
Customer deposits	8,229	6,946	1,283	18.5
Deferred revenue	35,145	32,264	2,881	8.9
Total current liabilities	\$ 145,471	\$ 147,826	\$ (2,355)	(1.6) %
Working capital	\$ 286,996	\$ 432,864	\$ (145,868)	(33.7) %
Stockholders' equity attributable to 3D Systems Corporation	\$ 655,909	\$ 1,292,918	\$ (637,009)	(49.3) %

We believe our existing cash and cash equivalents will be sufficient to satisfy our working capital needs, capital expenditures, outstanding commitments and other liquidity requirements associated with our existing operations over

the next 12 months or to consummate significant acquisitions of other businesses, assets, products or technologies. However, it is possible that we may need to raise additional funds to finance our activities beyond the next 12 months. If needed, we may be able to raise such funds by issuing equity or debt securities to the public or selected investors, or by borrowing from financial institutions, selling assets or restructuring debt. There is no assurance, however, that funds will be available from these sources in the amounts or on terms acceptable to us. Cash equivalents comprise funds held in money market instruments and are reported at their current carrying value, which approximates fair value due to the short term nature of these instruments. We strive to minimize our credit risk by investing primarily in investment grade, liquid instruments and limit exposure to any one issuer depending upon credit quality. See Cash flow, Credit facilities and Capitalized lease obligations below.

Cash and cash equivalents at December 31, 2015 included \$59.0 million of cash held outside the U.S., compared to \$39.6 million at December 31, 2014. Cash held outside the U.S. is used in our foreign operations for working capital purposes and is considered to be permanently invested; consequently, we have not provided for any taxes on repatriation.

Even though we may not need additional funds, we may still elect to issue additional equity or debt securities or enter into a credit facility for other reasons. If we raise additional funds by issuing equity or convertible debt securities, the ownership percentages of existing shareholders would be diluted. In addition, the equity or debt securities that we may issue may have rights, preferences or privileges senior to those of our common stock.

Days' sales outstanding was 79 days at December 31, 2015 compared to 83 days at December 31, 2014 and accounts receivable more than 90 days past due increased to 17.6% of gross receivables, from 16.7% at December 31, 2014. We review specific receivables periodically to determine the appropriate reserve for accounts receivable based on the change in days' sales outstanding.

The increase in the inventory reserves resulted primarily from an approximate \$18.6 million write-down related to our shift away from consumer products. The majority of our inventory consists of finished goods, including products, materials and service parts. Inventory also consists of raw materials and spare parts for the in-house assembly and support service products. We outsource the assembly of certain 3D printers; therefore, we generally do not hold most parts for the assembly of these printers in inventory. See Note 4 to the Consolidated Financial Statements.

The changes that make up the other components of working capital not discussed above arose in the ordinary course of business. Differences between the amounts of working capital item changes in the cash flow statement and the balance sheet changes for the corresponding items are primarily the result of foreign currency translation adjustments.

## Cash flow

A summary of the components of cash flows is shown below in Table 16.

Table 16

	Year Ended December 31,		
	2015	2014	2013
(Dollars in thousands)			
Cash provided by (used in) operating activities	\$ (3,128)	\$ 51,111	\$ 25,184
Cash used in investing activities	(120,855)	(375,441)	(173,757)
Cash provided by (used in) financing activities	(2,157)	308,582	298,696

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Effect of exchange rate changes on cash	(3,079)	(5,706)	334
Net increase (decrease) in cash and cash equivalents	\$ (129,219)	\$ (21,454)	\$ 150,457

Cash flow from operations

Table 17 summarizes the components of cash provided by or used in operating activities for 2015, 2014 and 2013.

Table 17

	Year Ended December 31,		
	2015	2014	2013
(Dollars in thousands)			
Net income (loss)	\$ (663,925)	11,946	\$ 44,119
Non-cash charges	696,093	76,262	55,771
Changes in working capital	(35,296)	(37,097)	(74,706)
Net cash provided by (used in) operating activities	\$ (3,128)	51,111	\$ 25,184

For further discussion of net income (loss), see “Net income (loss); net income (loss) available to 3D Systems common stockholders” above.

Non-cash charges primarily consist of goodwill and other intangible asset impairment charges, depreciation and amortization, stock-based compensation and inventory obsolescence and revaluation.

For further discussion of changes in working capital, see “Liquidity and Capital Resources” above. Differences between the amounts of working capital item changes in the cash flow statement and the balance sheet changes for the corresponding items are primarily the result of foreign currency translation adjustments.

#### Cash flow from investing activities

Table 18 summarizes the components of cash used in investing activities for 2015, 2014 and 2013.

Table 18

	Year Ended December 31,		
	2015	2014	2013
(Dollars in thousands)			
Cash paid for acquisitions, net of cash assumed	\$ (91,799)	\$ (345,361)	\$ (162,318)
Purchases of property and equipment	(22,399)	(22,727)	(6,972)
Proceeds from disposition of property and equipment	—	—	1,882
Other investing activities	(5,750)	(6,600)	(4,701)
Additions to license and patent costs	(907)	(753)	(1,648)
Net cash used in investing activities	\$ (120,855)	\$ (375,441)	\$ (173,757)

As discussed below, we completed 25 acquisitions during 2015, 2014 and 2013. The majority of the acquisitions have resulted in the recording of goodwill. This goodwill typically arises because the purchase price for these businesses reflects a number of factors including the future earnings and cash flow potential of these businesses; the multiples to earnings, cash flow and other factors at which similar businesses have been purchased by other acquirers; the competitive nature of the process by which we acquired the business; and the complementary strategic fit and resulting synergies these businesses bring to existing operations. See Note 2, 3 and 7 to the Consolidated Financial Statements.

#### 2015 acquisitions

We acquired 4 businesses in 2015 for cash consideration of \$91.8 million, net of cash acquired, with an additional \$0.7 million of consideration paid in the form of forgiveness of a note. Two of the acquisitions were related to expanding our software solutions, one acquisition was related to expanding our global on-demand parts services and

printer sales footprint, and one acquisition was related to expanding our offering related to the education marketplace opportunity. See Note 3 to the Consolidated Financial Statements.

#### 2014 acquisitions

We acquired 10 businesses in 2014 for cash consideration of \$345.4 million, net of cash acquired, with an additional \$24.6 million of consideration paid in the form of common stock. Five of the acquisitions were related to expanding our global on-demand parts services, two of the acquisitions were related to enhancing our healthcare offerings, two of the acquisitions were related to consumer and retail products and services, and one acquisition was related to our materials business.

#### 2013 acquisitions

We acquired 11 businesses in 2013 for cash consideration of \$162.3 million, net of cash acquired, with an additional \$13.1 million of consideration paid in the form of common stock. Four of the acquisitions were related to enhancing 3D printer penetration through new products and materials, three of the acquisitions were related to expanding and enhancing 3D consumer and retail products and services, two of the acquisitions were related to expanding our global on-demand parts services and two acquisitions were related to expanding our printer sales footprint.

Capital expenditures in 2015, 2014 and 2013 primarily consisted of expenditures for leasehold improvements, including expanding facilities and investing in infrastructure, equipment to support our on-demand parts service and printers associated with new product development efforts.

Other investing activities consist of minority investments of less than 20% made through 3D Ventures, our venture investment initiative, in promising enterprises that we believe will benefit from or be powered by our technologies.



See Notes 2, 3, 5 and 6 to the Consolidated Financial Statements.

#### Cash flow from financing activities

Table 19 summarizes the components of cash provided by financing activities for 2015, 2014 and 2013.

Table 19

	Year Ended December 31,		
	2015	2014	2013
(Dollars in thousands)			
Tax benefits (provision) from share-based payment arrangements	\$ (1,243)	\$ 7,653	\$ 26,038
Proceeds from exercise of restricted stock, net	135	1,896	902
Proceeds from issuance of common stock	—	299,729	272,076
Cash disbursed in lieu of fractional shares related to stock split	—	—	(176)
Restricted cash	—	—	13
Repayment of capital lease obligations	(1,049)	(696)	(157)
Net cash provided (used) by financing activities	\$ (2,157)	\$ 308,582	\$ 298,696

We may issue additional securities in the form of equity offerings from time to time as necessary to provide flexibility to execute our growth strategy. No shares were issued in 2015. We issued approximately 6.0 million shares of common stock, resulting in net proceeds of approximately \$299.7 million in 2014 and approximately 8.6 million shares of common stock, resulting in approximately \$272.1 million in 2013.

#### Off Balance Sheet Arrangements

We did not have any off balance sheet arrangements in existence at December 31, 2015.

#### Contractual Commitments

Our principal commitments at December 31, 2015 consisted of the capital lease on our Rock Hill facility, operating leases, earnouts on acquisitions and purchase obligations, which are discussed in greater detail below. Tables 20 and 21 below summarize our contractual obligations as of December 31, 2015.

Table 20

(Dollars in thousands)	Years Ending December 31,				Total
	2016	2017-2018	2019-2020	Later Years	
Capitalized lease obligations	\$ 1,056	\$ 2,162	\$ 2,088	\$ 8,229	\$ 13,535
Non-cancelable operating leases	10,817	16,589	10,305	11,432	49,143
Purchase obligations	50,663	—	—	—	50,663
Earnouts and deferred payments related to acquisitions	159	9,673	—	—	9,832
Total	\$ 62,695	\$ 28,424	\$ 12,393	\$ 19,661	\$ 123,173

## Debt and lease obligations

### Debt

In November 2011, we issued \$152.0 million of 5.50% senior convertible notes due December 2016. The notes were issued with an effective yield of 5.96% based upon an original issue discount at 98.0%. The net proceeds from the issuance of these notes, after deducting original issue discount and capitalized issuance costs of \$6.6 million, amounted to \$145.4 million. The net proceeds of the notes were used to fund the acquisition of Z Corp and Vidar and for general corporate purposes.

During the third quarter of 2014, the remaining \$12.5 million of outstanding notes were converted, reflecting a loss of \$1.8 million for the year ended December 31, 2014, compared to a loss of \$11.3 million for the year ended December 31, 2013. As of December 31, 2015, there is no outstanding balance for the notes.

In October 2014, we entered into a \$150.0 million five-year revolving, unsecured credit facility with PNC Bank, as Administrative Agent, and certain other lenders. The agreement comprises a revolving loan facility that provides for advances in the initial aggregate principal amount of up to \$150.0 million. Subject to certain terms and conditions contained in the agreement, the Company may, at its option and subject to customary conditions, request an increase in the aggregate principal amount available under the credit facility by an additional \$75.0 million. As of December 31, 2015 and 2014, there was no outstanding balance on the credit facility. Based on current financial covenant limitations at December 31, 2015, availability on the Credit Facility would be approximately \$150.0 million. Future results may positively or negatively impact availability. See Note 11 to the Financial Statements.

### Leases

Our capitalized lease obligations include lease agreements that we entered into during 2006 with respect to our Rock Hill, SC facility, in addition to other lease agreements assumed through acquisitions. In accordance with ASC 840, "Leases," we are considered an owner of the properties, therefore, we have recorded the amounts shown below in Table 21 as building in our consolidated balance sheet with a corresponding capitalized lease obligation in the liabilities section of the consolidated balance sheet. See Note 12 to the Consolidated Financial Statements.

Our outstanding capitalized lease obligations at December 31, 2015 and December 31, 2014 were as follows:

Table 21

(Dollars in thousands)	2015	2014
Capitalized lease obligations:		
Current portion of capitalized lease obligations	\$ 529	\$ 529
Capitalized lease obligations, long-term portion	8,187	8,905
Total capitalized lease obligations	\$ 8,716	\$ 9,434

The decrease in total capitalized lease obligations is primarily due to the normal scheduled timing of payments.

We lease certain other facilities under non-cancelable operating leases expiring through 2024. The leases are generally on a net-rent basis, under which we pay taxes, maintenance and insurance. Rental expense for the years ended December 31, 2015, 2014 and 2013 was \$14.0 million, \$10.4 million and \$6.9 million, respectively.

#### Other contractual commitments

The Company has supply commitments for printer assemblies that total \$50.7 million and \$56.6 million at December 31, 2015 and 2014, respectively.

Certain of our acquisition purchase agreements contain earnout and deferred purchase payment provisions under which the sellers of the acquired businesses can earn additional amounts. The total amount of liabilities recorded for these earnouts and deferred payments is \$9.8 million at December 31, 2015 compared to \$9.2 million at December 31, 2014. See Notes 3 and 22 to the Consolidated Financial Statements for details of acquisitions and related commitments.

The minority interest shareholders of a certain subsidiary have the right to require us to acquire their ownership interest under certain circumstances pursuant to a contractual arrangement, and we have a similar call option under the same contractual terms. The amount of consideration under the put and call rights is not a fixed amount, but rather is dependent upon various valuation formulas and on future events, such as revenue and gross margin performance of the subsidiary through the date of exercise, as described in Note 22 to the Financial Statements. Management estimates, assuming that the subsidiary owned by us at December 31, 2015, performs over the relevant future periods at their forecasted earnings levels, that these rights, if exercised, could require us, in future periods, to pay a maximum of approximately \$8.9 million to the owners of such rights to acquire such ownership interests in the relevant subsidiary. This amount has been recorded as redeemable noncontrolling interests on the balance sheet at December 31, 2015 and December 31, 2014.

#### Indemnification

In the normal course of business we periodically enter into agreements to indemnify customers or suppliers against claims of intellectual property infringement made by third parties arising from the use of our products. Historically, costs related to these indemnification provisions have not been significant. We are unable to estimate the maximum potential impact of these indemnification provisions on our future results of operations.

To the extent permitted under Delaware law, we indemnify our directors and officers for certain events or occurrences while the director or officer is, or was, serving at our request in such capacity, subject to limited exceptions. The maximum potential amount of future payments we could be required to make under these indemnification obligations is unlimited; however, we have directors' and officers' insurance coverage that may enable us to recover future amounts paid, subject to a deductible and to the policy limits.

#### Financial instruments

We conduct business in various countries using both the functional currencies of those countries and other currencies to effect cross border transactions. As a result, we are subject to the risk that fluctuations in foreign exchange rates between the dates that those transactions are entered into and their respective settlement dates will result in a foreign exchange gain or loss. When practicable, we endeavor to match assets and liabilities in the same currency on our balance sheet and those of our subsidiaries in order to reduce these risks. We also, when we consider it to be appropriate, enter into foreign currency contracts to hedge exposures arising from those transactions. There were no foreign exchange contracts at December 31, 2015 or 2014.

We do not hedge for trading or speculative purposes, and our foreign currency contracts are generally short-term in nature, typically maturing in 90 days or less. We have elected not to prepare and maintain the documentation to qualify for hedge accounting treatment under ASC 815, "Derivatives and Hedging," and therefore, we recognize all

gains and losses (realized or unrealized) in interest and other expense, net in our Consolidated Statements of Operations and Other Comprehensive Income (Loss).

Changes in the fair value of derivatives are recorded in interest and other expense, net, in our Consolidated Statements of Operations and Other Comprehensive Income (Loss). Depending on their fair value at the end of the reporting period, derivatives are recorded either in prepaid and other current assets or in accrued liabilities in our Consolidated Balance Sheets.

See Note 10 to the Consolidated Financial Statements.

#### Critical Accounting Policies and Significant Estimates

The discussion and analysis of our results of operations and financial condition set forth in this Form 10-K is based on our Consolidated Financial Statements, which have been prepared in accordance with U.S. generally accepted accounting principles. The preparation of these financial statements requires us to make critical accounting estimates that directly impact our Consolidated Financial Statements and related disclosures.

Critical accounting estimates are estimates that meet two criteria:

- The estimates require that we make assumptions about matters that are highly uncertain at the time the estimates are made; and
- There exist different estimates that could reasonably be used in the current period, or changes in the estimates used are reasonably likely to occur from period to period, both of which would have a material impact on our results of operations or financial condition.

On an ongoing basis, we evaluate our estimates, including those related to stock-based compensation, revenue recognition, the allowance for doubtful accounts, income taxes, inventories, pensions, goodwill and other intangible and long-lived assets and contingencies. We base our estimates and assumptions on historical experience and on various other assumptions that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

The following paragraphs discuss the items that we believe are the critical accounting policies most affected by significant management estimates and judgments. Management has discussed and periodically reviews these critical accounting policies, the basis for their underlying assumptions and estimates and the nature of our related disclosures herein with the Audit Committee of the Board of Directors.

#### Revenue recognition

Net revenue is derived primarily from the sale of products and services. The following revenue recognition policies define the manner in which we account for sales transactions.

We recognize revenue when persuasive evidence of a sale arrangement exists, delivery has occurred or services are rendered, the sales price or fee is fixed or determinable and collectability is reasonably assured. Revenue generally is recognized net of allowances for returns and any taxes collected from customers and subsequently remitted to governmental authorities. We sell our products through our direct sales force and through authorized resellers. We recognize revenue on sales to reseller partners at the time of sale when the partner has economic substance apart from us, and we have completed our obligations related to the sale.

We enter into sales arrangements that may provide for multiple deliverables to a customer. Sales of printers may include ancillary equipment, print materials, warranties on the equipment, training and installation. We identify all

goods and/or services that are to be delivered separately under a sales arrangement and allocate revenue to each deliverable based on either vendor-specific objective evidence (“VSOE”) or if VSOE is not determinable then we use best estimated selling price (“BESP”) of each deliverable. We establish VSOE of selling price using the price charged for a deliverable when sold separately. The objective of BESP is to determine the price at which we would transact a sale if the deliverable was sold regularly on a stand-alone basis. We consider multiple factors including, but not limited to, market conditions, geographies, competitive landscape, and entity-specific factors such as internal costs, gross margin objectives and pricing practices when estimating BESP. Consideration in a multiple element arrangement is then allocated to the elements on a relative sales value basis using either VSOE or BESP for all the elements. 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.

#### Hardware

In general, revenues are separated between printers and other products, print materials, training services, maintenance services and installation services. The allocated revenue for each deliverable is then recognized based on relative fair values of the components of the sale, consistent within the scope of Financial Accounting Standards Board (“FASB”) ASC 605 Revenue Recognition.

Under our standard terms and conditions of sale, title and risk of loss transfers to the customer at the time product is shipped to the customer and revenue is recognized accordingly, unless customer acceptance is uncertain or significant obligations remain. We defer the estimated revenue associated with post-sale obligations that are not essential to the functionality of the delivered items, and recognize revenue in the future as the conditions for revenue recognition are met.



## Software

We also market and sell software tools that enable our customers to capture and customize content using our printers, as well as reverse engineering and inspection software. The software does not require significant modification or customization. We apply the guidance in ASC 985-605, Software-Revenue Recognition (“ASC 985”) in recognizing revenue when software is more than incidental to the product or service as a whole based on fair value using vendor-specific objective evidence. Revenue from perpetual software licenses is recognized either upon delivery of the product or delivery of a key code which allows the customer to access the software. In instances where software access is provided for a trial period, revenue is not recognized until the customer has purchased the software at the expiration of the trial period. We use the residual method to allocate revenue to software licenses at the inception of the license term when VSOE of fair value for all undelivered elements, such as maintenance, exists and all other revenue recognition criteria have been satisfied. In instances in which customers purchase post sale support, it is considered a separate element from the software and is deferred at the time of sale and subsequently amortized in future periods.

We also sell equipment with embedded software to our customers. The embedded software is not sold separately, it is not a significant focus of the marketing effort and we do not provide post-contract customer support specific to the software or incur significant costs that are within the scope of ASC 985. 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 ASC 985 is not applicable. Sales of these products are recognized in accordance with ASC 605-25, “Multiple-Element Arrangements.”

## Services

Printers and certain other products include a warranty under which we provide maintenance for periods up to one year, as well as training, installation and non-contract maintenance services. We defer this portion of the revenue at the time of sale based on the relative fair value of these services. Deferred revenue is recognized ratably according to the term of the warranty. Costs associated with our obligations during the warranty period are expensed as incurred. After the initial warranty period, we offer these customers optional maintenance contracts. Deferred maintenance revenue is recognized ratably, on a straight-line basis, over the period of the contract, and costs associated with these contracts are recognized as incurred. Revenue from training, installation and non-contract maintenance services is recognized at the time of performance.

On-demand parts service sales and healthcare services are included within services revenue and revenue is recognized upon shipment or delivery of the parts, based on the terms of the sales arrangement.

## Terms of sale

Shipping and handling costs billed to customers for equipment sales and sales of print materials are included in product revenue in the consolidated statements of operations and other comprehensive income (loss). Costs we incur associated with shipping and handling are included in product cost of sales in the consolidated statements of operations and other comprehensive income (loss).

Credit is extended, and creditworthiness is determined, based on an evaluation of each customer's financial condition. New customers are generally required to complete a credit application and provide references and bank information to facilitate an analysis of creditworthiness. Customers with a favorable profile may receive credit terms that differ from our general credit terms. Creditworthiness is considered, among other things, in evaluating our relationship with customers with past due balances.

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 printer sales, we may, depending upon the circumstances, require significant deposits prior to shipment and may retain a security interest in a system sold until fully paid. 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. For maintenance services, we either bill customers on a time-and-materials basis or sell customers service agreements that are recorded as deferred revenue and provide for payment in advance on either an annual or other periodic basis.

#### Allowance for doubtful accounts

In evaluating the collectability of our accounts receivable, we assess a number of factors, including specific customers' abilities to meet their financial obligations to us, the length of time receivables are past due and historical collection experience. Based on these assessments, we may record a reserve for specific customers, as well as a general reserve and allowance for returns and discounts. If circumstances related to specific customers change, or economic conditions deteriorate such that our past collection experience is no longer relevant, our estimate of the recoverability of our accounts receivable could be further reduced from the levels provided for in the Consolidated Financial Statements.

We evaluate specific accounts for which we believe a customer may have an inability to meet their financial obligations (for example, aging over 90 days past due or bankruptcy). In these cases, we use our judgment, based on available facts and circumstances, and record a specific reserve for that customer to reduce the receivable to an amount we expect to collect. These specific reserves are re-evaluated and adjusted as additional information is received that impacts the amount reserved.

Further, a reserve based on historical experience is established for all customers, as well as an allowance for returns and discounts, to supplement our specific account-level assessment.

Our bad debt expense was \$3.8 million, \$8.7 million and \$5.0 million for the years ended December 31, 2015, 2014 and 2013.

We believe that our allowance for doubtful accounts is a critical accounting estimate because it is susceptible to change and dependent upon events that may or may not occur and because the impact of recognizing additional allowances for doubtful accounts may be material to the assets reported on our balance sheet and in our results of operations. See "Liquidity and Capital Resources" above.

#### Income taxes

We and our domestic subsidiaries file a consolidated U.S. federal income tax return. Our non-U.S. subsidiaries file income tax returns in their respective local jurisdictions. We provide for income taxes on those portions of our foreign subsidiaries' accumulated earnings (deficit) that we believe are not reinvested indefinitely in their businesses.

We account for income taxes under the asset and liability method. Deferred income tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and tax benefit carryforwards. Deferred income tax liabilities and assets at the end of each period are determined using enacted tax rates.

Under the provisions of ASC 740, "Income Taxes," we establish a valuation allowance for those jurisdictions in which the expiration date of tax benefit carryforwards or projected taxable earnings leads us to conclude that it is "more likely than not" that a deferred tax asset will not be realized. The evaluation process includes the consideration of all available evidence regarding historical results and future projections including the estimated timing of reversals of existing taxable temporary differences and potential tax planning strategies. Once a valuation allowance is established, it is maintained until a change in factual circumstances gives rise to sufficient income of the appropriate character and timing that will allow a partial or full utilization of the deferred tax asset.

Based upon our recent results of operations and its expected profitability in the future, we have concluded that it is more likely than not that our deferred tax assets will not be realized in certain jurisdictions, including the US and certain foreign jurisdictions, and as such, we recorded a \$107.3 million valuation allowance against our deferred tax assets. See Notes 2 and 20 to the Consolidated Financial Statements.

We believe that our estimate of deferred income tax assets and our maintenance of a valuation allowance against such assets are critical accounting estimates because they are subject to, among other things, an estimate of future taxable income in the U.S. and in other non-U.S. tax jurisdictions, which are susceptible to change and dependent upon events that may or may not occur, and because the impact of our valuation allowance may be material to the assets reported on our balance sheet and in our results of operations.

The determination of our income tax provision is complex because we have operations in numerous tax jurisdictions outside the U.S. that are subject to certain risks that ordinarily would not be expected in the U.S. Tax regimes in certain jurisdictions are subject to significant changes, which may be applied on a retroactive basis. If this were to occur, our tax expense could be materially different than the amounts reported.

We periodically estimate the probable tax obligations using historical experience in tax jurisdictions and our informed judgment. There are inherent uncertainties related to the interpretation of tax regulations in the jurisdictions in which we transact business. The judgments and estimates made at a point in time may change based on the outcome of tax audits, as well as changes to, or further interpretations of, regulations. Income tax expense is adjusted in the period in which these events occur, and these adjustments are included in our Consolidated Statements of Operations and Other Comprehensive Income (Loss). If such changes take place, there is a risk that our effective tax rate may increase or decrease in any period.

## Inventories

Inventories are stated at the lower of cost or net realizable value, cost being determined predominantly on the first-in, first-out method. Reserves for inventories are provided based on historical experience and current product demand. We evaluate the adequacy of these reserves quarterly. Our determination of the allowance for inventory reserves is subject to change because it is based on management's current estimates of required reserves and potential adjustments.

We believe that the allowance for inventory obsolescence is a critical accounting estimate because it is susceptible to change and dependent upon events that may or may not occur and because the impact of recognizing additional obsolescence reserves may be material to the assets reported on our balance sheet and in our results of operations.

See Note 4 to the Consolidated Financial Statements.

## Goodwill

Goodwill reflects the excess of the consideration transferred plus the fair value of any non-controlling interest in the acquiree at the acquisition date over the fair values of the identifiable net assets acquired. Goodwill is not amortized but rather is tested for impairment annually, or whenever events or circumstances present an indication of impairment. Goodwill is an asset representing the future economic benefits arising from other assets acquired in a business combination that are not individually identified and separately recognized. The primary items that generate goodwill include the value of the synergies between the acquired companies and us and the acquired assembled workforce, neither of which qualifies for recognition as an intangible asset.

The annual impairment testing required by ASC 350, "Intangibles – Goodwill and Other" requires us to use judgment and could require us to write down the carrying value of our goodwill in future periods. We allocate goodwill to our identifiable geographic reporting units, the Americas, EMEA and APAC regions, which are tested for impairment

using a two-step process. The first step requires comparing the fair value of each reporting unit with the carrying amount, including goodwill. If that fair value exceeds the carrying amount, the second step of the process is not required to be performed, and no impairment charge is required to be recorded. If that fair value does not exceed that carrying amount, we must perform the second step, which requires an allocation of the fair value of the reporting unit to all assets and liabilities of that unit as if the reporting unit had been acquired in a purchase business combination and the fair value of the reporting unit was the purchase price. The goodwill resulting from that purchase price allocation is then compared to the carrying amount with any excess recorded as an impairment charge.

The evaluation of goodwill impairment requires us to make assumptions about future cash flows of the reporting unit being evaluated that include, among others, growth in revenues, margins realized, level of operating expenses and cost of capital. These assumptions require significant judgment and actual results may differ from assumed and estimated amounts.

Goodwill set forth on the Consolidated Balance Sheet as of December 31, 2015 arose from acquisitions carried out from 2009 to 2015 and in years prior to December 31, 2007. Goodwill arising from acquisitions prior to 2007 was allocated to geographic reporting units based on the percentage of SLS printers then installed by geographic area. Goodwill arising from acquisitions in 2009 to 2015 was allocated to geographic reporting units based on geographic dispersion of the acquired companies' sales or capitalization at the time of their acquisition.

We conducted our annual impairment testing in the fourth quarter of 2015. The results of the first step of our annual impairment testing indicated the carrying amount of goodwill assigned to the Americas and EMEA reporting units exceeded fair value and that the carrying amount of goodwill assigned to APAC did not exceed fair value. Based on these results, management completed the second step of annual impairment testing for the Americas and EMEA reporting units. Management determined that the fair value associated with goodwill assigned to the Americas was zero, resulting in a non-tax deductible impairment charge of \$382.3 million. Management determined that the carrying amount of the goodwill assigned to the EMEA reporting unit exceeded fair value by approximately 29%, resulting in a non-tax deductible impairment charge of \$61.4 million. See Notes 2 and 7 to our Consolidated Financial Statements.

When evaluating the fair value of geographic reporting units, we use a discounted cash flow model, which incorporates judgement and the use of estimates by management. Management bases its fair value estimates on assumptions that we believe are reasonable, but are uncertain and subject to changes in market conditions. Within these assumptions, management considered market conditions, the company's market capitalization over sustained periods, the evolving 3D printing industry and near-term demand outlook, changes in forecasts and timing for developing products and applications. Key assumptions used to determine the estimated fair value include: (a) expected cash flow for the ten-year period following the testing date (including market share, sales volumes and prices, costs to produce and estimated capital needs); (b) an estimated terminal value using terminal year growth rates ranging from 4.9% to 5.3%, determined based on the expected growth prospects of the reporting units; and (c) discount rates ranging from 12.75% to 13.5%, based on management's best estimate of the after-tax weighted average cost of capital.

We will continue to monitor our reporting units in an effort to determine whether events and circumstances warrant further interim impairment testing. We could be required to write off or write down additional amounts in the future in the event of deterioration in our future performance, sustained slower growth or other circumstances.

There was no goodwill impairment for the years ended December 31, 2014 or 2013.

#### Other Intangible Assets

Intangible assets other than goodwill primarily represent acquired intangible assets including licenses, patent costs, acquired technology, internally developed technology, customer relationships, non-compete agreements, trade names and trademarks. Intangible assets with finite lives are amortized using the straight-line method over their estimated useful life, which is determined by identifying the period over which most of the cash flows are expected to be generated.

For intangibles with finite lives, we review the carrying amounts for potential impairment when events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Examples of such a change in circumstances include a significant decrease in selling price, a significant adverse change in the extent or manner in which an asset is being used, or a significant adverse change in the legal or business climate. In evaluating recoverability, we group assets and liabilities at the lowest level such that the identifiable cash flows relating to the group are largely independent of the cash flows of other assets and liabilities. We then compare the carrying amounts of the assets or asset groups with the related estimated undiscounted future cash flows. In the event impairment exists, an impairment charge is recorded as the amount by which the carrying amount of the asset or asset group exceeds the fair value. Fair value is determined by reference to estimated selling values of assets in similar condition or by using a discounted cash flow model. In addition, the remaining amortization period for the impaired asset would be reassessed and, if necessary, revised. During the fourth quarter of 2015 we recorded non-cash impairment charges of \$93.5 million as a result of our other intangible assets impairment testing.

Intangible assets with indefinite lives are not amortized but rather tested for impairment annually, or whenever events or circumstances present an indication of impairment. We apply ASC 350, which permits us to make a qualitative assessment of whether the indefinite-lived intangible asset is impaired, or opt to bypass the qualitative assessment and proceed directly to determine the indefinite-lived intangible asset's fair value. If we determine, based on the qualitative tests, that it is not more likely than not that the indefinite-lived intangible asset is impaired, no further action is required. Otherwise, we are required to perform the quantitative impairment test by comparing the fair value of the indefinite-life intangible asset to the indefinite-lived intangible asset carrying amount. In the event impairment exists, an impairment charge is recorded as the amount by which the carrying amount of the asset or asset group exceeds the fair value. No impairment charges for intangible assets with indefinite lives were recorded for the year ended December 31, 2015.

See Notes 2 and 6 to the Consolidated Financial Statements.

#### Stock-based compensation

ASC 718, "Compensation – Stock Compensation," ("ASC 718") requires the recognition of the fair value of stock-based compensation. Under the fair value recognition provisions of ASC 718, stock-based compensation is estimated at the grant date based on the fair value of the awards expected to vest and recognized as expense ratably over the requisite service period of the award. See Note 14 to the Consolidated Financial Statements.



## Contingencies

We account for contingencies in accordance with ASC 450, "Contingencies" ("ASC 450"). ASC 450 requires that we record an estimated loss from a loss contingency when information available prior to issuance of our financial statements indicates that it is probable that an asset has been impaired or a liability has been incurred at the date of the financial statements and the amount of the loss can be reasonably estimated. Accounting for contingencies such as legal matters requires us to use our judgment. See Note 22 to the Consolidated Financial Statements.

## Recent Accounting Pronouncements

See Note 2 to the Consolidated Financial Statements included in this report for recently issued accounting standards, including the expected dates of adoption and expected impact to the Consolidated Financial Statements upon adoption.

## Item 7A. Quantitative and Qualitative Disclosures about Market Risk

We are exposed to market risk from fluctuations in interest rates, foreign currency exchange rates, and commodity prices, 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 our cash and cash equivalents and revolving credit facility. We seek to minimize the risk to our cash and cash equivalents by investing cash in excess of our operating needs in short-term, high-quality instruments issued by highly creditworthy financial institutions, corporations or governments. With the amount of cash and cash equivalents and revolving credit facility that we maintained at December 31, 2015, a hypothetical interest rate change of 1 percentage point, or 100 basis points, would have a less than \$0.1 million effect on our financial position and results of operations.

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, 2015 and 2014, we had no such financial

instruments outstanding.

#### Foreign exchange rates

We transact business globally and are subject to risks associated with fluctuating foreign exchange rates. Our revenue is generated primarily from the operations of our foreign sales subsidiaries in their respective countries and surrounding geographic areas and the operations of our research and production subsidiary in Switzerland, and is denominated in each subsidiary's local functional currency although certain sales are denominated in other currencies, rather than the local functional currency. These subsidiaries incur most of their expenses (other than intercompany expenses) in their local functional currencies. These currencies include Australian Dollars, Brazilian Real, British Pounds, Chinese Yuan, Euros, Indian Rupee, Israeli Shekel, Japanese Yen, Mexican Peso, South Korean Won, Swiss Francs and Uruguayan Peso.

The geographic areas outside the U.S. in which we operate are generally not considered to be highly inflationary. Nonetheless, these foreign operations are sensitive to fluctuations in currency exchange rates arising from, among other things, certain intercompany transactions that are generally denominated in U.S. dollars rather than in their respective functional currencies. Our operating results, as well as our assets and liabilities, are also subject to the effects of foreign currency translation when the operating results, assets and liabilities of our foreign subsidiaries are translated into U.S. dollars in our Consolidated Financial Statements.

We and our subsidiaries conduct business in various countries using both the functional currencies of those countries and other currencies to effect cross border transactions. As a result, we and our subsidiaries are subject to the risk that fluctuations in foreign exchange rates between the dates that those transactions are entered into and their respective settlement dates will result in a foreign exchange gain or loss. When practicable, we endeavor to match assets and liabilities in the same currency on our U.S. balance sheet and those of our subsidiaries in order to reduce these risks. We also, when we consider it appropriate, enter into foreign currency contracts to hedge exposures arising from those transactions.

We do not hedge for trading or speculative purposes, and our foreign currency contracts are generally short-term in nature, typically maturing in 90 days or less. We have elected not to prepare and maintain the documentation to qualify for hedge accounting treatment under ASC 815, "Derivatives and Hedging," and therefore, we recognize all gains and losses (realized or unrealized) in interest and other expense, net in our Consolidated Statements of Operations and Comprehensive Income (Loss).

As noted above, we may use derivative financial instruments, including foreign exchange forward contracts and foreign currency options, to fix or limit our exposure to currency fluctuations. We do not hedge our foreign currency exposures in a manner that would entirely eliminate the effects of changes in foreign exchange rates on our consolidated net income or loss.

At December 31, 2015, a hypothetical change of 10% in foreign currency exchange rates would cause approximately a \$32.7 million change in revenue in our Consolidated Statements of Operations and Comprehensive Income (Loss) assuming all other variables were held constant.

#### Commodity prices

We use various raw materials and energy products in conjunction with our printer assembly and print materials blending processes. Generally, we acquire such components at market prices and do not use financial instruments to hedge commodity prices. As a result, we are exposed to market risks related to changes in commodity prices of these components. At December 31, 2015, a hypothetical 10% change in commodity prices for raw materials would cause an approximate \$1.1 million change to cost of sales in our Consolidated Statements of Operations and Comprehensive Income (Loss).

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

Our Consolidated Financial Statements and the related notes, together with the Report of Independent Registered Public Accounting Firm thereon, are set forth below beginning on page F-1 and are incorporated herein by reference.

#### Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

Not applicable.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

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”)), are controls and procedures that are designed to provide reasonable assurance that information required to be disclosed in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, in a manner to allow timely decisions regarding required disclosures.

As of December 31, 2015, we carried out an evaluation, under the supervision and with the participation of our management, including our Interim Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Exchange Act pursuant to Rules 13a-15(e) and 15d-15(e) under the Exchange Act. These controls and procedures were designed to provide reasonable assurance that information required to be disclosed in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms and that such information is accumulated and communicated to management, including our Interim Chief Executive Officer and Chief Financial Officer, in a manner to allow timely decisions regarding required disclosures. Based on this evaluation, including an evaluation of the rules referred to above in this Item 9A, management has concluded that our disclosure controls and procedures were effective as of December 31, 2015 to provide reasonable assurance that information required to be disclosed in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms and that such information is accumulated and communicated to management, including our Interim Chief Executive Officer and Chief Financial Officer, in a manner to allow timely decisions regarding required disclosures.

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

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. Internal control over financial reporting is a process designed under the supervision of our principal executive and principal financial officers to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America.

Our internal control over financial reporting is supported by written policies and procedures that pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets, provide reasonable assurance that transactions are recorded as necessary to permit the preparation of financial statements in accordance with accounting principles generally accepted in the United States of America and that our receipts and expenditures are being made and recorded only in accordance with authorizations of our management and provide reasonable assurance regarding the prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on our financial statements.

In connection with the preparation of this Form 10-K, with the participation of our Interim Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2015 based on the criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013 (“COSO”). Our assessment included an evaluation of the design of our internal control over financial reporting and testing of the operational effectiveness of our internal control over financial reporting. Based on this evaluation, our management has concluded that our internal control over financial reporting was effective as of December 31, 2015.

Because of its inherent limitations, a system of internal control over financial reporting can provide only reasonable assurance and may not prevent or detect misstatements. In addition, projections of any evaluation of effectiveness to future periods are subject to the risks that controls may become inadequate because of changes in conditions and that the degree of compliance with the policies or procedures may deteriorate.

BDO USA, LLP, the independent registered public accounting firm who audited our Consolidated Financial Statements included in this Form 10-K, has issued a report on our internal control over financial reporting, which is included in Item 8 of this Form 10-K.

## Changes in Internal Controls over Financial Reporting

There were no changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during the quarter ended December 31, 2015 that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

The information required in response to this Item will be set forth in our Proxy Statement for our 2016 Annual Meeting of Stockholders under the captions “Election of Directors,” “Corporate Governance Matters,” “Section 16(a) Beneficial Ownership Reporting Compliance,” “Corporate Governance Matters—Code of Conduct and Code of Ethics,” “Corporate Governance Matters—Corporate Governance and Nominating Committee,” and “Corporate Governance Matters—Audit Committee.” Such information is incorporated herein by reference.

Item 11. Executive Compensation

The information in response to this Item will be set forth in our Proxy Statement for our 2016 Annual Meeting of Stockholders under the captions “Director Compensation,” “Executive Compensation,” “Corporate Governance Matters—Compensation Committee,” and “Executive Compensation—Compensation Committee Report.” Such information is incorporated herein by reference.

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

Except as set forth below, the information required in response to this Item will be set forth in our Proxy Statement for our 2016 Annual Meeting of Stockholders under the caption “Security Ownership of Certain Beneficial Owners and Management.” Such information is incorporated herein by reference.

## Equity Compensation Plans

The following table summarizes information about the equity securities authorized for issuance under our compensation plans as of December 31, 2015. For a description of these plans, please see Note 14 to the Consolidated Financial Statements.

(Dollars in thousands)	Number of securities to be issued upon exercise of outstanding stock options, warrants and rights	Weighted average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans
Plan Category			
Equity compensation plans approved by stockholders	—	\$ —	6,078
Equity compensation plans not approved by stockholders	—	—	—
Total	—	\$ —	6,078

## Item 13. Certain Relationships and Related Transactions and Director Independence

The information required in response to this Item will be set forth in our Proxy Statement for our 2016 Annual Meeting of Stockholders under the captions “Corporate Governance Matters—Director Independence” and “Corporate Governance Matters – Related Party Transaction Policies and Procedures.” Such information is incorporated herein by reference.

## Item 14. Principal Accounting Fees and Services

The information in response to this Item will be set forth in our Proxy Statement for our 2016 Annual Meeting of Stockholders under the caption “Fees of Independent Registered Public Accounting Firm.” Such information is incorporated herein by reference.

#### PART IV

#### Item 15. Exhibits, Financial Statement Schedules

(a)(3) Exhibits

The following exhibits are included as part of this filing and incorporated herein by this reference:

- 3.1 Certificate of Incorporation of Registrant. (Incorporated by reference to Exhibit 3.1 to Form 8-B filed on August 16, 1993, and the amendment thereto, filed on Form 8-B/A on February 4, 1994.)
- 3.2 Amendment to Certificate of Incorporation filed on May 23, 1995. (Incorporated by reference to Exhibit 3.2 to Registrant’s Registration Statement on Form S-2/A, filed on May 25, 1995.)
- 3.3 Certificate of Designation of Rights, Preferences and Privileges of Preferred Stock. (Incorporated by reference to Exhibit 2 to Registrant’s Registration Statement on Form 8-A filed on January 8, 1996.)
- 3.4 Certificate of Designation of the Series B Convertible Preferred Stock, filed with the Secretary of State of Delaware on May 2, 2003. (Incorporated by reference to Exhibit 3.1 to Registrant’s Current Report on Form 8-K, filed on May 7, 2003.)
- 3.5 Certificate of Elimination of Series A Preferred Stock filed with the Secretary of State of Delaware on March 4, 2004. (Incorporated by reference to Exhibit 3.6 of Registrant’s Annual Report on Form 10-K for the year ended December 31, 2003, filed on March 15, 2004.)



- 3.6 Certificate of Elimination of Series B Preferred Stock filed with the Secretary of State of Delaware on June 9, 2006. (Incorporated by reference to Exhibit 3.1 of Registrant's Current Report on Form 8 K, filed on June 9, 2006.)
- 3.7 Certificate of Amendment of Certificate of Incorporation filed with Secretary of State of Delaware on May 19, 2004. (Incorporated by reference to Exhibit 3.1 of the Registrant's Quarterly Report on Form 10 Q for the quarterly period ended June 30, 2004, filed on August 5, 2004.)
- 3.8 Certificate of Amendment of Certificate of Incorporation filed with Secretary of State of Delaware on May 17, 2005. (Incorporated by reference to Exhibit 3.1 of the Registrant's Quarterly Report on Form 10 Q for the quarterly period ended June 30, 2005, filed on August 1, 2005.)
- 3.9 Certificate of Amendment of Certificate of Incorporation filed with the Secretary of State of Delaware on October 7, 2011. (Incorporated by reference to Exhibit 3.1 to Form 8-K filed on October 7, 2011.)
- 3.10 Certificate of Designations, Preferences and Rights of Series A Preferred Stock, filed with the Secretary of State of Delaware on December 9, 2008. (Incorporated by reference to Exhibit 3.1 of Registrant's Current Report on Form 8-K, filed on December 9, 2008.)
- 3.11 Certificate of Elimination of Series A Preferred Stock filed with the Secretary of State of Delaware on November 14, 2011. (Incorporated by reference to Exhibit 3.1 to Form 8-K filed on November 15, 2011.)
- 3.12 Certificate of Amendment of Certificate of Incorporation filed with the Secretary of State of Delaware on May 21, 2013. (Incorporated by reference to Exhibit 3.1 of the Registrant's Current Report on Form 8-K filed on May 22, 2013.)
- 3.13 Amended and Restated By Laws. (Incorporated by reference to Exhibit 3.1 of the Registrant's Current Report on Form 8 K, filed on February 17, 2015.)
- 4.1\* Amended and Restated 2004 Incentive Stock Plan of 3D Systems Corporation (Incorporated by reference to Exhibit 4.1 to the Registrant's Amendment No.1 to Registration Statement on Form S-8, filed May 20, 2009.)
- 4.2\* Amended and Restated 2004 Incentive Stock Plan of 3D Systems Corporation (Incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K, filed February 5, 2015.)
- 4.3\* Form of Restricted Stock Purchase Agreement for Employees under the 2004 Incentive Stock Plan. (Incorporated by reference to Exhibit 4.2 to the Registrant's Registration Statement on Form S 8, filed on May 19, 2004.)
- 4.4\* Form of Restricted Stock Purchase Agreement for Officers under the 2004 Incentive Stock Plan. (Incorporated by reference to Exhibit 4.3 to the Registrant's Registration Statement on Form S 8, filed on May 19, 2004.)
- 4.5\* Form of Restricted Stock Purchase Agreement under the Amended and Restated 2004 Incentive Stock Plan. (Incorporated by reference to Exhibit 10.3 to the Registrant's Current Report on Form 8-K, filed on February 5, 2015.)
- 4.6\* Form of Restricted Stock Unit Purchase Agreement under the Amended and Restated 2004 Incentive Stock Plan. (Incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K, filed on February 5, 2015.)

- 4.7\* Restricted Stock Plan for Non Employee Directors of 3D Systems Corporation. (Incorporated by reference to Exhibit 4.4 to the Registrant's Registration Statement on Form S 8, filed on May 19, 2004.)
- 4.8\* Amendment No. 1 to Restricted Stock Plan for Non-Employee Directors. (Incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10 Q for the quarterly period ended June 30, 2005, filed on August 1, 2005.)
- 4.9\* Form of Restricted Stock Purchase Agreement for Non Employee Directors. (Incorporated by reference to Exhibit 4.5 to the Registrant's Registration Statement on Form S 8, filed on May 19, 2004.)
- 4.10 Indenture, dated as of November 22, 2011, by and between 3D Systems Corporation and Wells Fargo Bank, National Association, as Trustee (incorporated by reference to Exhibit 4.1 to Form 8-K filed on November 22, 2011.)

- 4.11 Specimen Common Stock Certificate. (Incorporated by reference to Exhibit 4.1 to the Registrant's Registration Statement on Form S-3 (No. 333-182065) filed on June 12, 2012.)
- 4.12\* Appendix A to the Amended and Restated 2004 Incentive Stock Plan of 3D Systems Corporation effective March 11, 2015. (Incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2015, filed on May 6, 2015.)
- 4.13\* 2015 Incentive Plan of 3D Systems Corporation (Incorporated by reference to Exhibit 4.1 to the Registrant's Registration Statement on Form S-8, filed May 19, 2015.)
- 4.14\* Appendix A to the 2015 Incentive Plan of 3D Systems Corporation effective May 19, 2015. (Incorporated by reference to Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2015, filed on August 6, 2015.)
- 4.15\* Form of Restricted Stock Award Agreement. (Incorporated by reference to Exhibit 4.2 to the Registrant's Registration Statement on Form S-8, filed on May 19, 2015.)
- 4.16\* Form of Restricted Stock Unit Award Agreement. (Incorporated by reference to Exhibit 4.3 to the Registrant's Registration Statement on Form S-8, filed on May 19, 2015.)
- 4.17\* 2015 Incentive Plan of 3D Systems Corporation as Amended and Restated on February 1, 2016
- 10.1 Patent License Agreement dated December 16, 1998 by and between 3D Systems, Inc., NTT Data CMET, Inc. and NTT Data Corporation. (Incorporated by reference to Exhibit 10.56 to Registrant's Annual Report on Form 10 K for the year ended December 31, 1998, filed on March 31, 1999.)
- 10.2 Lease Agreement dated February 8, 2006 between the Registrant and KDC-Carolina Investments 3, LP. (Incorporated by reference to Exhibit 99.1 to Registrant's Current Report on Form 8 K, filed on February 10, 2006.)
- 10.3 First Amendment to Lease Agreement dated August 7, 2006 between the Registrant and KDC-Carolina Investments 3, LP. (Incorporated by reference to Exhibit 10.1 of Registrant's Current Report on Form 8 K, filed on August 14, 2006.)
- 10.4 Second Amendment to Lease Agreement effective as of October 6, 2006 to Lease Agreement dated February 8, 2006 between 3D Systems Corporation and KDC-Carolina Investments 3, LP. (Incorporated by reference to Exhibit 10.1 of Registrant's Current Report on Form 8 K, filed on October 10, 2006.)
- 10.5 Third Amendment to Lease Agreement effective as of December 18, 2006 to Lease Agreement dated February 8, 2006 between 3D Systems Corporation and KDC-Carolina Investments 3, LP. (Incorporated by reference to Exhibit 10.1 of Registrant's Current Report on Form 8 K, filed on December 20, 2006.)
- 10.6 Fourth Amendment to Lease Agreement effective as of February 26, 2007 to Lease Agreement dated February 8, 2006 between 3D Systems Corporation and KDC-Carolina Investments 3, LP. (Incorporated by reference to Exhibit 10.1 of Registrant's Current Report on Form 8 K, filed on March 1, 2007.)
- 10.7 Fifth Amendment to Lease Agreement effective as of March 17, 2011 to Lease Agreement dated February 8, 2006 between 3D Systems Corporation and KDC-Carolina Investments 3, LP. (Incorporated by reference to Exhibit 10.1 to Form 8-K filed on March 21, 2011.)

- 10.8\* Employment Letter Agreement, effective September 19, 2003, by and between Registrant and Abraham N. Reichental. (Incorporated by reference to Exhibit 10.1 to Registrant's Current Report on Form 8-K, filed on September 22, 2003.)
- 10.9\* Agreement, dated December 17, 2003, by and between Registrant and Abraham N. Reichental. (Incorporated by reference to Exhibit 10.43 to Registrant's Amendment No. 1 to Registration Statement on Form S-1, filed on January 21, 2004.)

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- 10.10\* First Amendment to Employment Agreement, dated July 24, 2007, by and between Registrant and Abraham N. Reichental. (Incorporated by reference to Exhibit 10.1 to Registrant's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2007, filed on August 6, 2007.)
- 10.11\* Charles W. Hull consulting arrangement (Incorporated by reference to Exhibit 10.1 of the Registrant's Quarterly Report on Form 10-Q filed on July 29, 2010.)
- 10.12\* Kevin P. McAlea severance arrangement (Incorporated by reference to Exhibit 10.2 of the Registrant's Quarterly Report on Form 10-Q filed on July 29, 2010.)
- 10.13\* Transition Agreement, dated March 28, 2014, by and between 3D Systems Corporation and Damon Gregoire. (Incorporated by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K, filed on March 31, 2014.)
- 10.14 Credit Agreement, dated as of October 10, 2014, among 3D Systems Corporation, the Guarantors party thereto, PNC Bank, National Association, as Administrative Agent, PNC Capital Markets LLC, as Sole Lead Arranger and Sole Bookrunner, HSBC Bank USA, N.A., as Syndication Agent, and the other lender's party thereto. (Incorporated by reference to Exhibit 10.1 of Registrant's Current Report on Form 8-K filed on October 14, 2014.)
- 10.15\* Severance and Release Agreement between 3D Systems Corporation and Theodore A. Hull dated May 14, 2015. (Incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2015, filed on August 6, 2015.)
- 10.16\* Executive Severance Agreement between 3D Systems Corporation and David R. Styka dated May 14, 2015. (Incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2015, filed on August 6, 2015.)
- 10.17 Consulting Agreement between the Corporation and ECG Ventures, Inc. dated January 25, 2016.
- 21.1 Subsidiaries of Registrant.
- 23.1 Consent of Independent Registered Public Accounting Firm dated March 14, 2016.
- 31.1 Certification of Principal Executive Officer Pursuant to Section 302 of the Sarbanes Oxley Act of 2002, dated March 14, 2016.
- 31.2 Certification of Principal Financial Officer Pursuant to Section 302 of the Sarbanes Oxley Act of 2002, dated March 14, 2016.
- 32.1 Certification of Principal Executive Officer pursuant to Section 906 of the Sarbanes Oxley Act of 2002, dated March 14, 2016.
- 32.2 Certification of Principal Financial Officer pursuant to Section 906 of the Sarbanes Oxley Act of 2002, dated March 14, 2016.
- 101.INS XBRL Instance Document
- 101.SCH XBRL Taxonomy Extension Scheme Document

101.CAL XBRL Taxonomy Extension Calculation Linkbase Document

101.DEF XBRL Taxonomy Extension Definition Linkbase Document

101.LAB XBRL Taxonomy Extension Label Linkbase Document

101.PRE XBRL Taxonomy Extension Presentation Linkbase Document

\* Management contract or compensatory plan or arrangement

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 our behalf by the undersigned, thereunto duly authorized.

3D Systems Corporation

By: /s/ ANDREW M. JOHNSON  
 Andrew M. Johnson  
 Interim President and Chief Executive Officer, Chief Legal Officer and Secretary  
 Date: March 14, 2016

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

Signature	Title	Date
/s/ ANDREW M. JOHNSON Andrew M. Johnson	Interim President and Chief Executive Officer, Chief Legal Officer and Secretary  (principal executive officer)	March 14, 2016
/s/ DAVID R. STYKA David R. Styka	Executive Vice President and Chief Financial Officer  (principal financial and accounting officer)	March 14, 2016
/s/ CHARLES W. HULL Charles W. Hull	Executive Vice President, Chief Technology Officer and Director	March 14, 2016
/s/ G. WALTER LOEWENBAUM, II G. Walter Loewenbaum, II	Chairman of the Board of Directors	March 14, 2016
/s/ JIM D. KEVER Jim D. Kever	Director	March 14, 2016
/s/ KEVIN S. MOORE	Director	March 14, 2016





3D Systems Corporation

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and Consolidated Financial Statement Schedule

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and Board of Directors

3D Systems Corporation

Rock Hill, South Carolina

We have audited 3D Systems Corporation and its subsidiaries' (the "Company") internal control over financial reporting as of December 31, 2015, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission in (the COSO criteria). 3D Systems Corporation's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying "Item 9A, Management's Report on Internal Control over Financial Reporting." Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit 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 effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become

inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, 3D Systems Corporation did maintain, in all material respects, effective internal control over financial reporting as of December 31, 2015, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of 3D Systems Corporation and its subsidiaries as of December 31, 2015 and 2014, and the related consolidated statements of operations and comprehensive income (loss), stockholders' equity and cash flows for each of the three years in the period ended December 31, 2015 and our report dated March 14, 2016 expressed an unqualified opinion thereon.

/s/ BDO USA, LLP

BDO USA, LLP

Charlotte, North Carolina

March 14, 2016

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and Board of Directors of  
3D Systems Corporation  
Rock Hill, South Carolina

We have audited the accompanying consolidated balance sheets of 3D Systems Corporation and its subsidiaries (the “Company”) as of December 31, 2015 and 2014 and the related consolidated statements of operations and comprehensive income (loss), stockholders’ equity and cash flows for each of the three years in the period ended December 31, 2015. These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on these 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 financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, 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 3D Systems Corporation and its subsidiaries as of December 31, 2015 and 2014 and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2015 in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company’s internal control over financial reporting as of December 31, 2015, based on criteria established in Internal Control—Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission in (COSO) and our report dated March 14, 2016 expressed an unqualified opinion thereon.

/s/ BDO USA, LLP

BDO USA, LLP

Charlotte, North Carolina

March 14, 2016

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3D Systems Corporation  
 Consolidated Balance Sheets  
 as of December 31, 2015 and 2014

(in thousands, except par value)	December 31, 2015	December 31, 2014
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 155,643	\$ 284,862
Accounts receivable, net of reserves — \$14,139 (2015) and \$10,300 (2014)	157,406	168,441
Inventories, net of reserves — \$28,225 (2015) and \$6,675 (2014)	105,877	96,645
Prepaid expenses and other current assets	13,541	15,769
Current deferred income tax asset	—	14,973
Total current assets	432,467	580,690
Property and equipment, net	85,995	81,881
Intangible assets, net	157,466	251,561
Goodwill	187,875	589,537
Long term deferred income tax asset	3,216	816
Other assets, net	26,256	25,825
Total assets	\$ 893,275	\$ 1,530,310
<b>LIABILITIES AND EQUITY</b>		
Current liabilities:		
Current portion of debt and capitalized lease obligations	\$ 529	\$ 684
Accounts payable	46,869	64,378
Accrued and other liabilities	54,699	43,554
Customer deposits	8,229	6,946
Deferred revenue	35,145	32,264
Total current liabilities	145,471	147,826
Long term portion of capitalized lease obligations	8,187	8,905
Long term deferred income tax liability	17,944	30,679
Other liabilities	58,155	39,903
Total liabilities	229,757	227,313
Redeemable noncontrolling interests	8,872	8,872
Stockholders' equity:		
Common stock, \$0.001 par value, authorized 220,000 shares; issued 113,115 (2015) and 112,233 (2014)	113	112
Additional paid-in capital	1,279,738	1,245,462
Treasury stock, at cost: 892 shares (2015) and 709 shares (2014)	(1,026)	(374)

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Accumulated earnings (deficit)	(583,368)	72,124
Accumulated other comprehensive loss	(39,548)	(24,406)
Total 3D Systems Corporation stockholders' equity	655,909	1,292,918
Noncontrolling interests	(1,263)	1,207
Total stockholders' equity	654,646	1,294,125
Total liabilities, redeemable noncontrolling interests and stockholders' equity	\$ 893,275	\$ 1,530,310

See accompanying notes to Consolidated Financial Statements.

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3D Systems Corporation  
Consolidated Statements of Operations and Comprehensive Income (Loss)  
Years Ended December 31, 2015, 2014 and 2013

(in thousands, except per share amounts)	2015	2014	2013
Revenue:			
Products	\$ 408,119	\$ 442,198	\$ 356,032
Services	258,044	211,454	157,368
Total revenue	666,163	653,652	513,400
Cost of sales:			
Products	243,639	223,991	159,628
Services	130,715	112,227	86,178
Total cost of sales	374,354	336,218	245,806
Gross profit	291,809	317,434	267,594
Operating expenses:			
Selling, general and administrative	303,784	215,724	143,244
Research and development	92,770	75,395	43,489
Impairment of goodwill and other intangible assets	537,179	—	—
Total operating expenses	933,733	291,119	186,733
Income (loss) from operations	(641,924)	26,315	80,861
Interest and other expense, net	13,029	8,928	16,855
Income (loss) before income taxes	(654,953)	17,387	64,006
Provision for income taxes	8,972	5,441	19,887
Net income (loss)	(663,925)	11,946	44,119
Less net income (loss) attributable to noncontrolling interests	(8,433)	309	12
Net income (loss) attributable to 3D Systems Corporation	\$ (655,492)	\$ 11,637	\$ 44,107
Net income (loss) per share available to 3D Systems Corporation common stockholders — basic and diluted	\$ (5.85)	\$ 0.11	\$ 0.45
Other comprehensive income (loss):			
Pension adjustments, net of taxes	\$ 338	\$ (1,135)	\$ (168)
Liquidation of non-US entity	—	—	173
Foreign currency gain (loss)	(16,300)	(29,183)	1,968
Total other comprehensive income (loss)	(15,962)	(30,318)	1,973
Less foreign currency translation gain (loss) attributable to noncontrolling interests	(820)	(123)	50
Other comprehensive income (loss) attributable to 3D Systems Corporation	(15,142)	(30,195)	1,923
Comprehensive income (loss)	(679,887)	(18,372)	46,092
Less comprehensive income (loss) attributable to noncontrolling interests	(9,253)	186	62



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Comprehensive income (loss) attributable to 3D Systems Corporation	\$ (670,634)	\$ (18,558)	\$ 46,030
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See accompanying notes to Consolidated Financial Statements.

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3D Systems Corporation  
 Consolidated Statements of Stockholders' Equity  
 Years Ended December 31, 2015, 2014 and 2013

(In thousands, except par value)	Common Stock			Treasury Stock		Accumulated Earnings (Deficit)	Accumulated Other Comprehensive Income (Loss)	Total 3D Systems Corporation Stockholders' Equity	Equity Attributable to Noncontrol Interests	Total Stockholders' Equity
	Shares	Par Value \$0.001	Additional Paid In Capital	Shares	Amount					
Balance at December 31, 2012	59,855	\$ 60	\$ 460,237	355	\$ (240)	\$ 16,410	\$ 3,866	\$ 480,333	\$ —	\$ 480,333
Tax benefits from share-based payment arrangements	—	—	26,038	—	—	—	—	26,038	—	26,038
Issuance (repurchase) of restricted stock, net	1,001	1	947	68	(46)	—	—	902	—	902
Issuance of stock for 5.50% senior convertible notes, net of taxes	4,675	5	80,749	—	—	—	—	80,754	—	80,754
Common stock split	30,867	31	(177)	177	—	(30)	—	(176)	—	(176)
Issuance of stock for acquisitions	293	—	13,131	—	—	—	—	13,131	—	13,131
Issuance of stock for equity raise	7,112	7	272,069	—	—	—	—	272,076	—	272,076
Stock-based compensation expense	15	—	13,558	—	—	—	—	13,558	—	13,558
Net income	—	—	—	—	—	44,107	—	44,107	12	44,119

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Noncontrolling interest for business combinations	—	—	—	—	—	—	—	—	1,084	1
Pension adjustment	—	—	—	—	—	—	(168)	(168)	—	(
Liquidation of non-US entity	—	—	—	—	—	—	173	173	—	1
Foreign currency translation adjustment	—	—	—	—	—	—	1,918	1,918	50	1
Balance at December 31, 2013	103,818	\$ 104	\$ 866,552	600	\$ (286)	\$ 60,487	\$ 5,789	\$ 932,646	\$ 1,146	\$ 9
Tax benefits from share-based payment arrangements	—	—	7,653	—	—	—	—	7,653	—	7
Issuance (repurchase) of restricted stock, net	1,152	1	1,983	109	(88)	—	—	1,896	—	1
Issuance of stock for 5.50% senior convertible notes, net of taxes	877	1	12,133	—	—	—	—	12,134	—	1
Issuance of stock for acquisitions	436	—	24,625	—	—	—	—	24,625	—	2
Issuance of stock for equity raise	5,950	6	299,723	—	—	—	—	299,729	—	2
Stock-based compensation expense	—	—	32,793	—	—	—	—	32,793	—	3
Net income	—	—	—	—	—	11,637	—	11,637	309	1
Noncontrolling interests for business combinations	—	—	—	—	—	—	—	—	(125)	(
Pension adjustment	—	—	—	—	—	—	(1,135)	(1,135)	—	(
Foreign currency translation adjustment	—	—	—	—	—	—	(29,060)	(29,060)	(123)	(
	112,233	\$ 112	\$ 1,245,462	709	\$ (374)	\$ 72,124	\$ (24,406)	\$ 1,292,918	\$ 1,207	\$ 1

Balance at December 31, 2014											
Tax provision from share-based payment arrangements	—	—	(1,243)	—	—	—	—	(1,243)	—	(	
Issuance (repurchase) of restricted stock, net	882	1	786	183	(652)	—	—	135	—	1	
Stock-based compensation expense	—	—	34,733	—	—	—	—	34,733	—	3	
Net income (loss)	—	—	—	—	—	(655,492)	—	(655,492)	(8,433)	(	
Noncontrolling interests for business combinations	—	—	—	—	—	—	—	—	6,783	6	
Pension adjustment	—	—	—	—	—	—	338	338	—	3	
Foreign currency translation adjustment	—	—	—	—	—	—	(15,480)	(15,480)	(820)	(	
Balance at December 31, 2015	113,115	\$ 113	\$ 1,279,738	892	\$ (1,026)	\$ (583,368)	\$ (39,548)(a)	\$ 655,909	\$ (1,263)	\$ 6	

(a) Accumulated other comprehensive loss of \$39,548 consists of a cumulative unrealized loss on pension plan of \$1,873 and a foreign currency translation loss of \$37,675.

See accompanying notes to Consolidated Financial Statements.

3D Systems Corporation  
Consolidated Statements of Cash Flows  
Years Ended December 31, 2015, 2014 and 2013

(in thousands)	2015	2014	2013
Cash flows from operating activities:			
Net income (loss)	\$ (663,925)	\$ 11,946	\$ 44,119
Adjustments to reconcile net income (loss) to net cash provided (used) by operating activities:			
Benefit of deferred income taxes	(2,875)	(24,555)	(9,892)
Depreciation and amortization	83,069	55,188	30,444
Provision for litigation award	11,282	—	—
Impairment of goodwill, other intangible assets and investments	544,611	—	—
Non-cash interest on convertible notes	—	224	974
Provision for bad debts	3,766	8,699	4,961
Provision for inventory obsolescence and revaluation	21,550	2,334	4,341
Stock-based compensation	34,733	32,793	13,558
(Gain) loss on the disposition of property and equipment	(43)	(227)	1,128
Deferred interest income	—	—	(1,018)
Loss on conversion of convertible debt	—	1,806	11,275
Changes in operating accounts:			
Accounts receivable	20,890	(55,977)	(43,684)
Inventories	(31,241)	(33,088)	(35,234)
Prepaid expenses and other current assets	2,197	(9,235)	(1,780)
Accounts payable	(18,904)	23,482	7,620
Accrued and other liabilities	624	15,406	(6,495)
Customer deposits	1,466	1,921	1,904
Deferred revenue	(576)	8,686	7,526
Other operating assets and liabilities	(9,752)	11,708	(4,563)
Net cash provided by (used in) operating activities	(3,128)	51,111	25,184
Cash flows from investing activities:			
Purchases of property and equipment	(22,399)	(22,727)	(6,972)
Additions to license and patent costs	(907)	(753)	(1,648)
Proceeds from disposition of property and equipment	—	—	1,882
Cash paid for acquisitions, net of cash assumed	(91,799)	(345,361)	(162,318)
Other investing activities	(5,750)	(6,600)	(4,701)
Net cash used in investing activities	(120,855)	(375,441)	(173,757)
Cash flows from financing activities:			
Tax benefits (provision) from share-based payment arrangements	(1,243)	7,653	26,038
Proceeds from issuance of common stock	—	299,729	272,076
Proceeds from exercise of restricted stock, net	135	1,896	902
Cash disbursed in lieu of fractional shares related to stock split	—	—	(176)
Restricted cash	—	—	13
Repayment of capital lease obligations	(1,049)	(696)	(157)

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Net cash provided by (used in) financing activities	(2,157)	308,582	298,696
Effect of exchange rate changes on cash	(3,079)	(5,706)	334
Net increase (decrease) in cash and cash equivalents	(129,219)	(21,454)	150,457
Cash and cash equivalents at the beginning of the period	284,862	306,316	155,859
Cash and cash equivalents at the end of the period	\$ 155,643	\$ 284,862	\$ 306,316
Cash interest payments	\$ 707	\$ 888	\$ 1,584
Cash income tax payments	12,512	15,602	5,642
Transfer of equipment from inventory to property and equipment, net (a)	9,902	5,891	4,886
Transfer of equipment to inventory from property and equipment, net (b)	2,764	944	612
Stock issued for acquisitions of businesses	—	24,625	13,131
Notes redeemed for shares of common stock	—	12,134	80,754

(a) Inventory is transferred from inventory to property and equipment at cost when the Company requires additional machines for training or demonstration or for placement into on-demand parts services locations.

(b) In general, an asset is transferred from property and equipment, net into inventory at its net book value when the Company has identified a potential sale for a used machine.

See accompanying notes to Consolidated Financial Statements.

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## Note 1 Basis of Presentation

The Consolidated Financial Statements include the accounts of 3D Systems Corporation and all majority-owned subsidiaries and entities in which a controlling interest is maintained (the “Company”).

A non-controlling interest in a subsidiary is considered an ownership interest in a majority-owned subsidiary that is not attributable to the parent. The Company includes noncontrolling interest as a component of total equity in the Consolidated Balance Sheets and the net income attributable to noncontrolling interests are presented as an adjustment from net income used to arrive at net income attributable to 3D Systems Corporation in the consolidated statements of operations and comprehensive income (loss).

All significant intercompany accounts and transactions have been eliminated in consolidation. The Company’s annual reporting period is the calendar year.

The Consolidated Financial Statements have been prepared in accordance with accounting principles generally accepted in the United States (“GAAP”). Certain prior period amounts have been reclassified to conform to the current year presentation.

All amounts presented in the accompanying footnotes are presented in thousands, except for per share information.

## Note 2 Significant Accounting Policies

### Use of Estimates

The Consolidated Financial Statements have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires the Company to make estimates and judgments that affect the reported amounts of assets, liabilities, revenue and expenses and related disclosure of contingent assets and liabilities. On an ongoing basis, the Company evaluates its estimates, including, among others, those related to the allowance for doubtful accounts, income taxes, inventory reserves, goodwill, other intangible assets, contingencies and revenue recognition. The Company bases its estimates on historical experience and on various other assumptions that are believed to be reasonable, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates.

## Revenue Recognition

Net revenue is derived primarily from the sale of products and services. The following revenue recognition policies define the manner in which the Company accounts for sales transactions.

The Company recognizes revenue when persuasive evidence of a sale arrangement exists, delivery has occurred or services are rendered, the sales price or fee is fixed or determinable and collectability is reasonably assured. Revenue generally is recognized net of allowances for returns and any taxes collected from customers and subsequently remitted to governmental authorities. The Company sells its products through its direct sales force and through authorized reseller partners. The Company recognizes revenue on sales to reseller partners at the time of sale when the partner has economic substance apart from Company, and the Company has completed its obligations related to the sale.

The Company enters into sales arrangements that may provide for multiple deliverables to a customer. Sales of printers may include ancillary equipment, print materials, a warranty on the equipment, training and installation. The Company identifies all goods and/or services that are to be delivered separately under a sales arrangement and allocates revenue to each deliverable based on either vendor-specific objective evidence (“VSOE”) or if VSOE is not determinable then the Company uses best estimated selling price (“BESP”) of each deliverable. The Company established VSOE of selling price using the price charged for a deliverable when sold separately. The objective of BESP is to determine the price at which the Company would transact a sale if the deliverable was sold regularly on a stand-alone basis. The Company considers multiple factors including, but not limited to, market conditions, geographies, competitive landscapes, and entity-specific factors such as internal costs, gross margin objectives and pricing practices when estimating BESP. Consideration in a multiple element arrangement is then allocated to the elements on a relative sales value basis using either VSOE or BESP for all the elements. 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.



## Hardware

In general, revenues are separated between printers and other products, print materials, training services, maintenance services and installation services. The allocated revenue for each deliverable is then recognized based on relative fair values of the components of the sale, consistent within the scope of Financial Accounting Standards Board (“FASB”) Accounting Standards Codification (“ASC”) 605 Revenue Recognition.

Under the Company’s standard terms and conditions of sale, title and risk of loss transfer to the customer at the time product is shipped to the customer and revenue is recognized accordingly, unless customer acceptance is uncertain or significant obligations remain. The Company defers the estimated revenue associated with post-sale obligations that are not essential to the functionality of the delivered items, and recognizes revenue in the future as the conditions for revenue recognition are met.

## Software

The Company also markets and sells software tools that enable our customers to capture and customize content using our printers, as well as reverse engineering and inspection software. The software does not require significant modification or customization. The Company applies the guidance in ASC 985-605, Software-Revenue Recognition in recognizing revenue when software is more than incidental to the product or service as a whole based on fair value using vendor-specific objective evidence. Revenue from perpetual software licenses is recognized either upon delivery of the product or delivery of a key code which allows the customer to access the software. In instances where software access is provided for a trial period, revenue is not recognized until the customer has purchased the software at the expiration of the trial period. The Company uses the residual method to allocate revenue to software licenses at the inception of the license term when VSOE of fair value for all undelivered elements, such as maintenance, exists and all other revenue recognition criteria have been satisfied. In instances in which customers purchase post sale support, it is considered a separate element from the software and is deferred at the time of sale and subsequently amortized in future periods.

The Company also sells equipment with embedded software to its customers. The embedded software is not sold separately, it is not a significant focus of the marketing effort and the Company does not provide post-contract customer support specific to the software or incur significant costs that are within the scope of ASC 985. 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 ASC 985 is not applicable. Sales of these products are recognized in accordance with ASC 60-25, “Multiple-Element Arrangements.”

## Services

Printers and certain other products include a warranty under which the Company provides maintenance for periods up to one year, as well as training, installation and non-contract maintenance services. The Company defers this portion of the revenue at the time of sale based on the relative fair value of these services. Deferred revenue is recognized ratably according to the term of the warranty. Costs associated with our obligations during the warranty period are expensed as incurred. After the initial warranty period, the Company offers these customers optional maintenance contracts. Deferred maintenance revenue is recognized ratably, on a straight-line basis, over the period of the contract, and costs associated with these contracts are recognized as incurred. Revenue from training, installation and non-contract maintenance services is recognized at the time of performance.

On-demand parts and healthcare service sales are included within services revenue and revenue is recognized upon shipment or delivery of the parts, based on the terms of the sales arrangement.

#### Terms of sale

Shipping and handling costs billed to customers for equipment sales and sales of print materials are included in product revenue in the Consolidated Statements of Operations and Other Comprehensive Income (Loss). Costs incurred by the Company associated with shipping and handling are included in product cost of sales in the Consolidated Statements of Operations and Other Comprehensive Income (Loss).

Credit is extended, and creditworthiness is determined, based on an evaluation of each customer's financial condition. New customers are generally required to complete a credit application and provide references and bank information to facilitate an analysis of creditworthiness. Customers with a favorable profile may receive credit terms that differ from the Company's general credit terms. Creditworthiness is considered, among other things, in evaluating the Company's relationship with customers with past due balances.

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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 printer sales, the Company may, depending upon the circumstances, require significant deposits prior to shipment and may retain a security interest in a system sold until fully paid. 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. For maintenance services, the Company either bills customers on a time-and-materials basis or sells customers service agreements that are recorded as deferred revenue and provide for payment in advance on either an annual or other periodic basis.

#### Cash and Cash Equivalents

Investments with original maturities of three months or less at the date of purchase are considered 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 market value because of the short maturity of the instruments. The Company places its cash with highly creditworthy financial institutions, corporations or governments, and believes its risk of loss is limited; however, at times, account balances may exceed international and U.S. federally insured limits.

#### Investments

Investments in non-consolidated affiliates (20-50 percent owned companies and joint ventures) are accounted for using the equity method. Investments through which we are not able to exercise significant influence over the investee and which we do not have readily determinable fair values are accounted for under the cost method.

The Company assesses declines in the fair value of investments to determine whether such declines are other-than-temporary. This assessment is made considering all available evidence, including changes in general market conditions, specific industry and individual company data, the length of time and the extent to which the fair value has been less than cost, the financial condition and the near-term prospects of the entity issuing the security, and the Company's ability and intent to hold the investment until recovery. Other-than-temporary impairments of investments are recorded to interest and other expense, net, on the Company's Consolidated Statements of Operations in the period in which they become impaired.

For the year ended December 31, 2015, the Company recorded impairment charges of \$7,432 related to certain minority investments of less than 20% ownership, for which we do not exercise significant influence. The aggregate carrying amount of all investments accounted for under the cost method totaled \$10,687 and \$11,973 at December 31, 2015 and 2014, respectively, and is included in other assets, net, on the Company's Consolidated Balance Sheets.

#### Allowance for Doubtful Accounts

In evaluating the collectability of accounts receivable, the Company assesses a number of factors, including specific customers' ability to meet their financial obligations to us, the length of time receivables are past due and historical collection experience. Based on these assessments, the Company may record a reserve for specific customers, as well as a general reserve and allowance for returns and discounts. If circumstances related to specific customers change, or economic conditions deteriorate such that the Company's past collection experience is no longer relevant, its estimate of the recoverability of accounts receivable could be further reduced from the levels provided for in the Consolidated Financial Statements.

The Company evaluates specific accounts for which it believes a customer may have an inability to meet their financial obligations (for example, aging over 90 days past due or bankruptcy). In these cases, the Company uses judgment, based on available facts and circumstances, and records a specific reserve for that customer to reduce the receivable to an amount the Company expects to collect. These specific reserves are re-evaluated and adjusted as additional information is received that impacts the amount reserved.

Further, a reserve based on historical experience is established for all customers, as well as an allowance for returns and discounts, to supplement the Company's specific account-level assessment.

#### Inventories

Inventories are stated at the lower of cost or net realizable market value, cost being determined using the first-in, first-out method. Reserves for slow-moving and obsolete inventories are provided based on historical experience and current product demand. The Company evaluates the adequacy of these reserves quarterly.

## Property and Equipment

Property and equipment are carried at cost and depreciated on a straight-line basis over the estimated useful lives of the related assets. Leasehold improvements are amortized on a straight-line basis over the shorter of (i) their estimated useful lives and (ii) the estimated or contractual lives of the leases. Realized gains and losses are recognized upon disposal or retirement of the related assets and are reflected in results of operations. Charges for repairs and maintenance are expensed as incurred.

In accordance with ASC 360, the Company assesses potential impairments of property and equipment when events or changes in circumstances indicate that the carrying amount may not be fully recoverable. If required, an impairment loss is recognized as the difference between the carrying value and the fair value of the assets.

## Goodwill

Goodwill reflects the excess of the consideration transferred plus the fair value of any non-controlling interest in the acquiree at the acquisition date over the fair values of the identifiable net assets acquired. Goodwill is not amortized but rather is tested for impairment annually, or whenever events or circumstances present an indication of impairment. Goodwill is an asset representing the future economic benefits arising from other assets acquired in a business combination that are not individually identified and separately recognized. The primary items that generate goodwill include the value of the synergies between the acquired companies and the Company and the acquired assembled workforce, neither of which qualifies for recognition as an intangible asset.

The annual impairment testing required by ASC 350, “Intangibles – Goodwill and Other” requires the Company to use judgment and could require the Company to write down the carrying value of its goodwill in future periods. The Company allocates goodwill to its identifiable geographic reporting units, the Americas, EMEA and APAC regions, which are tested for impairment using a two-step process. The first step requires comparing the fair value of each reporting unit with the carrying amount, including goodwill. If that fair value exceeds the carrying amount, the second step of the process is not required to be performed, and no impairment charge is required to be recorded. If that fair value does not exceed that carrying amount, the Company must perform the second step, which requires an allocation of the fair value of the reporting unit to all assets and liabilities of that unit as if the reporting unit had been acquired in a purchase business combination and the fair value of the reporting unit was the purchase price. The goodwill resulting from that purchase price allocation is then compared to the carrying amount with any excess recorded as an impairment charge.

The evaluation of goodwill impairment requires the Company to make assumptions about future cash flows of the reporting unit being evaluated that include, among others, growth in revenues, margins realized, level of operating expenses and cost of capital. These assumptions require significant judgement and actual results may differ from

assumed and estimated amounts.

Goodwill set forth on the Consolidated Balance Sheet as of December 31, 2015 arose from acquisitions carried out from 2009 to 2015 and in years prior to December 31, 2007. Goodwill arising from acquisitions prior to 2007 was allocated to geographic reporting units based on the percentage of SLS printers then installed by geographic area. Goodwill arising from acquisitions in 2009 to 2015 was allocated to geographic reporting units based on geographic dispersion of the acquired companies' sales or capitalization at the time of their acquisition.

The Company conducted its annual impairment testing in the fourth quarter of 2015. The results of the Company's first step of annual impairment testing indicated the carrying amount of goodwill assigned to the Americas and EMEA reporting units exceeded fair value and that the carrying amount of goodwill assigned to APAC did not exceed fair value. Based on these results, management completed the second step of annual impairment testing for the Americas and EMEA reporting units. Management determined that the fair value of goodwill assigned to the Americas was zero, resulting in a non-tax deductible impairment charge of \$382,271. Management determined that the carrying amount of the goodwill assigned to EMEA exceeded fair value by approximately 29%, resulting in a non-tax deductible goodwill impairment charge of \$61,388. See Note 7 to our Consolidated Financial Statements.

When evaluating the fair value of geographic reporting units, the Company uses a discounted cash flow model, which incorporates judgement and the use of estimates by management. Management bases its fair value estimates on assumptions that they believe are reasonable, but are uncertain and subject to changes in market conditions. Within these assumptions, management considered market conditions, the Company's market capitalization over sustained periods, the evolving 3D printing industry and near-term demand outlook, changes in forecasts and timing for developing products and applications. Key assumptions used to determine the estimated fair value include: (a) expected cash flow for the ten-year period following the testing date (including market share, sales volumes and prices, costs to produce and estimated capital needs); (b) an estimated terminal value using terminal year growth rates ranging from 4.9% to 5.3%, determined based on the expected growth prospects of the reporting units; and (c) discount rates ranging from 12.75% to 13.5%, based on management's best estimate of the after-tax weighted average cost of capital.

The Company will continue to monitor its reporting units in an effort to determine whether events and circumstances warrant further interim impairment testing. The Company could be required to write off or write down additional amounts in the future in the event of deterioration in future performance, sustained slower growth or other circumstances.

There was no goodwill impairment for the years ended December 31, 2014 or 2013.

#### Other Intangible Assets

Intangible assets other than goodwill primarily represent acquired intangible assets including licenses, patent costs, acquired technology, internally developed technology, customer relationships, non-compete agreements, trade names and trademarks. Intangible assets with finite lives are amortized using the straight-line method over their estimated useful life, which is determined by identifying the period over which most of the cash flows are expected to be generated.

Amortization of license and patent costs is included in cost of sales, research and development expenses and selling, general and administrative expenses, depending upon the nature and use of the technology. Amortization of trade names, customer relationships and non-compete agreements are recorded in selling, general and administrative expenses.

Certain software development and production costs are capitalized when the related product reaches technological feasibility. No Software development costs were capitalized in 2015 or 2014 and \$250 were capitalized in 2013. Capitalized software costs include internally developed software and certain costs that relate to developed software that the Company acquired through acquisition of businesses. Amortization expense related to capitalized software costs amounted to \$1,439 for each year ended December 31, 2015, 2014 and 2013. Net capitalized software costs aggregated \$1,811, \$3,556 and \$5,234 at December 31, 2015, 2014 and 2013, respectively.

For intangibles with finite lives, the Company reviews the carrying amounts for potential impairment when events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Examples of such a change in circumstances include a significant decrease in selling price, a significant adverse change in the extent or manner in which an asset is being used, or a significant adverse change in the legal or business climate. In evaluating recoverability, the Company groups assets and liabilities at the lowest level such that the identifiable cash flows relating to the group are largely independent of the cash flows of other assets and liabilities. The Company then compares the carrying amounts of the assets or asset groups with the related estimated undiscounted future cash flows. In the event impairment exists, an impairment charge is recorded as the amount by which the carrying amount of the asset or asset group exceeds the fair value. Fair value is determined by reference to estimated selling values of assets in similar condition or by using a discounted cash flow model. In addition, the remaining amortization period for the

impaired asset would be reassessed and, if necessary, revised. During the fourth quarter of 2015 the Company recorded non-cash impairment charges of \$93,520 arising from the Company's other intangible assets impairment testing. No impairment charges were recorded by the Company for the years ended December 31, 2014 and 2013.

Intangible assets with indefinite lives are not amortized but rather tested for impairment annually, or whenever events or circumstances present an indication of impairment. The Company applies the FASB guidance, which permits the Company to make a qualitative assessment of whether the indefinite-lived intangible asset is impaired, or opt to bypass the qualitative assessment and proceed directly to determine the indefinite-lived intangible asset's fair value. If the Company determines, based on the qualitative tests, that it is not more likely than not that the indefinite-lived intangible asset is impaired, no further action is required. Otherwise, the Company is required to perform the quantitative impairment test by comparing the fair value of the indefinite-life intangible asset to the indefinite-lived intangible asset carrying amount. In the event impairment exists, an impairment charge is recorded as the amount by which the carrying amount of the asset or asset group exceeds the fair value. No impairment charges for intangible assets with indefinite lives were recorded by the Company for the year ended December 31, 2015, 2014 or 2013. See Note 6 to the Consolidated Financial Statements.

#### Redeemable Noncontrolling Interest

The minority interest shareholders of a certain subsidiary have the right to require the Company to acquire their ownership interest under certain circumstances pursuant to a contractual arrangement and the Company has a similar call option under the same contractual terms. The amount of consideration under the put and call rights is not a fixed amount, but rather is dependent upon various valuation formulas and on future events, such as revenue and gross margin performance of the subsidiary through the date of exercise, etc. as described in Note 22 to the Consolidated Financial Statements.

The Company has recorded the put option as mezzanine equity at their current estimated redemption amount. The Company accrues changes in the redemption amounts over the period from the date of issuance to the earliest redemption date of the put option. For the year ended December 31, 2015, there has been no charge to noncontrolling interests. Changes in the estimated redemption amounts of the put options are adjusted at each reporting period with a corresponding adjustment to equity.



The following table presents changes in Redeemable Noncontrolling Interests:

(in thousands)	2015	2014
Beginning balance	\$ 8,872	\$ —
Changes in redemption value	—	8,550
Currency translation adjustments	—	322
Ending balance	\$ 8,872	\$ 8,872

### Contingencies

The Company follows the provisions of ASC 450, “Contingencies,” which requires that an estimated loss from a loss contingency be accrued by a charge to income if it is both probable that an asset has been impaired or that a liability has been incurred and that the amount of the loss can be reasonably estimated.

### Foreign Currency Translation

The Company transacts business globally and is subject to risks associated with fluctuating foreign exchange rates. 49.0% of the Company’s consolidated revenue is derived from sales outside the U.S. This revenue is generated primarily from sales of subsidiaries operating outside the U.S. in their respective countries and surrounding geographic areas. This revenue is primarily denominated in each subsidiary’s local functional currency, although certain sales are denominated in other currencies. These subsidiaries incur most of their expenses (other than intercompany expenses) in their local functional currencies. These currencies include Australian Dollars, Brazilian Real, British Pounds, Chinese Yuan, Euros, Indian Rupee, Japanese Yen, Swiss Francs, South Korean Won and Israel Shekel.

The geographic areas outside the U.S. in which the Company operates are generally not considered to be highly inflationary. Nonetheless, these foreign operations are sensitive to fluctuations in currency exchange rates arising from, among other things, certain intercompany transactions that are generally denominated in U.S. dollars rather than their respective functional currencies. The Company’s operating results, assets and liabilities are subject to the effect of foreign currency translation when the operating results and the assets and liabilities of the Company’s foreign subsidiaries are translated into U.S. dollars in the Company’s Consolidated Financial Statements. The assets and liabilities of the Company’s foreign subsidiaries are translated from their respective functional currencies into U.S. dollars based on the translation rate in effect at the end of the related reporting period. The operating results of the Company’s foreign subsidiaries are translated to U.S. dollars based on the average conversion rate for the related period. Gains and losses resulting from these conversions are recorded in accumulated other comprehensive income

(loss) in the consolidated balance sheets.

Gains and losses resulting from foreign currency transactions (transactions denominated in a currency other than the functional currency of the Company or a subsidiary) are included in the consolidated statements of operations and other comprehensive income (loss), except for intercompany receivables and payables for which settlement is not planned or anticipated in the foreseeable future, which are included as a component of accumulated other comprehensive income (loss) in the consolidated balance sheets.

#### Derivative Financial Instruments

The Company is exposed to market risk from changes in interest rates and foreign currency exchange rates and commodity prices, 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 does not purchase, hold or sell derivative financial instruments for trading or speculative purposes. The Company has elected not to prepare and maintain the documentation to qualify for hedge accounting treatment under ASC 815, "Derivatives and Hedging," and therefore, all gains and losses (realized or unrealized) related to derivative instruments are recognized in interest and other expense, net in the consolidated statements of operations and comprehensive income (loss) and depending on the fair value at the end of the reporting period, derivatives are recorded either in prepaid and other current assets or in accrued liabilities in the consolidated balance sheets.

The Company and its subsidiaries conduct business in various countries using both their functional currencies and other currencies to effect cross border transactions. As a result, they are subject to the risk that fluctuations in foreign exchange rates between the dates that those transactions are entered into and their respective settlement dates will result in a foreign exchange gain or loss. When practicable, the Company endeavors to match assets and liabilities in the same currency on its U.S. balance sheet and those of its subsidiaries in order to reduce these risks. The Company, when it considers it to be appropriate, enters into foreign currency contracts to hedge the exposures arising from those transactions. See Note 10 to the Consolidated Financial Statements.

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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.

#### Research and Development Costs

Research and development costs are expensed as incurred.

#### Earnings per Share

Basic net income per share is computed by dividing net income available to common stockholders by the weighted average number of shares of common stock outstanding during the period. Diluted net income per share is computed by dividing net income, as adjusted for the assumed issuance of all dilutive shares, by the weighted average number of shares of common stock outstanding plus the number of additional common shares that would have been outstanding if all dilutive common shares issuable upon exercise of outstanding stock options or conversion of convertible securities had been issued. For 2015, 2014 and 2013, common shares related to restricted stock units were excluded from the computation because their effect was anti-dilutive, that is, their inclusion would increase the Company's net income per share or reduce its net loss per share. At December 31, 2013, the average outstanding diluted shares calculation also excluded shares that may have been issued upon conversion of the outstanding senior convertible notes because their inclusion would have been anti-dilutive. All senior convertible notes were converted in 2014. See Note 17 to the Consolidated Financial Statements.

#### Advertising Costs

Advertising costs are expensed as incurred. Advertising costs, including trade shows, were \$15,245, \$8,799 and \$6,010 for the years ended December 31, 2015, 2014 and 2013, respectively. Advertising costs increased primarily as a result of the Company's expanded portfolio of products and services. A wider range of offerings has expanded the forms of marketing and advertising the Company utilizes.

#### Pension costs

The Company sponsors a retirement benefit for one of its non-U.S. subsidiaries in the form of a defined benefit pension plan. Accounting standards require the cost of providing this pension benefit be measured on an actuarial

basis. Actuarial gains and losses resulting from both normal year-to-year changes in valuation assumptions and differences from actual experience are deferred and amortized. The application of these accounting standards requires management to make assumptions and judgements that can significantly affect these measurements. Critical assumptions made by management in performing these actuarial valuations include the selection of the discount rate to determine the present value of the pension obligations that affects the amount of pension expense recorded in any given period. Changes in the discount rate could have a material effect on the Company's reported pension obligations and related pension expense. See Note 15 to the Consolidated Financial Statements.

#### Equity Compensation Plans

The Company maintains stock-based compensation plans that are described more fully in Note 14 to the Consolidated Financial Statements. Under the fair value recognition provisions of ASC 718, "Compensation – Stock Compensation," stock-based compensation is estimated at the grant date based on the fair value of the awards expected to vest and recognized as expense ratably over the requisite service period of the award.

#### Income Taxes

The Company and its domestic subsidiaries file a consolidated U.S. federal income tax return. The Company's non-U.S. subsidiaries file income tax returns in their respective jurisdictions. The Company provides for income taxes on those portions of its foreign subsidiaries' accumulated earnings (deficit) that the Company believes are not reinvested permanently in their business.

Income taxes are accounted for under the asset and liability method. Deferred income tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and tax benefit carryforwards. Deferred income tax liabilities and assets at the end of each period are determined using enacted tax rates.

The Company establishes a valuation allowance for those jurisdictions in which the expiration date of tax benefit carryforwards or projected taxable earnings leads the Company to conclude that it is “more likely than not” that a deferred tax asset will not be realized. The evaluation process includes the consideration of all available evidence regarding historical results and future projections including the estimated timing of reversals of existing taxable temporary differences and potential tax planning strategies. Once a valuation allowance is established, it is maintained until a change in factual circumstances gives rise to sufficient income of the appropriate character and timing that will allow a partial or full utilization of the deferred tax asset.

Based upon the Company’s recent results of operations and its expected profitability in the future, the Company concluded that it is more likely than not that its deferred tax assets will not be realized in certain jurisdictions, including the US and certain foreign jurisdictions, and as such, the Company recorded a valuation allowance against the Company’s deferred tax assets.

The Company applies ASC 740 to determine the impact of an uncertain tax position on the income tax returns. In accordance with ASC 740, this impact must be recognized at the largest amount that is more likely than not to be required to be recognized upon audit by the relevant taxing authority.

The Company includes interest and penalties accrued in the Consolidated Financial Statements as a component of income tax expense.

See Note 20 to the Consolidated Financial Statements.

#### Recent Accounting Pronouncements

#### Accounting Standards Implemented in 2015

In November 2015, the FASB issued Accounting Standards Update No. 2015-17 “Income Taxes: Balance Sheet Classification of Deferred Taxes” (“ASU 2015-17”), which requires all deferred tax assets and liabilities to be classified as non-current on an entity’s balance sheet. This standard is effective for fiscal years beginning after December 15, 2017, with early adoption permitted. ASU 2015-17 may be applied either prospectively, for all deferred tax assets and liabilities, or retrospectively. The Company has elected to early adopt ASU 2015-17, on a prospective basis, as of December 31, 2015. Deferred tax assets and liabilities on the Company’s balance sheet for December 31, 2015 have been classified as entirely non-current; however, the adoption is on a prospective basis and deferred tax assets and liabilities on the Company’s balance sheet as of December 31, 2014 have not been re-classified.

## New Accounting Standards to be Implemented

In April 2015, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update No. 2015-03, “Simplifying the Presentation of Debt Issuance Costs” (“ASU 2015-03”), which changes the presentation of debt issuance costs in financial statements. ASU 2015-03 requires an entity to present such costs in the balance sheet as a direct deduction from the related debt liability rather than as an asset. Amortization of the costs will continue to be reported as interest expense. It is effective for annual reporting periods beginning after December 15, 2016. Early adoption is permitted. The new guidance will be applied retrospectively to each prior period presented. The Company is currently in the process of evaluating the impact of adoption of ASU 2015-03 on its consolidated balance sheets.

In July 2015, the FASB issued Accounting Standards Update No. 2015-11, “Simplifying the Measurement of Inventory” (“ASU 2015-11”). ASU 2015-11 requires an entity to measure inventory at the lower of cost and net realizable value. Net realizable value is the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. Subsequent measurement is unchanged for inventory measured using last-in, first-out (“LIFO”) or the retail inventory method. It is effective for annual reporting periods beginning after December 15, 2016. The amendments should be applied prospectively with earlier application permitted as of the beginning of an interim or annual reporting period. The Company is currently in the process of evaluating the impact of adoption of ASU 2015-11 on its consolidated balance sheets.

In August 2015, the FASB issued Accounting Standards Update No. 2015-14, “Revenue from Contracts with Customers: Deferral of the Effective Date” (“ASU 2015-14”), a revision to Accounting Standards Update No. 2014-09, “Revenue from Contracts with Customers”, which was originally issued on May 28, 2014. For public business entities, certain not-for-profit entities, and certain employee benefit plans, the effective date was for annual reporting periods beginning after December 15, 2016, including interim periods within that reporting period. The effective date for all other entities was for annual reporting periods beginning after December 15, 2017, and interim periods within annual periods beginning after December 15, 2018. ASU 2015-14 will defer these effective dates for all entities by one year. The Company is currently in the process of evaluating the impact of adoption of ASU 2015-14 on its financial statements.

In September 2015, the FASB issued Accounting Standards Update No. 2015-16, “Business Combinations: Simplifying the Accounting for Measurement-Period Adjustments” (“ASU 2015-16”). ASU 2015-16 requires that an acquirer recognize adjustments to provisional amounts that are identified during the measurement period in the reporting period in which the adjustment amounts are determined. The amendments in ASU 2015-16 require that the acquirer record, in the same period’s financial statements, the effect on earnings of changes in depreciation, amortization, or other income effects, if any, as a result of the change to the provisional amounts, calculated as if the accounting had been completed at the acquisition date. ASU 2015-16 is effective for annual reporting periods beginning after December 15, 2015. The Company is currently in the process of evaluating the impact of adoption of ASU 2015-16 on its financial statements.

In February 2016, the FASB issued Accounting Standards Update No. 2016-02, “Leases (Topic 842)” (“ASU 2016-02”). ASU 2016-02 requires lessees to recognize assets and liabilities arising from operating leases on the balance sheet. It is effective for annual reporting periods beginning after December 15, 2018. The amendments should be applied prospectively with earlier application permitted as of the beginning of an interim or annual reporting period. The Company is currently in the process of evaluating the impact of adoption of ASU 2016-02 on its consolidated balance sheets.

No other new accounting pronouncements, issued or effective during 2015 or 2016, have had or are expected to have a significant impact on the Company’s Consolidated Financial Statements.

### Note 3 Acquisitions

#### 2015 Acquisitions

On February 9, 2015, the Company acquired 100% of the outstanding shares and voting rights of Cimatron Ltd. (“Cimatron”), a provider of integrated 3D CAD/CAM software and solutions for manufacturing. The fair value of the consideration paid for this acquisition, net of cash acquired, was \$77,984, all of which was paid in cash. The operations of Cimatron have been integrated into the Company’s products and service revenues. The fair value of the consideration paid for this acquisition was allocated to the assets purchased and liabilities assumed, based on their estimated fair values as of the acquisition date, with any excess recorded as goodwill, and is included in the table below, which summarizes 2015 acquisitions.

On April 2, 2015, the Company acquired 65% of the equity interests in Wuxi Easyway Model Design and Manufacture Co. Ltd. (“Easyway”), a manufacturing service bureau and distributor of 3D printing and scanning products in China. The fair value of the consideration paid for this acquisition, net of cash acquired, was \$11,265, all

of which was paid in cash. Under the terms of the agreement, the Company has an option to acquire the remainder of the equity interests in Easyway between the third and fifth anniversary of the closing. The operations of Easyway have been integrated into the Company's products and service revenues. The fair value of the consideration paid for this acquisition was allocated to the assets purchased and liabilities assumed, based on their estimated fair values as of the acquisition date, with any excess recorded as goodwill, and is included in the table below, which summarizes 2015 acquisitions.

On June 16, 2015, the Company acquired certain assets of STEAMtrax, LLC ("STEAMtrax"), a curricula provider. The fair value of the consideration paid for this acquisition, net of cash acquired, was \$2,550, all of which was paid in cash. The operations of STEAMtrax have been integrated into the Company and revenue will be included in products and services. The fair value of the consideration paid for this acquisition was allocated to the assets purchased and liabilities assumed, based on their estimated fair values as of the acquisition date, with any excess recorded as goodwill, and is included in the table below, which summarizes 2015 acquisitions.

On June 17, 2015, the Company acquired certain assets of NOQUO INC. ("Noquo"), a software provider. The fair value of the consideration paid for this acquisition, net of cash acquired, was \$651, which was paid with cash and the cancellation of a note. The operations of Noquo have been integrated into the Company and revenue will be included in services. The fair value of the consideration paid for this acquisition was allocated to the assets purchased and liabilities assumed, based on their estimated fair values as of the acquisition date, with any excess recorded as goodwill, and is included in the table below, which summarizes 2015 acquisitions.

For all acquisitions made in 2015, factors considered by the Company in determination of goodwill include synergies, vertical integration and strategic fit for the Company. The acquisitions completed during the year are not material relative to the Company's assets or operating results; therefore, no proforma financial information is provided.

Goodwill related to asset acquisitions will be deductible for tax purposes. Goodwill related to equity acquisitions will not be recognized as a tax-deductible asset. If the target in an equity acquisition was deducting goodwill from a previous asset acquisition, that tax benefit would continue. For discussion of goodwill impairment, see Note 2 to the Consolidated Financial Statements.



The Company's purchase price allocations for the acquired companies are preliminary and subject to revision as more detailed analyses are completed and additional information about fair value of assets and liabilities becomes available. The amounts related to the acquisitions of these businesses were allocated to the assets acquired and the liabilities assumed and included in the Company's consolidated balance sheet at December 31, 2015 as follows:

(in thousands)	2015
Fixed assets	\$ 1,505
Other intangible assets, net	57,066
Goodwill	44,772
Other assets, net of cash acquired	22,449
Liabilities	(33,342)
Net assets acquired	\$ 92,450

#### 2014 Acquisitions

On February 18, 2014, the Company acquired the assets of Digital Playspace, Inc., an online platform that combines home design, gaming, and community sharing to deliver a 3D create-and-make experience for children, families and adults. The fair value of the consideration paid for this acquisition, net of cash acquired, was \$4,000, of which \$2,000 was paid in cash and \$2,000 was paid in shares of the Company's stock. These shares were issued in a private transaction exempt from registration under the Securities Act of 1933. The operations of Digital Playspace, Inc. have been integrated into the Company's service revenues. The fair value of the consideration paid for this acquisition was allocated to the assets purchased and liabilities assumed, based on their estimated fair values as of the acquisition date, with any excess recorded as goodwill, and is included in the table below, which summarizes 2014 acquisitions.

On April 2, 2014, the Company acquired 100% of the outstanding shares and voting rights of Medical Modeling Inc. Medical Modeling Inc. is a provider of 3D printing-centric personalized surgical treatments and patient specific medical devices, including virtual surgical planning, personalized medical devices and clinical transfer tools. The fair value of the consideration paid for this acquisition, net of cash acquired, was \$69,026 of which \$51,526 was paid in cash and \$17,500 was paid in shares of the Company's stock. These shares were issued in a private transaction exempt from registration under the Securities Act of 1933. The operations of Medical Modeling Inc. have been integrated into the Company's service revenues. The fair value of the consideration paid for this acquisition was allocated to the assets purchased and liabilities assumed, based on their estimated fair values as of the acquisition date, with any excess recorded as goodwill, and is included in the table below, which summarizes 2014 acquisitions.

On August 6, 2014, the Company acquired certain assets of Bordner and Associates, Inc. d/b/a Laser Reproductions ("Laser Reproductions"). Laser Reproductions is a provider of advanced manufacturing, tooling and rapid prototyping solutions. The fair value of the consideration paid for this acquisition, net of cash acquired, was \$17,450, of which

\$13,075 was paid in cash and \$4,375 was paid in shares of the Company's common stock. These shares were issued in a private transaction exempt from registration under the Securities Act of 1933. The operations of Laser Reproductions have been integrated into the Company's service revenues. The fair value of the consideration paid for this acquisition was allocated to the assets purchased and liabilities assumed, based on their estimated fair values as of the acquisition date, with any excess recorded as goodwill, and is included in the table below, which summarizes 2014 acquisitions.

On August 13, 2014, the Company acquired certain assets of sister companies American Precision Machining, L.L.C. ("APM") and American Precision Prototyping, LLC ("APP"). APM and APP are providers of precision machining and manufacturing services and 3D printing services. The fair value of the consideration paid for these acquisitions, net of cash acquired, was \$14,089, all of which was paid in cash. The operations of APM and APP have been integrated into the Company's service revenues. The fair value of the consideration paid for these acquisitions was allocated to the assets purchased and liabilities assumed, based on their estimated fair values as of the acquisition date, with any excess recorded as goodwill, and is included in the table below, which summarizes 2014 acquisitions.

On August 28, 2014, the Company acquired 100% of the outstanding shares and voting rights of Simbionix USA Corporation ("Simbionix"). Simbionix is a provider of patient-specific surgical simulation solutions. The fair value of the consideration paid for this acquisition, net of cash acquired, was \$121,562, all of which was paid in cash. The operations of Simbionix have been integrated into the Company's products and service revenues. The fair value of the consideration paid for this acquisition was allocated to the assets purchased and liabilities assumed, based on their estimated fair values as of the acquisition date, with any excess recorded as goodwill, and is included in the table below, which summarizes 2014 acquisitions.

On September 3, 2014, the Company acquired 100% of the outstanding shares and voting rights of LayerWise NV (“LayerWise”). LayerWise is a provider of advanced direct metal 3D printing and manufacturing services and delivers quick-turn, 3D-printed metal parts, manufactured on its own proprietary line of direct metal 3D printers, for aerospace, high-precision equipment, and medical and dental customers. The fair value of the consideration paid for this acquisition, net of cash acquired, was \$41,933, all of which was paid in cash. The operations of LayerWise have been integrated into the Company’s service revenues. The fair value of the consideration paid for this acquisition was allocated to the assets purchased and liabilities assumed, based on their estimated fair values as of the acquisition date, with any excess recorded as goodwill, and is included in the table below, which summarizes 2014 acquisitions.

On November 25, 2014, the Company acquired 70% of the outstanding shares and voting rights of Robtec, an additive manufacturing service bureau and distributor of 3D printing and scanning products. Under the terms of the agreement, the Company acquired 70% of the shares of Robtec at closing and the remainder of the shares will be acquired by the Company on the fifth anniversary of the closing. The fair value of the consideration paid for this acquisition, net of cash acquired, was \$21,880, all of which was paid in cash. The operations of Robtec have been integrated into the Company’s service revenues. The fair value of the consideration paid for this acquisition was allocated to the assets purchased and liabilities assumed, based on the estimated fair values as of the acquisition date, with any excess recorded as goodwill, and is included in the table below, which summarizes 2014 acquisitions.

On December 16, 2014, the Company acquired 100% of the outstanding shares and voting rights of botObjects Ltd. (“botObjects”), a company that develops consumer 3D printers. The fair value of the consideration paid for this acquisition, net of cash acquired, was \$24,743, all of which was paid in cash. The operations of botObjects have been integrated into the Company’s service revenues. The fair value of the consideration paid for this acquisition was allocated to the assets purchased and liabilities assumed, based on the estimated fair values as of the acquisition date, with any excess recorded as goodwill, and is included in the table below, which summarizes 2014 acquisitions.

Subject to the terms and conditions of the botObejcts purchase agreement, the sellers have the right to earn an additional amount, of up to a maximum of approximately \$25,000, pursuant to an earnout formula over a three-year period as set forth in the acquisition agreement. The earnout was determined not to be acquisition consideration and therefore will be recorded as compensation expense in the period earned.

On December 17, 2014, the Company acquired a product line related to its materials business. The fair value of the consideration paid for this acquisition, net of cash acquired, was \$54,552, all of which was paid in cash. The company completed this acquisition as part of its improved business continuity and operational excellence initiatives. The operations have been integrated into the Company’s materials production. The fair value of the consideration paid for this acquisition was allocated to the assets purchased and liabilities assumed, based on the estimated fair values as of the acquisition date, with any excess recorded as goodwill, and is included in the table below, which summarizes 2014 acquisitions.

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For all acquisitions made in 2014, factors considered by the Company in determination of goodwill include synergies, vertical integration and strategic fit for the Company. The acquisitions completed during the year are not material relative to the Company's assets or operating results; therefore, no proforma financial information is provided.

The amounts related to the acquisitions of these businesses were allocated to the assets acquired and the liabilities assumed and included in the Company's consolidated balance sheet at December 31, 2014 as follows:

(in thousands)	2014
Fixed assets	\$ 19,279
Other intangible assets, net	127,315
Goodwill	259,422
Other assets, net of cash acquired	38,583
Liabilities	(75,364)
Net assets acquired	\$ 369,235

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## 2013 Acquisitions

On January 9, 2013, the Company acquired 100% of the shares of common stock and voting equity of Co-Web. Co-Web is a start-up that creates consumer customized 3D printed products and collectibles. Co-Web's operations have been integrated into the Company's Cubify consumer solutions and included in services revenue. The fair value of the consideration paid for this acquisition, net of cash acquired, was \$262, based on the exchange rate of the Euro at the date of acquisition, all of which was paid in cash. The fair value of the consideration paid for this acquisition was allocated to the assets purchased and liabilities assumed, based on their estimated fair values as of the acquisition date, with any excess recorded as goodwill, and is included in the table below, which summarizes 2013 acquisitions.

On February 27, 2013, the Company acquired 100% of the shares of common stock and voting equity of Geomagic, Inc. ("Geomagic"). Geomagic is a leading global provider of 3D authoring solutions including design, sculpt and scan software tools that are used to create 3D content and inspect products throughout the entire design and manufacturing process. Geomagic's operations have been integrated into the Company and are included in products and services revenue. The fair value of the consideration paid for this acquisition, net of cash acquired, was \$52,687, all of which was paid in cash. The fair value of the consideration paid for this acquisition was allocated to the assets purchased and liabilities assumed based on their estimated fair values as of the acquisition date, with any excess recorded as goodwill, and is included in the table below, which summarizes 2013 acquisitions.

On May 1, 2013, the Company acquired certain assets and liabilities of Rapid Product Development Group, Inc. ("RPDG"). RPDG is a global provider of additive and traditional quick turn manufacturing services. RPDG's operations have been integrated into the Company's On-demand parts services and are included in services revenue. The fair value of the consideration paid for this acquisition, net of cash acquired, was \$44,413, of which \$33,163 has been paid in cash and \$6,750 has been paid in shares of the Company's stock. The remaining \$4,500 deferred purchase price was paid on the 12 month anniversary of the closing date with \$3,750 of cash and \$750 in shares of the Company's stock. These shares were issued in a private transaction exempt from registration under the Securities Act of 1933. The fair value of the consideration paid for this acquisition was allocated to the assets purchased and liabilities assumed, based on their estimated fair values as of the acquisition date, with any excess recorded as goodwill, and is included in the table below, which summarizes 2013 acquisitions.

On July 15, 2013, the Company acquired approximately 82% of the outstanding shares and voting rights of Phenix Systems, a leading global provider of direct metal selective laser sintering 3D printers. During 2013, the Company acquired additional shares and completed a tender offer. As of December 31, 2014, the Company owned approximately 95% of the capital and voting rights of Phenix Systems. Phenix Systems designs, manufactures and sells proprietary direct metal 3D printers that can print chemically pure, fully dense metal and ceramic parts from very fine powders. The fair value of the consideration paid for this acquisition, net of cash acquired, was approximately \$16,975 based on the exchange rate at the date of acquisition, all of which was paid in cash. Phenix's operations have been integrated into printers and other products and services revenue. The fair value of the consideration paid for this acquisition was allocated to the assets purchased and liabilities assumed, based on their estimated fair values as of the acquisition date, with any excess recorded as goodwill, and is included in the table below, which summarizes 2013 acquisitions.

On August 6, 2013, the Company acquired 100% of the common stock, preferred stock and voting equity of VisPower Technology, Inc., a cloud-based, collaborative design and project management platform (“TeamPlatform”). The fair value of the consideration paid for this acquisition, net of cash acquired, was \$4,998, all of which was paid in cash. TeamPlatform’s operations have been integrated into the Company’s professional and consumer offerings, including Geomagic Solutions and Cubify.com. The fair value of the consideration paid for this acquisition was allocated to the assets purchased and liabilities assumed, based on their estimated fair values as of the acquisition date, with any excess recorded as goodwill, and is included in the table below, which summarizes 2013 acquisitions.

On August 20, 2013, the Company acquired 100% of the common stock and voting equity of CRDM, Ltd. (“CRDM”), a provider of rapid prototyping and rapid tooling services. The fair value of the consideration paid for this acquisition, net of cash acquired, was approximately \$6,399 based on the exchange rate at the date of acquisition, all of which was paid in cash. CRDM’s operations have been integrated into the Company’s global On-demand parts custom parts and manufacturing services revenue. The fair value of the consideration paid for this acquisition was allocated to the assets purchased and liabilities assumed, based on their estimated fair values as of the acquisition date, with any excess recorded as goodwill, and is included in the table below, which summarizes 2013 acquisitions.

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On September 6, 2013, the Company acquired the assets of The Sugar Lab, a start-up that is dedicated to 3D printing customized, multi-dimensional, edible confections. The fair value of the consideration paid for this acquisition, net of cash acquired, was \$1,500, of which \$1,000 was paid in cash and \$500 was paid in shares of the Company's stock. These shares were issued in a private transaction exempt from registration under the Securities Act of 1933. The Sugar Lab's operations have been integrated into the Company's printers and services revenue. The fair value of the consideration paid for this acquisition was allocated to the assets purchased and liabilities assumed, based on their estimated fair values as of the acquisition date, with any excess recorded as goodwill, and is included in the table below, which summarizes 2013 acquisitions.

On December 4, 2013, the Company acquired 100% of the common stock and voting equity of Figulo Corporation, a provider of 3D-printed ceramics. The fair value of the consideration paid for this acquisition, net of cash acquired, was \$2,846, of which \$1,996 was paid in cash and \$850 was paid in shares of the Company's stock. These shares were issued in a private transaction exempt from registration under the Securities Act of 1933. Figulo's operations have been integrated into the Company's printers and services revenue. The fair value of the consideration paid for this acquisition was allocated to the assets purchased and liabilities assumed, based on their estimated fair values as of the acquisition date, with any excess recorded as goodwill, and is included in the table below, which summarizes 2013 acquisitions.

On December 13, 2013, the Company acquired 100% of the common stock and voting equity of Village Plastics Co., a manufacturer of filament-based ABS, PLA and HIPS 3D printing materials. The fair value of the consideration paid for this acquisition, net of cash acquired, was \$6,361, of which \$4,361 was paid in cash and \$2,000 was paid in shares of the Company's stock. These shares were issued in a private transaction exempt from registration under the Securities Act of 1933. Village Plastics operations have been integrated into the Company's supply chain and manufacturing operations. The fair value of the consideration paid for this acquisition was allocated to the assets purchased and liabilities assumed, based on their estimated fair values as of the acquisition date, with any excess recorded as goodwill, and is included in the table below, which summarizes 2013 acquisitions.

On December 23, 2013, the Company acquired 100% of the common stock and voting rights of Gentle Giant Studios, Inc., a provider of 3D scanning and modeling content for the entertainment and toy industries. The fair value of the consideration paid for this acquisition, net of cash acquired, was \$10,650, of which \$7,975 was paid in cash and \$2,675 was paid in shares of the Company's stock. These shares were issued in a private transaction exempt from registration under the Securities Act of 1933. Gentle Giant Studios' technology and content have been integrated into the Company's service revenue. The fair value of the consideration paid for this acquisition was allocated to the assets purchased and liabilities assumed, based on their estimated fair values as of the acquisition date, with any excess recorded as goodwill, and is included in the table below, which summarizes 2013 acquisitions. The Company's purchase price allocations are preliminary and subject to revision as more detailed analyses are completed and additional information about fair value of assets and liabilities becomes available.

Subject to the terms and conditions of the Gentle Giant Share Purchase Agreement, additional consideration will be paid on the third, fourth and fifth anniversaries of the Closing Date, calculated based on revenues of Gentle Giant for the 12 month period prior to each such anniversary date.

On December 31, 2013, the Company acquired certain assets of Xerox Corporation's Wilsonville, Oregon product design, engineering and chemistry group and related assets. The fair value of the consideration paid for this acquisition, net of cash acquired, was \$32,500, all of which was paid in cash. The Wilsonville team and assets have been integrated into the Company's R&D operations. The fair value of the consideration paid for this acquisition was allocated to the assets purchased and liabilities assumed, based on their estimated fair values as of the acquisition date, with any excess recorded as goodwill, and is included in the table below, which summarizes 2013 acquisitions.

For all acquisitions made in 2013, factors considered by the Company in determination of goodwill include synergies, vertical integration and strategic fit for the Company. The acquisitions completed during the year are not material relative to the Company's assets or operating results; therefore, no proforma financial information is provided. The amounts related to the acquisitions of these businesses were allocated to the assets acquired and the liabilities assumed and included in the Company's consolidated balance sheet at December 31, 2013 as follows:

(in thousands)	2013
Fixed assets	\$ 9,830
Other intangible assets, net	51,930
Goodwill	128,328
Other assets, net of cash acquired	21,843
Liabilities	(32,340)
Net assets acquired	\$ 179,591



## Note 4 Inventories

Components of inventories, net at December 31, 2015 and 2014 are as follows:

(in thousands)	2015	2014
Raw materials	\$ 43,960	\$ 46,850
Work in process	4,067	2,304
Finished goods and parts	57,850	47,491
Inventories, net	\$ 105,877	\$ 96,645

During the year ended December 31, 2015, the Company recorded an inventory write-down of \$21,550, of which approximately \$18,619 was recorded in the fourth quarter related to the end-of-life of the Cube 3D printer and the Company's shift away from consumer products.

## Note 5 Property and Equipment

Property and equipment at December 31, 2015 and 2014 are summarized as follows:

(in thousands)	2015	2014	Useful Life (in years)
Land	\$ 903	\$ 541	N/A
Building	11,007	9,370	25-30
Machinery and equipment	105,383	84,443	2-7
Capitalized software	7,391	3,693	3-5
Office furniture and equipment	4,714	3,478	1-5
Leasehold improvements	17,867	12,447	Life of lease (a)
Rental equipment	149	557	5
Construction in progress	9,578	20,082	N/A

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Total property and equipment	156,992	134,611
Less: Accumulated depreciation and amortization	(70,997)	(52,730)
Total property and equipment, net	\$ 85,995	\$ 81,881

(a) Leasehold improvements are amortized on a straight-line basis over the shorter of (i) their estimated useful lives and (ii) the estimated or contractual life of the related lease.

Depreciation expense on property and equipment for the years ended 2015, 2014 and 2013 was \$20,979, \$14,727 and \$9,746, respectively.

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## Note 6 Intangible Assets

Intangible assets other than goodwill at December 31, 2015 and December 31, 2014 are as follows:

(in thousands)	2015			2014			Useful Life (in years)	Weighted Average Useful Life Remaining (in years)
	Gross	Accumulated Amortization	Net	Gross	Accumulated Amortization	Net		
Intangible assets with finite lives:								
Licenses	\$ —	\$ —	\$ —	\$ 5,875	\$ (5,875)	\$ —	N/A	N/A
Patent costs	16,251	(4,895)	11,356	20,733	(7,369)	13,364	1-19	8
Acquired technology	52,809	(16,405)	36,404	57,383	(18,241)	39,142	2-15	4
Internally developed software	4,730	(2,919)	1,811	9,073	(5,517)	3,556	3	3
Customer relationships	101,933	(36,158)	65,775	157,139	(36,975)	120,164	2-15	7
Non-compete agreements	12,163	(8,558)	3,605	35,469	(11,784)	23,685	2-5	3
Trade names	28,108	(12,498)	15,610	21,800	(4,455)	17,345	1-9	6
Other	46,435	(23,530)	22,905	39,100	(6,905)	32,195	1-7	5
Intangible assets with indefinite lives:								
Trademarks	—	—	—	2,110	—	2,110	N/A	N/A
Total intangible assets	\$ 262,429	\$ (104,963)	\$ 157,466	\$ 348,682	\$ (97,121)	\$ 251,561	1-19	5

Amortization expense related to costs incurred to internally develop and extend patents in the United States and various other countries was \$303, \$281 and \$250 for the years ended December 31, 2015, 2014 and 2013, respectively.

Amortization expense related to all other intangible assets was \$60,763, \$39,203 and \$20,447 for the years ended December 31, 2015, 2014 and 2013, respectively. Amortization of these intangible assets is calculated on a straight-line basis over periods ranging from one year to nineteen years.

Annual amortization expense for intangible assets is expected to be \$35,113 in 2016, \$32,087 in 2017, \$26,920 in 2018, \$21,606 in 2019 and \$16,912 in 2020.

During the fourth quarter of 2015, the Company recorded impairment charges of \$93,520, reflecting \$92,248 of impairment charges related to the Company's Americas reporting unit and \$1,272 of impairment charges related to the Company's EMEA reporting unit. Further, impairment charges reflected approximately \$63,852 of charges to customer relationships, \$19,164 of charges to acquired technology, \$5,952 of charges to trade names, \$3,416 of charges to non-compete agreements, \$791 of charges to other intangibles and \$345 of charges to internally developed software.

The impairment charges were measured as the difference between the carrying amount of the assets and their fair value. The fair value of the assets was determined under the income approach based on a discounted cash flow model using updated future revenue and operating income projections. In addition to impairment charges, gross intangible assets were negatively impacted by foreign currency translation. See Note 2 to the Consolidated Financial Statements.

## Note 7 Goodwill

The following are the changes in the carrying amount of goodwill by geographic reporting unit:

(in thousands)	Americas	EMEA	Asia Pacific	Total
Balance at December 31, 2013	\$ 264,735	71,155	34,176	370,066
Acquisitions and adjustments	72,872	163,025	—	235,897
Effect of foreign currency exchange rates	1,804	(17,238)	(992)	(16,426)
Balance at December 31, 2014	339,411	\$ 216,942	\$ 33,184	\$ 589,537
Acquisitions and adjustments	47,452	2,602	5,208	55,262
Impairment of goodwill	(382,271)	(61,388)	—	(443,659)
Effect of foreign currency exchange rates	(4,592)	(7,635)	(1,038)	(13,265)
Balance at December 31, 2015	\$ —	\$ 150,521	\$ 37,354	\$ 187,875

The effect of foreign currency exchange in this table reflects the impact on goodwill of amounts recorded in currencies other than the U.S. dollar on the financial statements of subsidiaries in these geographic areas resulting from the yearly effect of foreign currency translation between the applicable functional currency and the U.S. dollar. The remaining goodwill for EMEA and the entire amount of goodwill for Asia Pacific represent amounts allocated in U.S. dollars from the U.S. to those geographic areas for financial reporting purposes.

For discussion on goodwill impairment testing, see Note 2 to the Consolidated Financial Statements.

## Note 8 Employee Benefits

The Company sponsors a Section 401(k) plan (the “Plan”) covering substantially all its eligible U.S. employees. The Plan entitles eligible employees to make contributions to the Plan after meeting certain eligibility requirements. Contributions are limited to the maximum contribution allowances permitted under the Internal Revenue Code. The Company matches 50% of the employee contributions up to a maximum match of \$1.5, as set forth in the Plan. The Company may also make discretionary contributions to the Plan, which would be allocable to participants in accordance with the Plan.

In addition, the Company has several other U.S. and non-U.S. defined contribution plans covering eligible U.S. and non-U.S. employees, respectively. Postretirement benefits related to non-U.S. defined contribution plans, other than pensions, provide healthcare benefits, and in some instances, life insurance benefits for certain eligible employees.

For the years ended December 31, 2015, 2014 and 2013, the Company expensed \$956, \$721 and \$527, respectively, for matching contributions to defined contribution plans.

Note 9 Accrued and Other Liabilities

Accrued liabilities at December 31, 2015 and 2014 are as follows:

(in thousands)	2015	2014
Compensation and benefits	\$ 24,152	\$ 20,726
Vendor accruals	12,354	10,451
Accrued taxes	11,317	8,577
Accrued other	4,753	1,244
Royalties payable	1,431	1,796
Accrued professional fees	491	532
Accrued earnouts and deferred payments related to acquisitions	159	185
Accrued interest	42	43
Total	\$ 54,699	\$ 43,554

Other liabilities at December 31, 2015 and 2014 are summarized below:

(in thousands)	2015	2014
Arbitration award	\$ 11,282	\$ —
Long term employee indemnity	9,794	5,769
Long term earnouts related to acquisitions	9,673	8,970
Long term tax liability	8,312	2,029
Long term deferred revenue	7,956	7,627
Defined benefit pension obligation	6,211	7,062
Other long term liabilities	4,927	8,446
Total	\$ 58,155	\$ 39,903

#### Note 10 Hedging Activities and Financial Instruments

The Company conducts business in various countries using both the functional currencies of those countries and other currencies to effect cross border transactions. As a result, the Company is subject to the risk that fluctuations in foreign exchange rates between the dates that those transactions are entered into and their respective settlement dates will result in a foreign exchange gain or loss. When practicable, the Company endeavors to match assets and liabilities in the same currency on its balance sheet and those of its subsidiaries in order to reduce these risks. When appropriate, the Company enters into foreign currency contracts to hedge exposures arising from those transactions. The Company has elected not to prepare and maintain the documentation to qualify for hedge accounting treatment under Accounting Standards Codification (“ASC”) 815, “Derivatives and Hedging,” and therefore, all gains and losses (realized or unrealized) are recognized in “Interest and other expense, net” in the consolidated statements of operations and comprehensive income (loss). Depending on their fair value at the end of the reporting period, derivatives are recorded either in prepaid expenses and other current assets or in accrued liabilities on the consolidated balance sheet.

There were no foreign currency contracts outstanding at December 31, 2015 or 2014.

For the years ended December 31, 2015, 2014 and 2013, the consolidated statements of operations include a foreign currency transaction loss of \$3,263, a loss of \$5,727 and a loss of \$773, respectively.

For the years ended December 31, 2015, 2014 and 2013, the total impact of foreign currency translation on accumulated other comprehensive income (loss) reflects a loss of \$15,480, a loss of \$29,060 and a gain of \$1,918, respectively.

## Note 11 Borrowings

### Credit Facility

On October 10, 2014, the Company and certain of its subsidiaries entered into a \$150,000 five-year revolving, unsecured credit facility (the "Credit Agreement") with PNC Bank, National Association, as Administrative Agent, PNC Capital Markets LLC, as Sole Lead Arranger and Sole Bookrunner, HSBC Bank USA, N.A., as Syndication Agent, and the other lenders party thereto (collectively, the "Lenders"). The Credit Agreement comprises a revolving loan facility that provides for advances in the initial aggregate principal amount of up to \$150,000 (the "Credit Facility"). Subject to certain terms and conditions contained in the Credit Agreement, the Company may, at its option, request an increase in the aggregate principal amount available under the Credit Facility by an additional \$75,000. The Credit Agreement includes provisions for the issuance of letters of credit and swingline loans.

The Credit Agreement is guaranteed by certain of the Company's material domestic subsidiaries (the "Guarantors"). From time to time, the Company may be required to cause additional material domestic subsidiaries to become Guarantors under the Credit Agreement.

Generally, amounts outstanding under the Credit Facility bear interest, at the Company's option, at either the Base Rate or the LIBOR Rate, in each case, plus an applicable margin. Base Rate advances bear interest at a rate per annum equal to the sum of (i) the highest of (A) the Administrative Agent's prime rate, (B) the Federal Funds Open Rate plus 0.5% or (C) the Daily LIBOR Rate for a one month interest period plus 1%, and (ii) an applicable margin that ranges from 0.25% to 0.50% based upon the Company's consolidated total leverage ratio. LIBOR Rate advances bear interest at a rate based upon the London interbank offered rate for the applicable interest period, plus an applicable margin that ranges from 1.25% to 1.50% based upon the Company's consolidated total leverage ratio. Under the terms of the Credit Agreement, (i) accrued interest on each loan bearing interest at the Base Rate is payable quarterly in arrears and (ii) accrued interest on each loan bearing interest at the LIBOR Rate is payable in arrears on the earlier of (A) quarterly and (B) the last day of each applicable interest payment date for each loan. The Credit Facility is scheduled to mature on October 10, 2019, at which time all amounts outstanding thereunder will be due and payable.





The Company is required to pay certain fees in connection with the Credit Facility, including a quarterly commitment fee equal to the product of the amount of the average daily available revolving commitments under the Credit Agreement multiplied by a percentage that ranges from 0.20% to 0.25% depending upon the Company's consolidated total leverage ratio, as well as customary administrative fees.

The Credit Agreement contains customary representations, warranties, covenants and default provisions for a Credit Facility of this type, including, but not limited to, financial covenants, limitations on liens and the incurrence of debt, covenants to preserve corporate existence and comply with laws and covenants regarding the use of proceeds of the Credit Facility. The financial covenants include a maximum consolidated total leverage ratio, which is the ratio of consolidated total funded indebtedness to consolidated EBITDA (earnings before interest, taxes, depreciation and amortization expense), as defined in the Credit Agreement, of 3.00 to 1.00, and a minimum interest coverage ratio, which is the ratio of Consolidated EBITDA to cash interest expense, of 3.50 to 1.00. The Company is only required to be in compliance with the financial covenants as of the end of any fiscal quarter in which there are any loans outstanding at any time during such fiscal quarter. Based on the Company's current results of operations and financial covenants set forth in the Credit Agreement, availability at December 31, 2015 would be approximately \$150,000. Future results may positively or negatively impact availability.

The payment of dividends on the Company's common stock is restricted under provisions of the Credit Facility, which limits the amount of cash dividends that the Company may pay in any one fiscal year to \$30,000. The Company currently does not pay, and has not paid, any dividends on its common stock, and currently intends to retain any future earnings for use in its business.

There was no outstanding balance on the Credit Facility as of December 31, 2015 or 2014.

#### Interest Income and Expense

Interest income totaled \$521, \$482 and \$1,285 for the years ended December 31, 2015, 2014 and 2013, respectively.

Interest expense totaled \$2,011, \$1,227 and \$3,425 for the years ended December 31, 2015, 2014 and 2013, respectively. Interest expense for the year ended December 31, 2013 includes expense related to the issuance of 5.50% senior convertible notes that were fully converted in 2014.

#### Note 12 Lease Obligations

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The Company leases certain of its facilities and equipment under capitalized leases and other facilities and equipment under non-cancelable operating leases. The leases are generally on a net-rent basis, under which the Company pays taxes, maintenance and insurance. Leases that expire at various dates through 2031 are expected to be renewed or replaced by leases on other properties. Rent expense for the years ended December 31, 2015, 2014 and 2013 aggregated \$13,960, \$10,427 and \$6,891, respectively.

The Company's future minimum lease payments as of December 31, 2015 under capitalized leases and non-cancelable operating leases, with initial or remaining lease terms in excess of one year, were as follows:

(in thousands)	Capitalized Leases	Operating Leases
Years ending December 31:		
2016	\$ 1,056	\$ 10,817
2017	1,083	9,131
2018	1,079	7,458
2019	1,075	6,407
2020	1,013	3,898
Later years	8,229	11,432
Total minimum lease payments	13,535	\$ 49,143
Less: amounts representing imputed interest	(4,819)	
Present value of minimum lease payments	8,716	
Less: current portion of capitalized lease obligations	(529)	
Capitalized lease obligations, excluding current portion	\$ 8,187	

#### Rock Hill Facility

The Company leases its headquarters and research and development facility pursuant to a lease agreement with Lex Rock Hill, LP. After its initial term ending August 31, 2021, the lease provides the Company with the option to renew the lease for two additional five-year terms. The lease also grants the Company the right to cause Lex Rock Hill, subject to certain terms and conditions, to expand the leased premises during the term of the lease, in which case the term of the lease would be extended. The lease is a triple net lease and provides for the payment of base rent of \$669 in 2015, \$683 in 2016, \$709 in 2017 through 2020 and \$723 in 2021. Under the terms of the lease, the Company is obligated to pay all taxes, insurance, utilities and other operating costs with respect to the leased premises. This lease is recorded as a capitalized lease obligation under ASC 840, "Leases." The implicit interest rate was 6.93% as of December 31, 2015 and 2014.

#### Other Capital Lease Obligations

The Company leases other equipment with lease terms through August 2018. In accordance with ASC 840, the Company has recorded these leases as capitalized leases. The implicit interest rate ranged from 1.75% to 8.06% at December 31, 2015 and 2014.

#### Note 13 Preferred Stock

The Company had 5,000 shares of preferred stock that were authorized but unissued at December 31, 2015 and 2014.

#### Note 14 Stock-Based Compensation

Effective May 19, 2004, the Company adopted its 2004 Incentive Stock Plan, as further amended and restated on February 3, 2015 (the "2004 Stock Plan") and its 2004 Restricted Stock Plan for Non-Employee Directors (the "2004 Director Plan"). On May 19, 2015, the Company's stockholders approved the 2015 Incentive Plan of 3D Systems Corporation (the "2015 Plan" and, together with the 2004 Stock Plan, the "Incentive Plans"). Effective upon the adoption of these Plans, all the Company's previous stock option plans terminated, except with respect to options outstanding under those plans. As of December 31, 2015, 2014 and 2013, all vested options had been exercised and there were no options outstanding.

The purpose of the Incentive Plans is to provide an incentive that permits the persons responsible for the Company's growth to share directly in that growth and to better align their interests with the interests of the Company's stockholders. The 2015 Plan authorizes awards of restricted stock, restricted stock units, stock appreciation rights, cash incentive awards and the grant of options to purchase the Company's common stock. The 2015 Plan also designates measures that may be used for performance awards. Generally, awards granted prior to November 13, 2015 become fully-vested on the three-year anniversary of the grant date and awards granted after November 13, 2015 will vest one third each year over three years. Any person who is an employee or director of or consultant to the Company, or a subsidiary or an affiliate of the Company, is eligible to be considered for the grant of awards pursuant to the 2015 Plan. The 2015 Plan is administered by the Compensation Committee of the Board of Directors or a subcommittee thereof, which, pursuant to the provisions of the 2015 Plan, has the authority to determine recipients of awards under that plan, the number of shares to be covered by such awards and the terms and conditions of each award. Notwithstanding the foregoing, only the full Board of Directors may grant and administer awards under the 2015 Plan to non-employee directors. The 2015 Plan may be amended, altered or discontinued at the sole discretion of the Board of Directors at any time. As of December 31, 2015, the number of shares of common stock reserved for issuance under the Incentive Plans was 5,972.

The purpose of 2004 Director Plan is to attract, retain and motivate non-employee directors of exceptional ability and to promote the common interests of directors and stockholders in enhancing the value of the Company's common stock. Each non-employee director of the Company is eligible to participate in this Plan upon their election to the Board of Directors. The Plan provides for initial grants of 1 share of common stock to each newly elected non-employee director, annual grants of 3 shares of common stock as of the close of business on the date of each annual meeting of stockholders, and interim grants of 3 shares of common stock, or a pro rata portion thereof, to non-employee directors elected at meetings other than the annual meeting. Effective April 1, 2013, the Board of Directors amended this Plan to increase the limit of the value of any award of shares made to an eligible director to \$100, valued on the date of award. The issue price of common stock awarded under this Plan is equal to the par value per share of the common stock. The Company accounts for the fair value of awards of common stock made under this Plan, net of the issue price, as director compensation expense in the period in which the award is made. As of December 31, 2015, the number of shares of common stock reserved for issuance under the 2004 Director Plan was 106.

The Company records stock-based compensation expense in selling, general and administrative expenses in the consolidated statements of operations and comprehensive income (loss). Stock-based compensation expense for the years ended December 31, 2015, 2014 and 2013 was as follows:

(in thousands)	Year Ended December 31,		
	2015	2014	2013
Stock-based compensation expense for:			
Incentive Plans	\$ 34,169	\$ 31,944	\$ 12,958
Director Plan	564	849	600
Total stock-based compensation expense	\$ 34,733	\$ 32,793	\$ 13,558

The number of shares and units of restricted common stock awarded and the weighted average fair value per share and unit for the years ended December 31, 2015, 2014 and 2013 were as follows:

(in thousands, except per share amounts)	Year Ended December 31,					
	2015	Weighted Average Fair Value	2014	Weighted Average Fair Value	2013	Weighted Average Fair Value
	Number of Shares/Units		Number of Shares/Units		Number of Shares/Units	
Restricted stock awards:						
Granted under the Incentive Plans, non-executive employees	1,152	\$ 16.30	774	\$ 52.09	902	\$ 59.42
Granted under the Incentive Plans, executive officers	260	14.77	240	41.00	212	72.60
Granted under the 2004 Director Plan, non-employee directors	26	21.30	17	49.26	12	48.43
Total restricted stock awards granted	1,438	\$ 16.12	1,031	\$ 49.46	1,126	\$ 61.78

The Company estimated the future expense associated with awards granted in 2015, 2014 and 2013 as \$22,898, \$49,121 and \$67,942, respectively, which is calculated based on the fair market value of the common stock on the date of grant less the amount paid by the recipient and is expensed over the vesting period of each award.

Note 15 International Retirement Plan

The Company sponsors a non-contributory defined benefit pension plan for certain employees of a non-U.S. subsidiary initiated by a predecessor of the subsidiary. The Company maintains insurance contracts that provide an annuity that is used to fund the current obligations under this plan. The net present value of the annuity was \$2,741 and \$2,981 as of December 31, 2015 and 2014, respectively. The net present value of that annuity is included in “Other assets, net” on the Company’s consolidated balance sheets at December 31, 2015 and 2014. The following table provides a reconciliation of the changes in the projected benefit obligation for the years ended December 31, 2015 and 2014:

(in thousands)	2015	2014
Reconciliation of benefit obligations:		
Obligations as of January 1	\$ 7,194	\$ 5,987
Service cost	178	150
Interest cost	156	200
Actuarial (gain) loss	(338)	1,719
Benefit payments	(119)	(144)
Effect of foreign currency exchange rate changes	(743)	(718)
Obligations as of December 31	6,328	7,194
Funded status as of December 31 (net of tax benefit)	\$ (6,328)	\$ (7,194)

For the year ended December 31, 2015, the Company recorded a \$338 gain and \$154 of actuarial amortization, net of a \$154 tax provision, as a \$338 adjustment to “Accumulated other comprehensive income (loss)” in accordance with ASC 715, “Compensation – Retirement Benefits.” For the year ended December 31, 2014, the Company recorded the \$1,719 loss, net of \$69 of actuarial amortization and a \$515 tax benefit, as a \$1,135 adjustment to “Accumulated other comprehensive income (loss)” in accordance with ASC 715, “Compensation – Retirement Benefits.”

The Company has recognized the following amounts in the consolidated balance sheets at December 31, 2015 and 2014:

(in thousands)	2015	2014
Accrued liabilities	\$ 117	\$ 132
Other liabilities	6,211	7,062
Projected benefit obligation	6,328	7,194
Accumulated other comprehensive loss	(1,873)	(2,211)
Total	\$ 4,455	\$ 4,983

The following projected benefit obligation and accumulated benefit obligation were estimated as of December 31, 2015 and 2014:

(in thousands)	2015	2014
Projected benefit obligation	\$ 6,328	\$ 7,194
Accumulated benefit obligation	\$ 5,738	\$ 6,301

The following table shows the components of net periodic benefit costs and other amounts recognized in other comprehensive income (loss):

(in thousands)	2015	2014
Net periodic benefit cost:		
Service cost	\$ 178	\$ 150
Interest cost	156	200
Amortization of actuarial loss	154	69
Total	\$ 488	\$ 419
Other changes in plan assets and benefit obligations recognized in other comprehensive income (loss):		
Net (gain) loss	(338)	1,135
Total expense recognized in net periodic benefit cost and other comprehensive income (loss)	\$ 150	\$ 1,554



The following assumptions are used to determine benefit obligations as of December 31:

	2015	2014
Discount rate	2.50%	2.40%
Rate of compensation	3.00%	3.00%

The following benefit payments, including expected future service cost, are expected to be paid:

(in thousands)

Estimated future benefit payments:

2016	\$ 132
2017	135
2018	138
2019	152
2020	181
2021-2025	1,045

## Note 16 Warranty Contracts

The Company provides product warranties for up to one year, or longer if required by applicable laws or regulations, as part of sales transactions for certain of its printers. Warranty revenue is recognized ratably over the term of the warranties, which is the period during which the related costs are incurred. This warranty provides the customer with maintenance on the equipment during the warranty period and provides for certain repair, labor and replacement parts that may be required. In connection with this activity, the Company recognized warranty revenue and incurred warranty costs as shown in the table below.

## Warranty Revenue Recognition:

(in thousands)	Beginning		Ending	
	Balance	Balance	Balance	Balance
Year Ended December 31,	Deferred	Warranty	Warranty	Deferred
	Warranty	Revenue	Revenue	Warranty
	Revenue	Deferred	Recognized	Revenue
2015	\$ 11,914	\$ 16,191	\$ (16,600)	\$ 11,505
2014	9,141	17,185	(14,412)	11,914
2013	4,081	14,681	(9,621)	9,141

## Warranty Costs Incurred:

(in thousands)	Labor and		
	Materials	Overhead	Total
Year Ended December 31,			
2015	\$ 6,202	\$ 6,134	\$ 12,336
2014	5,958	6,662	12,620
2013	4,441	4,821	9,262

## Note 17 Computation of Net Income per Share

The Company presents basic and diluted earnings per share (“EPS”) amounts. Basic EPS is calculated by dividing net income available to common stockholders by the weighted average number of common shares outstanding during the applicable period. Diluted EPS is calculated by dividing net income available to 3D Systems’ common stockholders by the weighted average number of common and common equivalent shares outstanding during the applicable period. The following table is a reconciliation of the numerator and denominator of the basic and diluted income per share computations for the years ended December 31, 2015, 2014 and 2013:

(in thousands, except per share amounts)	2015	2014	2013
Numerator for basic and diluted net earnings per share:			
Net income (loss) attributable to 3D Systems Corporation	\$ (655,492)	\$ 11,637	\$ 44,107
Denominator for basic and diluted net earnings per share:			
Weighted average shares	111,969	108,023	98,393
Earnings (loss) per share, basic and diluted	\$ (5.85)	\$ 0.11	\$ 0.45
Interest expense excluded from diluted earnings per share calculation (a)	\$ —	\$ —	\$ 1,835
5.50% Convertible notes shares excluded from diluted earnings per share calculation (a)	—	—	1,764
Restricted stock units excluded from diluted earnings per share calculation (b)	270	—	—

(a) Average outstanding diluted earnings per share calculation excludes shares that may be issued upon conversion of the outstanding senior convertible notes since the effect of their inclusion would have been anti-dilutive.

(b) Average outstanding diluted earnings (loss) per share calculation excludes restricted stock units since the effect of their inclusion would have been anti-dilutive.

## Note 18 Noncontrolling Interests

As of December 31, 2015, the Company owned approximately 95% of the capital and voting rights of Phenix Systems, a global provider of direct metal 3D printers. Phenix Systems was acquired on July 15, 2013.



As of December 31, 2015, the Company owned approximately 70% of the capital and voting rights of Robtec, a service bureau and distributor of 3D printing and scanning products. Robtec was acquired on November 25, 2014.

As of December 31, 2015, the Company owned approximately 65% of the capital and voting rights of Easyway, a service bureau and distributor of 3D printing and scanning products in China. Easyway was acquired on April 2, 2015.

#### Note 19 Fair Value Measurements

ASC 820, "Fair Value Measurements and Disclosures," defines fair value as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. ASC 820 also establishes a fair value hierarchy which requires an entity to maximize the use of observable inputs that may be used to measure fair value:

- Level 1 – Quoted prices in active markets for identical assets or liabilities;
- Level 2 – Observable inputs other than Level 1 prices such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities; or
- Level 3 – Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

For the Company, the above standard applies to cash equivalents, earnout consideration and redeemable noncontrolling interests. The Company utilizes the market approach to measure fair value for its financial assets and liabilities. The market approach uses prices and other relevant information generated by market transactions involving identical or comparable assets or liabilities.

Assets and liabilities measured at fair value on a recurring basis are summarized below:

(in thousands)	Fair Value Measurements as of December 31, 2015			
	Level 1	Level 2	Level 3	Total

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Description				
Cash equivalents (a)	\$ 28,648	\$ —	\$ —	\$ 28,648
Earnout consideration (b)	\$ —	\$	\$ 9,673	\$ 9,673

Fair Value Measurements as of December 31, 2014

(in thousands)	Level 1	Level 2	Level 3	Total
Description				
Cash equivalents (a)	\$ 190,628	\$ —	\$ —	\$ 190,628
Earnout consideration (b)	\$ —	\$	\$ 9,155	\$ 9,155
Redeemable noncontrolling interests (c)	\$ —	\$ —	\$ 8,872	\$ 8,872

- (a) Cash equivalents include funds held in money market instruments and are reported at their current carrying value which approximates fair value due to the short-term nature of these instruments and are included in cash and cash equivalents in the consolidated balance sheet.
- (b) The fair value of the earnout consideration, which is based on the present value of the expected future payments to be made to the sellers of the acquired businesses, was derived by analyzing the future performance of the acquired businesses using the earnout formula and performance targets specified in each purchase agreement and adjusting those amounts to reflect the ability of the acquired entities to achieve the stated targets. Given the significance of the unobservable inputs, the valuations are classified in level 3 of the fair value hierarchy. The change in earnout consideration reflects \$677 of earnout accretion, partially offset by a \$159 transfer to a deferred purchase payment provision.
- (c) Redeemable noncontrolling interests represents a put option that owners of interests in a certain subsidiary have the right, in certain circumstances, to require the Company to acquire either a portion of, or all of, the remaining ownership interests held by them. As of December 31, 2014, the Company determined the fair value of the redeemable noncontrolling interests based on unobservable inputs considering the assumptions that market participants would make in pricing the obligation. Given the significance of the unobservable inputs, the valuation was classified in level 3 of the fair value hierarchy. As of December 31, 2015, the Company believes the carrying value of the put option exceeds fair value, however, this instrument cannot be written down below the initial investment and the Company no longer considers it to be a recurring fair value measurement. See Note 22 to the Consolidated Financial Statements.

The Company did not have any transfers of assets and liabilities between Level 1 and Level 2 of the fair value measurement hierarchy during the quarter or year ended December 31, 2015.

In addition to the assets and liabilities included in the above table, certain of our assets and liabilities are to be initially measured at fair value on a non-recurring basis. This includes goodwill and other intangible assets measured at fair value for impairment assessment. For further discussion on the valuation techniques and inputs used in the fair value measurement of goodwill and other intangible assets, see Notes 2, 6 and 7 to the Consolidated Financial Statements.

#### Note 20 Income Taxes

The components of the Company's income before income taxes are as follows:

(in thousands)	2015	2014	2013
Income before income taxes:			
Domestic	\$ (580,720)	\$ 5,751	\$ 55,826
Foreign	(74,233)	11,636	8,180
Total	\$ (654,953)	\$ 17,387	\$ 64,006

The components of income tax provision for the years ended December 31, 2015, 2014 and 2013 are as follows:

(in thousands)	2015	2014	2013
Current:			
U.S. federal	\$ 10,753	\$ 23,336	\$ 24,688
State	169	72	1,926
Foreign	925	6,588	3,165
Total	11,847	29,996	29,779
Deferred:			
U.S. federal	(5,252)	(21,624)	(7,760)
State	(225)	(87)	(450)
Foreign	2,602	(2,844)	(1,682)
Total	(2,875)	(24,555)	(9,892)

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Total income tax provision \$ 8,972 \$ 5,441 \$ 19,887

The overall effective tax rate differs from the statutory federal tax rate for the years ended December 31, 2015, 2014 and 2013 as follows:

	% of Pretax Income		
	2015	2014	2013
Tax provision based on the federal statutory rate	35.0 %	35.0 %	35.0 %
Nondeductible expenses	(0.1)	12.5	—
Uncertain tax positions	(0.5)	11.2	—
Deemed income related to foreign operations	(0.6)	8.1	0.2
Return to provision adjustments, foreign current and deferred balances	(0.7)	2.5	(0.4)
Foreign income tax rate differential	(2.0)	0.5	(0.3)
State taxes, net of federal benefit, before valuation allowance	0.9	0.3	2.4
Increase in valuation allowances	(16.4)	—	—
Impairment of goodwill with no tax basis	(16.8)	—	—
Foreign tax credits related to above	0.2	(6.3)	—
Domestic production activities deduction	—	(12.0)	(3.6)
Research credits	—	(21.9)	(0.6)
Other	(0.4)	1.4	(1.6)
Effective tax rate	(1.4) %	31.3 %	31.1 %

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The difference between the Company's effective tax rate for 2015 and the federal statutory rate was 36.4 percentage points. The Company recorded nondeductible expenses, including non-deductible goodwill impairment charges and a valuation allowance in the U.S. and certain foreign jurisdictions, which contributed to a difference in the effective tax rate.

The difference between the Company's effective tax rate for 2014 and the federal statutory rate was 3.7 percentage points. The Company incurred nondeductible expenses and recognized income for tax purposes, net of tax credits, not included in financial statement income, increasing the effective tax rate. The Company is benefiting from the U.S. domestic production activities deduction and from research credits, reducing the effective tax rate.

The difference between the Company's effective tax rate for 2013 and the federal statutory rate was 3.9 percentage points. The Company reported positive U.S. taxable income, and was therefore entitled to use the domestic production activities deduction provided to producers in the United States, effectively lowering the U.S. tax rate applicable to production activities.

In 2015, the Company recorded a valuation allowance of \$107,312, including \$2,006 in various foreign jurisdictions, including France and the Netherlands. During the fourth quarter, based upon the Company's review of recent results of operations and forecast estimates in connection with the assessment of deferred tax benefits, the Company determined that it is more likely than not that the deferred tax assets in the US and those foreign jurisdictions will not be realized. In 2014, the Company had no valuation allowance against net deferred income tax assets.

The components of the Company's net deferred income tax assets and net deferred income tax liabilities at December 31, 2015 and 2014 are as follows:

(in thousands)	2015	2014
Deferred income tax assets:		
Intangibles	\$ 46,293	\$ —
Stock options and restricted stock awards	22,010	15,156
Reserves and allowances	18,738	12,016
Net operating loss carryforwards	16,796	4,474
Tax credit carryforwards	9,926	4,139
Accrued liabilities	4,943	1,501
Deferred revenue	405	270
Valuation allowance	(107,312)	—
Total deferred income tax assets	11,799	37,556

Deferred income tax liabilities:		
Intangibles	22,676	50,324
Property, plant and equipment	3,851	2,122
Total deferred income tax liabilities	26,527	52,446
Net deferred income tax liabilities	\$ (14,728)	\$ (14,890)

In November 2015, the FASB issued Accounting Standards Update No. 2015-17 “Income Taxes: Balance Sheet Classification of Deferred Taxes” (“ASU 2015-17”), which requires all deferred tax assets and liabilities to be classified as non-current on an entity’s balance sheet. This standard is effective for fiscal years beginning after December, 15, 2017, with early adoption permitted. ASU 2015-17 may be applied either prospectively, for all deferred tax assets and liabilities, or retrospectively. The Company has elected to early adopt ASU 2015-17, on a prospective basis, as of December 31, 2015. Deferred tax assets and liabilities on the Company’s balance sheet for December 31, 2015 have been classified as entirely non-current; however, the adoption is on a prospective basis and deferred tax assets and liabilities on the Company’s balance sheet as of December 31, 2014 have not been re-classified.

The Company accounts for income taxes in accordance with ASC 740. Under ASC 740, deferred income tax assets and liabilities are determined based on the differences between financial statement and tax bases of assets and liabilities, using enacted rates in effect for the year in which the differences are expected to reverse. The provision for income taxes is based on domestic and international statutory income tax rates in the jurisdictions in which the Company operates, prior to any valuation allowances.

At December 31, 2015, \$16,796 of the Company’s deferred income tax assets was attributable to \$85,609 of net operating loss carryforwards, which consisted of \$33,606 loss carryforwards for U.S. federal income tax purposes, \$34,492 of loss carryforwards for U.S. state income tax purposes and \$17,511 of loss carryforwards for foreign income tax purposes.

At December 31, 2014, \$4,474 of the Company's deferred income tax assets was attributable to \$38,338 of net operating loss carryforwards, which consisted of \$5,092 loss carryforwards for U.S. federal income tax purposes, \$26,365 of loss carryforwards for U.S. state income tax purposes and \$6,881 of loss carryforwards for foreign income tax purposes.

The net operating loss carryforwards for U.S. federal income tax purposes begin to expire in 2022. The net operating loss carryforwards for U.S. state income tax purposes begin to expire in 2020. In addition, certain loss carryforwards for foreign income tax purposes begin to expire in 2018 and certain other loss carryforwards for foreign purposes do not expire.

At December 31, 2015, tax credit carryforwards included in the Company's deferred income tax assets consisted of \$3,368 of research and experimentation credit carryforwards for U.S. federal income tax purposes, \$2,082 of research and experimentation tax credit carryforwards for U.S. state income tax purposes, \$3,232 of foreign tax credits for U.S. federal income tax purposes, \$474 of other U.S. federal tax credits, \$155 of research and experimentation tax credit carryforwards for foreign income tax purposes and \$615 of other state tax credits. The state research and experimentation credits do not expire; the other state credits begin to expire in 2017. The Company recorded a valuation allowance related to the U.S. federal and state tax credits.

At December 31, 2014, tax credit carryforwards included in the Company's deferred income tax assets consisted of \$2,196 of research and experimentation tax credit carryforwards for U.S. state income tax purposes, \$810 of foreign tax credits for U.S. federal income tax purposes, \$518 of research and experimentation tax credit carryforwards for foreign income tax purposes and \$615 of other state tax credits. The state research and experimentation credits do not expire; the other state credits begin to expire in 2017.

The Company recorded a reduction of \$1,243 to additional paid-in capital during 2015 with respect to the vesting of restricted stock awards.

The Company has not provided for any taxes on approximately \$18,615 of unremitted earnings of its foreign subsidiaries, as the Company intends to permanently reinvest all such earnings outside the U.S. We believe a calculation of the deferred tax liability associated with these undistributed earnings is impracticable.

The Company increased its unrecognized benefits by \$6,451 for the year ended December 31, 2015 and increased these benefits by \$1,829 for the year ended December 31, 2014. The Company does not anticipate any additional unrecognized tax benefits during the next 12 months that would result in a material change to its consolidated financial position.

(in thousands)	Unrecognized Tax Benefits		
	2015	2014	2013
Balance at January 1	\$ (1,845)	\$ (16)	\$ (475)
Increases related to prior year tax positions	—	—	380
Decreases related to prior year tax positions	1,475	—	—
Increases related to current year tax positions	(7,926)	(1,829)	—
Decreases related to current year tax positions	—	—	—
Decreases in unrecognized liability due to settlements with foreign tax authorities	—	—	79
Balance at December 31	\$ (8,296)	\$ (1,845)	\$ (16)

The Company includes interest and penalties in the Consolidated Financial Statements as a component of income tax expense.

Tax years 2012 through 2014 remain subject to examination by the U.S. Internal Revenue Service. The Company has utilized U.S. loss carryforwards causing the years 1997 to 2007 to be subject to examination. The Company files income tax returns (which are open to examination beginning in the year shown in parentheses) in Australia (2009), Belgium (2012), Brazil (2010), China (2012), France (2012), Germany (2010), India (2011), Israel (2012), Italy (2011), Japan (2010), Korea (2010), Mexico (2010), Netherlands (2010), Switzerland (2010), the United Kingdom (2014) and Uruguay (2010).

## Note 21 Segment Information

The Company operates in one reportable business segment. The Company conducts its business through various offices and facilities located throughout the Asia Pacific region (Australia, China, India, Japan and Korea), Europe (Belgium, France, Germany, Italy, the Netherlands, Switzerland and the United Kingdom), Israel, Latin America (Brazil, Mexico and Uruguay), Russia and the United States. The Company has historically disclosed summarized financial information for the geographic areas of operations as if they were segments in accordance with ASC 280, "Segment Reporting." Financial information concerning the Company's geographical locations is based on the location of the selling entity. Such summarized financial information concerning the Company's geographical operations is shown in the following tables:

(in thousands)	2015	2014	2013
Revenue from unaffiliated customers:			
Americas	\$ 357,976	\$ 333,925	\$ 284,752
Germany	82,872	87,021	51,245
Other EMEA	117,232	109,066	82,536
Asia Pacific	108,083	123,640	94,867
Total revenue	\$ 666,163	\$ 653,652	\$ 513,400

(in thousands)	2015	2014	2013
Revenue by class of product and service:			
Products	\$ 257,379	\$ 283,339	\$ 227,627
Materials	150,740	158,859	128,405
Services	258,044	211,454	157,368
Total revenue	\$ 666,163	\$ 653,652	\$ 513,400

## Year Ended December 31, 2015

## Intercompany Sales to

(in thousands)	Americas	Germany	Other EMEA	Asia Pacific	Total
Americas	\$ 3,073	\$ 36,552	\$ 17,133	\$ 17,602	\$ 74,360
Germany	70	—	6,149	125	6,344
Other EMEA	58,419	4,232	3,494	6,047	72,192
Asia Pacific	3,027	4	79	3,585	6,695
Total	\$ 64,589	\$ 40,788	\$ 26,855	\$ 27,359	\$ 159,591

## Year Ended December 31, 2014

## Intercompany Sales to

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(in thousands)	Americas	Germany	Other EMEA	Asia Pacific	Total
Americas	\$ 201	\$ 43,841	\$ 20,581	\$ 14,433	\$ 79,056
Germany	3,217	—	6,742	8	9,967
Other EMEA	42,622	3,115	2,066	2,739	50,542
Asia Pacific	2,283	—	—	2,774	5,057
Total	\$ 48,323	\$ 46,956	\$ 29,389	\$ 19,954	\$ 144,622

Year Ended December 31, 2013

Intercompany Sales to

(in thousands)	Americas	Germany	Other EMEA	Asia Pacific	Total
Americas	\$ —	\$ 23,100	\$ 15,622	\$ 5,438	\$ 44,160
Germany	1,825	—	4,135	—	5,960
Other EMEA	26,862	1,688	2,090	566	31,206
Asia Pacific	1,659	641	67	1,431	3,798
Total	\$ 30,346	\$ 25,429	\$ 21,914	\$ 7,435	\$ 85,124

(in thousands)	2015	2014	2013
Income (loss) from operations:			
Americas	\$ (587,435)	\$ (24,663)	\$ 43,743
Germany	337	2,749	302
Other EMEA	(82,593)	9,181	7,849
Asia Pacific	29,639	40,131	30,499
Subtotal	(640,052)	27,398	82,393
Inter-segment elimination	(1,872)	(1,083)	(1,532)
Total	\$ (641,924)	\$ 26,315	\$ 80,861

(in thousands)	2015	2014	2013
Depreciation and amortization:			
Americas	\$ 43,613	\$ 38,876	\$ 21,826
Germany	1,011	1,075	961
Other EMEA	33,585	11,427	4,410
Asia Pacific	4,860	3,810	3,247
Total	\$ 83,069	\$ 55,188	\$ 30,444

(in thousands)	2015	2014	2013
Capital expenditures:			
Americas	\$ 14,062	\$ 18,187	\$ 5,166
Germany	613	235	21
Other EMEA	6,856	3,680	1,171
Asia Pacific	868	625	614
Total	\$ 22,399	\$ 22,727	\$ 6,972

(in thousands)	At December 31,		
	2015	2014	2013
Assets:			
Americas	\$ 384,054	\$ 1,018,113	\$ 870,208
Germany	36,782	47,524	38,685
Other EMEA	369,302	384,830	120,562
Asia Pacific	103,137	79,843	68,401
Total	\$ 893,275	\$ 1,530,310	\$ 1,097,856

(in thousands)	At December 31,		
	2015	2014	2013
Cash and cash equivalents:			
Americas	\$ 98,913	\$ 245,219	\$ 286,377
Germany	3,901	6,640	3,441
Other EMEA	30,487	15,556	8,915
Asia Pacific	22,342	17,447	7,583
Total	\$ 155,643	\$ 284,862	\$ 306,316

At December 31,

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(in thousands)	2015	2014	2013
Long-lived assets:			
Americas	\$ 114,680	\$ 570,049	\$ 426,221
Germany	14,088	19,994	23,134
Other EMEA	271,892	312,384	71,269
Asia Pacific	60,148	47,193	50,377
Total	\$ 460,808	\$ 949,620	\$ 571,001



## Note 22 Commitments and Contingencies

The Company leases office space and certain furniture and fixtures under various non-cancelable operating leases. Rent expense under operating leases was \$13,960, \$10,427 and \$6,891 for 2015, 2014 and 2013, respectively. See Note 12 to the Consolidated Financial Statements.

As of December 31, 2015, the Company has supply commitments for printer and other products assemblies for the first quarter of 2016 that total \$50,663 compared to \$56,620 at December 31, 2014.

Certain of the Company's acquisitions contain earnout and deferred payment provisions under which the sellers of the acquired businesses can earn additional amounts. The total liability recorded for these earnouts and deferred payments at December 31, 2015 is \$9,832, compared to \$9,155 at December 31, 2014. See Note 3 for details of acquisitions and related commitments.

### Put Options

Owners of interests in a certain subsidiary have the right in certain circumstances to require the Company to acquire either a portion of or all of the remaining ownership interests held by them. The owners' ability to exercise any such "put option" right is subject to the satisfaction of certain conditions, including conditions requiring notice in advance of exercise. In addition, these rights cannot be exercised prior to a specified exercise date. The exercise of these rights at their earliest contractual date would result in obligations of the Company to fund the related amounts in 2019.

Management estimates, assuming that the subsidiary owned by the Company at December 31, 2015, performs over the relevant future periods at their forecasted earnings levels, that these rights, if exercised, could require the Company, in future periods, to pay approximately \$8,872 to the owners of such rights to acquire such ownership interests in the relevant subsidiary. This amount has been recorded as redeemable noncontrolling interests on the balance sheet at December 31, 2015 and December 31, 2014. The ultimate amount payable relating to this transaction will vary because it is dependent on the future results of operations of the subject business.

### Indemnification

In the normal course of business, the Company periodically enters into agreements to indemnify customers or suppliers against claims of intellectual property infringement made by first parties arising from the use of the

Company's products. Historically, costs related to these indemnification provisions have not been significant, and the Company is unable to estimate the maximum potential impact of these indemnification provisions on its future results of operations.

To the extent permitted under Delaware law, the Company indemnifies directors and officers for certain events or occurrences while the director or officer is, or was, serving at the Company's request in such capacity, subject to limited exceptions. The maximum potential amount of future payments the Company could be required to make under these indemnification obligations is unlimited; however, the Company has directors and officers insurance coverage that may enable the Company to recover future amounts paid, subject to a deductible and the policy limits. There is no assurance that the policy limits will be sufficient to cover all damages, if any.

### Litigation

The Company and certain of its former executive officers have been named as defendants in a consolidated putative stockholder class action lawsuit pending in the United States District Court for the District of South Carolina. The consolidated action is styled KBC Asset Management NV v. 3D Systems Corporation, et al., Case No. 0:15-cv-02393-MGL. The Amended Consolidated Complaint (the "Complaint"), which was filed on December 9, 2015, alleges that defendants violated the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and Rule 10b-5 promulgated thereunder by making false and misleading statements and omissions and that the former officers are control persons under Section 20(a) of the Exchange Act. The Complaint was filed on behalf of stockholders who purchased shares of the Company's common stock between October 29, 2013, and May 5, 2015 and seeks monetary damages on behalf of the purported class.

Defendants filed a motion to dismiss the Complaint in its entirety on January 14, 2016, which motion is currently pending.

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Five related derivative complaints have been filed by purported Company stockholders against certain of the Company's former executive officers and members of its Board of Directors. The Company is named as a nominal defendant in all five actions. The derivatives complaints were filed and are styled as follows: (1) Steyn v. Reichental, et al., Case No. 2015-CP-46-2225, filed on July 27, 2015 in the Court of Common Pleas for the 16th Judicial Circuit, County of York, South Carolina; (2) Piguing v. Reichental, et al., Case No. 2015-CP-46-2396, filed on August 7, 2015 in the Court of Common Pleas for the 16th Judicial Circuit, County of York, South Carolina; (3) Booth v. Reichental, et al., Case No. 15-692-RGA, filed on August 6, 2015 in the United States District Court for the District of Delaware ("Booth"); (4) Nally v. Reichental, et al., Case No. 15-cv-03756-MGL filed on September 18, 2015 in the United States District Court for the District of South Carolina; and (5) Gee v. Hull, et al. Case No. BC-610319, filed on February 17, 2016 in the Superior Court for the State of California, County of Los Angeles.

The derivative complaints allege claims for breach of fiduciary duty, abuse of control, gross mismanagement, waste of corporate assets, and unjust enrichment and seek, among other things, monetary damages and certain corporate governance actions.

All of the derivative complaints except for the complaint in Gee v. Hull have been stayed until the earlier of the close of discovery or the deadline for appealing a dismissal in the KBC Asset Management NV securities class action.

The Company believes the claims alleged in the putative securities class action and the derivative lawsuits are without merit and intends to defend the Company and its officers and directors vigorously.

On August 23, 2013, Ronald Barranco, a former Company employee, filed two lawsuits against the Company and certain officers in the United States District Court for the District of Hawaii. The first lawsuit ("Barranco I") is captioned Ronald Barranco and Print3D Corporation v. 3D Systems Corporation, 3D Systems, Inc., and Damon Gregoire, Case No. CV 13-411 LEK RLP, and alleges seven causes of action relating to the Company's acquisition of Print3D Corporation (of which Mr. Barranco was a 50% shareholder) and subsequent employment of Mr. Barranco. The second lawsuit ("Barranco II") is captioned Ronald Barranco v. 3D Systems Corporation, 3D Systems, Inc., Abraham Reichental, and Damon Gregoire, Case No. CV 13-412 LEK RLP, and alleges the same seven causes of action relating to the Company's acquisition of certain website domains from Mr. Barranco and subsequent employment of Mr. Barranco. Both Barranco I and Barranco II allege the Company breached certain purchase agreements in order to avoid paying Mr. Barranco additional monies pursuant to royalty and earn out provisions in the agreements. The Company and its officers timely filed responsive pleadings on October 22, 2013 seeking, inter alia, to dismiss Barranco I due to a mandatory arbitration agreement and for lack of personal jurisdiction and to dismiss Barranco II for lack of personal jurisdiction.

With regard to Barranco I, the Hawai'i district court, on February 28, 2014, denied the Company's motion to dismiss and its motion to transfer venue to South Carolina for the convenience of the parties. However, the Hawai'i court recognized that the plaintiff's claims are all subject to mandatory and binding arbitration in Charlotte, North Carolina. Because the Hawai'i court was without authority to compel arbitration outside of Hawai'i, the court ordered that the

case be transferred to the district court encompassing Charlotte (the Western District of North Carolina) so that that court could compel arbitration in Charlotte. On April 17, 2014, Barranco I was transferred in to the Western District of North Carolina. Plaintiff filed a demand for arbitration on October 29, 2014. On December 9, 2014, the Company filed its answer to plaintiff's demand for arbitration. On February 2, 2015, plaintiff filed an amended demand that removed Mr. Gregoire as a defendant from the matter and on February 4, 2015 the Company filed its amended answer. The parties selected an arbitrator and arbitration took place in June 2015 in Charlotte, North Carolina.

On September 28, 2015, the arbitrator issued a final award in favor of Mr. Barranco with respect to two alleged breaches of contract and implied covenants arising out of the contract. The arbitrator found that the Company did not commit fraud or make any negligent misrepresentations to Mr. Barranco. Pursuant to the award, the Company is to pay approximately \$11,282, which includes alleged actual damages of \$7,254, fees and expenses of \$2,318 and prejudgment interest of \$1,710. The Company disagrees with the single arbitrator's findings and conclusions and believes the arbitrator's decision exceeds his authority and disregards the applicable law. As an initial response, the Company filed a motion for modification on September 30, 2015, based on mathematical errors in the computation of damages and fees. On October 16, 2015, the arbitrator issued an order denying the Company's motion and sua sponte issuing a modified final award in favor of Mr. Barranco in the same above-referenced amounts, but making certain substantive changes to the award, which changes the Company believes were improper and outside the scope of his authority and the AAA rules. On November 20, 2015, the Company filed a Motion to Vacate the Arbitration Award in the federal court in the Western District of North Carolina. Claimants also filed a Motion to Confirm the Arbitration Award. Both motions have been fully briefed and are currently pending before the court. Should its initial appeal be unsuccessful, the Company intends to appeal further to the United States Court of Appeals for the Fourth Circuit.

Notwithstanding the Company's right to appeal, given the arbitrator's decision, the Company recorded an \$11,282 expense provision for this matter in the quarter ending September 30, 2015. The provision is subject to adjustment based on the ultimate outcome of the Company's appeal. If it is ultimately determined that money is owed following the full appellate process in federal court, the Company intends to fund any amounts to be paid from cash on hand.

With regard to Barranco II, the Hawai'i district court, on March 17, 2014, denied the Company's motion to dismiss and its motion to transfer venue to South Carolina. However, the Hawai'i court did dismiss Count II in plaintiff's complaint alleging breach of the employment agreement. The Company filed an answer to the complaint in the Hawai'i district court on March 31, 2014, and the parties have since exchanged discovery. On November 19, 2014, the Company filed a motion for summary judgment on all claims which was heard on January 20, 2015. On January 30, 2015, the court entered an Order Granting in Part and Denying in Part the Company's motion for summary judgment. The Order narrowed the plaintiff's claim for breach of contract and dismissed the plaintiff's claims for fraud and negligent misrepresentation. As a result, Messrs. Reichental and Gregoire were dismissed from the lawsuit. The case was previously scheduled for trial on April 21, 2015, but has now been continued to May 17, 2016. The Company believes the claims alleged in the lawsuit are without merit and intends to defend itself vigorously.

The Company is involved in various other legal matters incidental to its business. Although the Company cannot predict the results of litigation with certainty, the Company believes that the disposition of these legal matters will not have a material adverse effect on its consolidated results of operations or consolidated financial position.

#### Note 23 Accumulated Other Comprehensive Income (Loss)

The changes in the balances of accumulated other comprehensive income (loss) by component are as follows:

(in thousands)	Foreign currency translation adjustment	Defined benefit pension plan	Total
Balance at December 31, 2013	\$ 6,865	\$ (1,076)	\$ 5,789
Other comprehensive loss	(29,060)	(1,135)	(30,195)
Balance at December 31, 2014	(22,195)	(2,211)	(24,406)
Other comprehensive loss	(15,480)	338	(15,142)
Balance at December 31, 2015	\$ (37,675)	\$ (1,873)	\$ (39,548)

The amounts presented above are in other comprehensive income (loss) and are net of taxes. For additional information about foreign currency translation, see Note 10 to the Consolidated Financial Statements. For additional information about the pension plan, see Note 15 to the Consolidated Financial Statements.

## Note 24 Selected Quarterly Financial Data (unaudited)

The following tables set forth unaudited selected quarterly financial data:

(in thousands, except per share amounts)	2015			
	Quarter Ended			
	December 31	September 30	June 30	March 31
Consolidated revenue	\$ 183,363	\$ 151,574	\$ 170,504	\$ 160,722
Gross profit	60,160	71,038	81,627	78,984
Total operating expenses	626,081	105,675	105,469	96,508
Loss from operations (a)	(565,921)	(34,637)	(23,842)	(17,524)
Provision (benefit) for income taxes	29,535	(3,524)	(10,096)	(6,943)
Net income attributable to 3D Systems	(596,366)	(32,249)	(13,696)	(13,181)
Basic and diluted net loss per share	\$ (5.32)	\$ (0.29)	\$ (0.12)	\$ (0.12)
	2014			
	Quarter Ended			
	December 31	September 30	June 30	March 31
(in thousands, except per share amounts)				
Consolidated revenue	\$ 187,438	\$ 166,944	\$ 151,512	\$ 147,758
Gross profit	89,766	79,798	72,398	75,472
Total operating expenses	85,538	71,590	68,036	65,955
Income from operations	4,228	8,208	4,362	9,517
Provision for income taxes	75	1,113	694	3,559
Net income attributable to 3D Systems	1,551	3,084	2,125	4,877
Basic and diluted net income per share	\$ 0.01	\$ 0.03	\$ 0.02	\$ 0.05

(in thousands, except per share amounts)	2013			
	Quarter Ended			
	December 31	September 30	June 30	March 31
Consolidated revenue	\$ 154,817	\$ 135,717	\$ 120,787	\$ 102,079
Gross profit	80,097	71,437	62,583	53,477
Total operating expenses	62,121	42,867	45,787	35,958
Income from operations	17,976	28,570	16,796	17,519
Provision for income taxes	5,248	8,279	4,791	1,569
Net income attributable to 3D Systems	11,224	17,640	9,343	5,883
Basic and diluted net income per share	\$ 0.11	\$ 0.17	\$ 0.10	\$ 0.06

(a) For the quarter ended December 31, 2015, loss from operations includes \$443,659 of impairment charges related to goodwill and \$93,520 of impairment charges related to other intangible assets. In addition, the Company recognized cash and non-cash charges related to the end of life of the Cube printer and shift from consumer products and services, which totaled \$8,771 and \$18,619, respectively. See Notes 2, 4, 6 and 7 to the Consolidated Financial Statements.

The sum of per share amounts for each of the quarterly periods presented does not necessarily equal the total presented for the year because each quarterly amount is independently calculated at the end of each period based on the net income available to common stockholders for such period and the weighted average shares of outstanding common stock for such period.

#### Note 25 Subsequent Events

On January 21, 2016, the Board of Directors of 3D Systems Corporation (the "Corporation") approved a Consulting Agreement (the "Consulting Agreement") between the Corporation and ECG Ventures, Inc., a consulting company owned by Thomas W. Erickson, a director of the Corporation. The Consulting Agreement provides that Mr. Erickson will provide strategic and management consulting services to the Corporation in exchange for \$75 a month plus reimbursement of expenses. Mr. Erickson was awarded 25 shares of restricted stock with a vesting date of December 31, 2016. The Consulting Agreement will continue until thirty days after the start date of a permanent Chief Executive Officer.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and Board of Directors of

3D Systems Corporation  
Rock Hill, South Carolina

The audits referred to in our report dated March 14, 2016, relating to the Consolidated Financial Statements of 3D Systems Corporation for the years ended December 31, 2015, 2014 and 2013, which is contained in Item 8 of the Form 10 K, also included the audit of the financial statement schedule listed in the accompanying index. This financial statement schedule is the responsibility of the Company's management. Our responsibility is to express an opinion on the financial statement schedule based upon our audits.

In our opinion, the financial statement schedule, when considered in relation to the basic Consolidated Financial Statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

/s/ BDO USA, LLP

BDO USA, LLP  
Charlotte, North Carolina  
March 14, 2016

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## SCHEDULE II

3D Systems Corporation  
Valuation and Qualifying Accounts  
Years ended December 31, 2015, 2014 and 2013

Year Ended	Item	Balance at beginning of year	Additions charged to expense	Other	Balance at end of year
2015	Allowance for doubtful accounts	\$ 10,300	\$ 3,766	\$ 73	\$ 14,139
2014	Allowance for doubtful accounts	8,133	8,699	(6,532)	10,300
2013	Allowance for doubtful accounts	4,317	4,961	(1,145)	8,133
2015	Deferred income tax asset valuation allowance	\$ —	\$ 107,312	\$ —	\$ 107,312
2014	Deferred income tax asset valuation allowance	—	—	—	—
2013	Deferred income tax asset valuation allowance	—	—	—	—

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