

BRUKER CORP  
Form 10-K  
March 16, 2018

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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**Form 10-K**

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

**For the fiscal year ended December 31, 2017**

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

**Commission File Number 000-30833**

**BRUKER CORPORATION**

(Exact name of registrant as specified in its charter)

**Delaware**

(State or other jurisdiction of  
Incorporation or organization)

**04-3110160**

(I.R.S. Employer Identification No.)

**40 Manning Road, Billerica, MA**  
(Address of principal executive offices)

**01821**  
(Zip Code)

Registrant's telephone number, including area code: **(978) 663-3660**

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

<b>Title of Each Class</b>	<b>Name of Each Exchange on Which Registered</b>
Common Stock, \$0.01 par value per share	The Nasdaq Global Select Market

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

**None**

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

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 o No ý

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

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of the 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, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

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

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

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

The aggregate market value of the voting and non-voting stock held by non-affiliates of the registrant as of June 30, 2017 (the last business day of the registrant's most recently completed second fiscal quarter) was \$2,954,754,499, based on the reported last sale price on the Nasdaq Global Select Market. This amount excludes an aggregate of 56,475,932 shares of common stock held by officers and directors and each person known by the registrant to own 10% or more of the outstanding common stock of the registrant as of June 30, 2017. Exclusion of shares held by any person should not be construed to indicate that such person possesses the power, direct or indirect, to direct or cause the direction of management or policies of the registrant, or that such person is controlled by or under common control with the registrant. The number of shares of the registrant's common stock outstanding as of March 12, 2018 was 156,006,589.

### DOCUMENTS INCORPORATED BY REFERENCE

Portions of the information required by Part III of this report (Items 10, 11, 12, 13 and 14) are incorporated by reference from the registrant's definitive Proxy Statement for its 2018 Annual Meeting of Stockholders to be filed within 120 days of the close of the registrant's fiscal year.

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Any statements contained in this Annual Report on Form 10-K that are not statements of historical fact may be deemed to be forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934. Without limiting the foregoing, the words "believes, anticipates, plans, expects, seeks, estimates, should" and similar expressions are intended to identify forward-looking statements. Any forward-looking statements contained herein are based on current expectations, but are subject to a number of risks and uncertainties. The factors that could cause actual future results to differ materially from current expectations include, but are not limited to, risks and uncertainties related to adverse changes in the economic and political conditions in the countries in which we operate, the integration of businesses we have acquired or may acquire in the future, our restructuring and cost-control initiatives, changing technologies, product development and market acceptance of our products, the cost and pricing of our products, manufacturing and outsourcing, competition, dependence on collaborative partners, key suppliers and third party distributors, capital spending and government funding policies, changes in governmental regulations, intellectual property

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rights, litigation, exposure to foreign currency fluctuations, our ability to service our debt obligations and fund our anticipated cash needs and other factors. Many of these factors are described in more detail in this Annual Report on Form 10-K under Item 1A. "Risk Factors" and from time to time in other filings we may make with the Securities and Exchange Commission. While the Company may elect to update forward-looking statements in the future, it specifically disclaims any obligation to do so, even if the Company's estimates change, and readers should not rely on those forward-looking statements as representing the Company's views as of any date subsequent to the date of the filing of this report.

References to "we," "us," "our," "management" or the "Company" refer to Bruker Corporation and, in some cases, its subsidiaries, as well as all predecessor entities.

Our principal executive offices are located at 40 Manning Road, Billerica, MA 01821, and our telephone number is (978) 663-3660. Information about Bruker Corporation is available at [www.bruker.com](http://www.bruker.com). The information on our website is not incorporated by reference into and does not form a part of this report. All trademarks, trade names or copyrights referred to in this report are the property of their respective owners.

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**PART I**

**ITEM 1 BUSINESS**

**Our Business**

We are a developer, manufacturer and distributor of high-performance scientific instruments and analytical and diagnostic solutions that enable our customers to explore life and materials at microscopic, molecular and cellular levels. Many of our products are used to detect, measure and visualize structural characteristics of chemical, biological and industrial material samples. Our products address the rapidly evolving needs of a diverse array of customers in life science research, pharmaceuticals, biotechnology, applied markets, cell biology, clinical research, microbiology, in-vitro diagnostics, nanotechnology and materials science research. Our technology platforms include magnetic resonance technologies, mass spectrometry technologies, gas and liquid chromatography triple quadrupole mass spectrometry technologies, X-ray technologies, spark-optical emission spectroscopy, atomic force microscopy, stylus and optical metrology technology, fluorescence optical microscopy and infrared and Raman molecular spectroscopy technologies. We also develop, manufacture and distribute a broad range of field analytical systems for chemical, biological, radiological, nuclear and explosives, or CBRNE, detection. We also develop, manufacture and market high and low temperature superconducting materials and devices based primarily on metallic low temperature superconductors. Our corporate headquarters are located in Billerica, Massachusetts. We maintain major technical and manufacturing centers in Europe and North America, and we have sales offices located throughout the world.

**Business Segments**

We have two reportable segments, *Bruker Scientific Instruments (BSI)*, which represented approximately 90% of our revenues during the year ended December 31, 2017, and *Bruker Energy & Supercon Technologies (BEST)*, which represented the remainder of our revenues. Within BSI, we are organized into three operating segments: the Bruker BioSpin Group, the Bruker CALID Group and the Bruker Nano Group. For financial reporting purposes, the Bruker BioSpin, Bruker CALID and Bruker Nano operating segments are aggregated into the BSI reportable segment because each has similar economic characteristics, production processes, service offerings, types and classes of customers, methods of distribution and regulatory environments.

***BSI Segment***

*Bruker BioSpin Group*

The Bruker BioSpin Group comprises the Bruker Magnetic Resonance, Applied Industrial and Clinical, Preclinical Imaging and Service and Lifecycle Support Divisions and designs, manufactures and distributes enabling life science tools based on magnetic resonance technology. Magnetic resonance is a natural phenomenon occurring when a molecule placed in a magnetic field gives off a signature radio frequency. The signature radio frequency is characteristic of the particular molecule and provides a multitude of precise chemical and structural information. Depending on the intended application, we market and sell to our customers a NMR system or an EPR system (each as defined below).

Bruker BioSpin also manufactures and sells single and multiple modality systems using MRI, PET, SPECT, CT and MPI (each as defined below). Bruker BioSpin's products, which have particular application in structural proteomics, drug discovery, pharmaceutical and biotechnology research and production, and food and materials science fields, provide customers with the ability to determine the structure, dynamics, and function of specific molecules, such as proteins, and to characterize and determine the composition of mixtures.

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The majority of Bruker BioSpin's revenues are generated by academic and government research customers. Other customers include pharmaceutical and biotechnology companies; chemical, food and beverage, clinical and polymer companies; and nonprofit laboratories.

During 2017, we launched a number of new products and technologies, including the next generation of NMR electronics consoles, new software and hardware for enhanced workflow solutions for NMR spectroscopy research and analysis and a new solution for the quantification of metabolites in urine using NMR.

Bruker BioSpin Group's instruments are based on the following technology platforms:

**NMR** Nuclear magnetic resonance;

**EPR** Electron paramagnetic resonance;

**MRI** Magnetic resonance imaging;

**MPI** Magnetic Particle Imaging;

**PET** Positron Emission Tomography;

**SPECT** Single Photon Emission Tomography; and

**CT** Computed Tomography.

**NMR** is a qualitative and quantitative analytical technique that is used to determine the molecular structure and purity of a sample. Molecules are placed in a magnetic field and give off a radio frequency signature that is recorded by a sensitive detector. Analysis software helps to determine the molecular structure of the sample. The NMR technique is used in academia, pharmaceutical, biotechnology, food and beverage and clinical companies, and by other industrial users in life science and material science research.

**EPR** is a process of absorption of microwave radiation by paramagnetic ions or molecules with at least one unpaired electron that spins in the presence of a static magnetic field. EPR detects unpaired electrons unambiguously, whereas other techniques can only provide indirect evidence of their presence. In addition, EPR can identify the paramagnetic species that are detected, which present information on the molecular structure near the unpaired electron and give insight into dynamic processes such as molecular motions or fluidity. Our EPR instruments are used for a wide range of applications, including advanced materials research, materials analysis and quality control.

**MRI** is a process of creating an image from the manipulation of hydrogen atoms in a magnetic field. In the presence of an external magnetic field, atoms will align with or against the external magnetic field. Application of a radio frequency causes the atoms to jump between high and low energy states. MRI and magnetic resonance spectroscopy, or MRS, include many methods including diffusion-weighted, perfusion-weighted, molecular imaging and contrast-enhance. MRI offers high resolution morphologic information, as well as functional, metabolic or molecular information. Customers use our MRI systems in pharmaceutical research, including metabolomics, to study a number of diseases, including diabetes, neurology, oncology and cardiovascular disorders.

**MPI** is a process of creating an image from magnetic particles administered to the body of an animal. The magnetic particles are manipulated in a combination of oscillating magnetic fields exhibiting a field free zone. The response of the particles allows a real time 3D data set acquisition of the whole body of an animal, showing the contrast agent distributing in and flowing through the body. This imaging modality is used to detect cardiovascular disorders.

**PET** is a process of creating an image from positrons after administration of a positron emitting radionuclide to the body of an animal. Annihilation of the positron produces two photons which show an angle of 180° between them, distinguishing these photons from photons originating from other



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sources. The PET tracer enriches in certain regions of interest within the body and gains molecular information from the animal *in vivo*. This has widespread applications, most importantly for oncology, inflammation, neurology and cardiovascular disorders, as well as metabolic disease, drug discovery and bone disease.

**SPECT** uses a contrast agent containing radionuclides which directly emit single photons. The contrast agent enriches in certain parts of the body of an animal and generates images of the radionuclide distribution in the body. SPECT has widespread application in animal investigations *in vivo*, most importantly in oncology, neurology and cardiovascular disorders.

**CT** is a technology based on X-rays which are used to generate a complete 3D data set. The most important applications are tissue sample analysis or non-invasive *in vivo* animal imaging. CT offers the highest spatial resolution of all preclinical imaging modalities and is especially useful to generate morphological information about the object or animal under investigation. CT is being used in a wide range of preclinical investigations such as bone-orthopedics, cardiovascular, pulmonary, oncology, metabolism and others.

*Bruker CALID Group*

The Bruker CALID Group comprises the Bruker Daltonics, Bruker Detection and Bruker Optics Divisions. The Bruker Daltonics Division primarily designs, manufactures and distributes life science mass spectrometry, or MS, instruments that can be integrated and used along with other sample preparation or chromatography instruments. These products are used in research, pharmaceutical and biotechnology development and clinical diagnostic settings. Mass spectrometers are sophisticated devices that measure the mass or weight of a molecule and can provide accurate information on the identity, quantity and primary structure of molecules. Mass spectrometry based solutions often combine advanced mass spectrometry instrumentation, automated sampling and sample preparation robots, reagent kits and other disposable products used in conducting tests, or assays, and bioinformatics software. We offer mass spectrometry systems and integrated solutions for applications in multiple existing and emerging life science markets and chemical and applied markets, including expression proteomics, clinical proteomics, metabolic and peptide biomarker profiling, drug discovery and development, molecular diagnostics research and molecular and systems biology, as well as basic molecular medicine research and clinical microbiology (for *in vitro* diagnostic (IVD) use only in certain countries and certain configurations).

The Bruker Detection Division supplies various systems based on mass spectrometry, ion mobility spectrometry, infrared spectroscopy and radiological/nuclear detectors for Chemical, Biological, Radiological, Nuclear and Explosive (CBRNE) detection in emergency response, homeland security and defense applications.

The Bruker Optics Division manufactures and distributes research, analytical and process analysis instruments and solutions based on infrared and Raman molecular spectroscopy technologies. These products are utilized in industry, government and academia for a wide range of applications and solutions for life science, pharmaceutical, food and agricultural analysis, quality control and process analysis applications. Infrared and Raman spectroscopy are widely used in both research and industry as simple, rapid, nondestructive and reliable techniques for applications ranging from basic sample identification and quality control to advanced research. The Bruker Optics Division also utilizes Fourier transform and dispersive Raman measurement techniques on an extensive range of laboratory and process spectrometers. The Bruker Optics Division's products are complemented by a wide range of sampling accessories and techniques, which include, among others, microanalysis and high-throughput screening to help users find suitable solutions to analyze their samples effectively.

Customers of our Bruker CALID Group include pharmaceutical, biotechnology and diagnostics companies, contract research organizations, academic institutions, medical schools, nonprofit or



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for-profit forensics, agriculture, food and beverage safety, environmental and clinical microbiology laboratories, hospitals and government departments and agencies.

During 2017, we launched a number of new mass spectrometry based product solutions, including the timsTOFPro™ for PASEF mass spectrometry, which uses proprietary trapped ion mobility spectrometry. We introduced major innovations for strain typing, hospital hygiene and infection control with the IR Biotyper™. We also expanded the assay and consumable kits we offer to further enhance the MALDI Biotyper™ platform. Software releases accompanied our instrument solutions launches in 2017.

The Bruker CALID Group's instruments are based on the following technology platforms:

**MALDI-TOF** Matrix-assisted laser desorption ionization time-of-flight mass spectrometry, including tandem time-of-flight systems (MALDI-TOF/TOF);

**ESI-TOF** Electrospray ionization time-of-flight spectrometry, including tandem mass spectrometry systems based on ESI-quadrupole-TOF mass spectrometry (ESI-Q-q-TOF);

**FTMS** Fourier transform mass spectrometry, including hybrid systems with a quadrupole front end (Q-q-FTMS);

**ITMS** Ion trap mass spectrometry;

**GC-MS** Gas chromatography-mass spectrometry systems utilizing triple-quadrupole time-of-flight mass spectrometry;

**LC-MS** Liquid chromatography-mass spectrometry systems utilizing triple-quadrupole time-of flight mass spectrometry;

**FT-IR** Fourier transform-infrared spectroscopy;

**NIR** Near-infrared spectroscopy; and

**Raman** Raman spectroscopy.

**MALDI-TOF** mass spectrometers utilize an ionization process to analyze solid samples using a laser that combines high sample throughput with high mass range and sensitivity. Our MALDI-TOF mass spectrometers are particularly useful for applications in clinical diagnostics, environmental and taxonomical research and food processing and quality control. Specific applications include: oligonucleotide and synthetic polymer analysis; protein identification and quantification; peptide de novo sequencing; determination of post-translational modifications of proteins; interaction proteomics and protein function analysis; drug discovery and development; and fast body fluid and tissue peptide or protein biomarker detection. MALDI mass spectrometry allows users to classify and identify microorganisms quickly and reliably with minimal sample preparation efforts and life cycle costs. Our MALDI Biotyper solution, which serves the clinical microbiology market, enables identification, taxonomical classification or dereplication of microorganisms like bacteria, yeasts and fungi.

**ESI-TOF** mass spectrometers utilize an electrospray ionization process to analyze liquid samples. This ionization process, which does not dissociate the molecules, allows for rapid data acquisition and analysis of large biological molecules. ESI-TOF mass spectrometers are particularly useful for: identification, protein analysis and functional complex analysis in proteomics and protein function; molecular identification in metabolomics, natural product and drug metabolite analysis; combinatorial chemistry high throughput screening; and fast liquid chromatography mass spectrometry, or liquid chromatography mass spectrometry (LC-MS), in drug discovery and development.

**FTMS** systems utilize high-field superconducting magnets to offer the highest resolution, selectivity, and mass accuracy currently achievable in mass spectrometry. Our systems based on this technology often eliminate the need for time-consuming separation techniques in complex mixture analyses. In



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addition, our systems can fragment molecular ions to perform exact mass analysis on all fragments to determine molecular structure. FTMS systems are particularly useful for: the study of structure and function of biomolecules, including proteins, DNA and natural products; complex mixture analysis including body fluids or combinatorial libraries; high-throughput proteomics and metabolomics; and top-down proteomics of intact proteins without the need for enzymatic digestion of the proteins prior to analysis. We offer next-generation hybrid FTMS systems that combine a traditional external quadrupole mass selector and hexapole collision cell with a high-performance FTMS for further ion dissociation, top-down proteomics tools and ultra-high resolution detection.

**ITMS** systems collect all ions simultaneously, which improves sensitivity relative to previous quadrupole mass spectrometers. Ion trap mass spectrometers are particularly useful for sequencing and identification based on peptide structural analysis, quantitative liquid chromatography mass spectrometry, identification of combinatorial libraries and generally enhancing the speed and efficiency of the drug discovery and development process.

**GC-MS** systems combine the features of gas chromatography and mass spectrometry to identify different substances within a test sample. The two components, used together, allow for a finer degree of substance identification than either system when used separately. The result is a quantitative analysis of the components and the mass spectrum of each component. Our GC-MS systems are available in triple quadrupole configurations and can be configured with a variety of options to suit a range of applications. Our GC-MS systems have applications in food and product safety, forensics, clinical and toxicology testing and environmental, pharmaceutical and chemical analysis.

**LC-MS** systems combine the separation features of liquid chromatography with the molecular identification features of mass spectrometry to separate, identify and quantify different substances within a test sample. As a complementary technique to GC-MS, which analyzes volatile compounds, LC-MS can be used to analyze a wide range of non-volatile compounds in complex samples. Our LC-MS systems are available in a wide range of configurations to suit a user's specific needs. Although primarily used for life science applications, our LC-MS systems also have applications in food and product safety, forensics and clinical and toxicology testing, as well as environmental, pharmaceutical and chemical analysis.

**FT-IR** spectrometers utilize the mid- and far-infrared regions of the electromagnetic spectrum. Our FT-IR systems are commonly used for various quality control and materials research applications.

**NIR** spectrometers utilize the near-infrared region of the electromagnetic spectrum. Our NIR instruments are primarily used for quality and process control applications in the pharmaceutical, food and agriculture and chemical industries. The pharmaceutical industry is the leading user of NIR instruments, and applications include quality control, research and development and process analytical technology. The food and agricultural industry is the second largest user of NIR instrumentation, with an increasing demand for food, forage and beverage quality control.

**Raman** spectroscopy provides information on molecular structure. The mechanism of Raman scattering is different from that of infrared absorption, in that Raman and IR spectra provide complementary information. Raman is useful for the identification of both organic and inorganic compounds and functional groups. It is a nondestructive technique, and can be used for the analysis of both liquids and solids. Raman is well suited for use in the polymer and pharmaceutical industries, and has applications in the metals, electronics and semiconductors industries. The technique also has applications in life sciences, forensics and artwork authentication.

Additionally, the Bruker Detection Division offers a wide range of portable analytical and bioanalytical detection systems and related products for CBRNE detection. Our customers use these devices for nuclear, biological agent and chemical agent defense applications, anti-terrorism, law enforcement and process and facilities monitoring. Our CBRNE detection products use many of the

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same technology platforms as our life science products, as well as additional technologies, including infrared stand-off detection and ion mobility spectrometry, for handheld chemical detectors. We also provide integrated, comprehensive detection suites that include our multiple detection systems, consumables, training and simulators.

#### *Bruker Nano Group*

The Bruker Nano Group comprises the Bruker AXS, Bruker Nano Surfaces, Bruker Nano Analytics and Bruker Semiconductor Divisions. The Bruker AXS Division designs, manufactures and distributes advanced X-ray instruments that use electromagnetic radiation with extremely short wavelengths to determine the characteristics of matter and the three-dimensional structure of molecules. This includes a product portfolio of instruments based on X-ray fluorescence spectroscopy (XRF), X-ray diffraction (XRD) and X-ray micro computed tomography ( $\mu$ CT), as well as spark optical emission spectroscopy systems (S-OES) used to analyze the concentration of elements in metallic samples.

Bruker Nano Surfaces Division's products include atomic force microscopy instrumentation (AFM). Such instruments provide atomic or near atomic resolution of surface topography and mechanical, electrical and chemical information using nano scale probes. In addition, the Bruker Nano Surfaces Division provides advanced fluorescence optical microscopy instruments for multi-photon, multipoint scanning confocal and high-speed 3D super-resolution studies in life science applications. The Bruker Nano Surfaces Division also provides non-contact nanometer resolution topography through white light interferometry and stylus profilometry.

The Bruker Nano Analytics Division manufactures and markets analytical tools for electron microscopes, including energy-dispersive X-ray spectrometers (EDS), electron backscatter diffraction systems (EBSD) and  $\mu$ CT accessories, as well as mobile and bench-top micro X-ray fluorescence ( $\mu$ XRF), total reflection X-ray fluorescence spectrometers (TXRF) and handheld, portable and mobile X-ray fluorescence (HMP-XRF) spectrometry instruments.

The Bruker Semiconductor Division manufactures and markets X-ray metrology and automated AFM defect-detection equipment for semiconductor process control.

Customers of our Bruker Nano Group include biotechnology and pharmaceutical companies, academic institutions, governmental customers, nanotechnology companies, semiconductor companies, raw material manufacturers, industrial companies and other businesses involved in materials analysis.

During 2017, we launched several new products, including the next generation wavelength dispersive XRF spectrometer and new high performance technology for laboratory macromolecular crystallography. We also released next generation models of several other products, including the EBSD detectors and software.

The Bruker Nano Group's systems are based on the following technology platforms:

**XRD** Polycrystalline X-ray diffraction, often referred to as X-ray diffraction;

**XRF** X-ray fluorescence, also called X-ray spectrometry, including handheld XRF systems;

**SC-XRD** Single crystal X-ray diffraction, often referred to as X-ray crystallography;

**$\mu$ CT** X-ray micro computed tomography;

**EDS** Energy dispersive X-ray spectroscopy on electron microscopes;

**EBSD** Electron backscatter diffraction on electron microscopes;

**S-OES** Spark optical emission spectroscopy;



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**CS/ONH** Combustion analysis for carbon, sulfur, oxygen, nitrogen, and hydrogen in solids;

**AFM** Atomic force microscopy;

**FM** Fluorescence optical microscopy;

**SOM** Stylus and optical metrology; and

**TMT** Tribology and mechanical test systems for analysis of friction and wear.

**XRD** systems investigate polycrystalline samples or thin films with single wavelength X-rays. The atoms in the polycrystalline sample scatter the X-rays to create a unique diffraction pattern recorded by a detector. Computer software processes the pattern and produces a variety of information, including stress, texture, qualitative and quantitative phase composition, crystallite size, percent crystallinity and layer thickness, composition, defects and density of thin films and semiconductor material. Our XRD systems contribute to a reduction in the development cycles for new products in the catalyst, polymer, electronic, optical material and semiconductor industries. Customers also use our XRD systems academic and government research facilities, as well as a variety of other fields, including forensics, art and archaeology.

**XRF** systems determine the elemental composition of a material and provide a full qualitative and quantitative analysis. Our XRF systems direct X-rays at a sample, and the atoms in the sample absorb the X-ray energy. The elements in the sample then emit X-rays that are characteristic for each element. The system collects the X-rays, and the software analyzes the resulting data to determine the elements that are present. Our XRF products provide automated solutions on a turn-key basis for industrial users that require automated, controlled production processes that reduce product and process cost, increase output and improve product quality. Our XRF products cover substantially all of the periodic table and can analyze solid, powder or liquid samples.

**SC-XRD** systems determine the three-dimensional structures of molecules in a chemical, mineral, or biological substance being analyzed. SC-XRD systems have the capability to determine structure in both small chemical molecules and larger biomolecules. SC-XRD systems direct an X-ray beam at a solid, single crystal sample. The atoms in the crystal sample scatter the X-rays to create a precise diffraction pattern recorded by an electronic detector. Software then reconstructs a model of the structure and provides the unique arrangement of the atoms in the sample. This information on the exact arrangement of atoms in the sample is a critical part of molecular analysis and can provide insight into a variety of areas, including how a protein functions or interacts with a second molecule. Our SC-XRD systems are designed for use in the life sciences industry, academic research and a variety of other applications.

**μCT** is X-ray imaging in 3D, by the same method used in hospital CT scans, but on a small scale with massively increased resolution. 3D microscopy allows users to image the internal structure of objects non-destructively on a very fine scale. Bruker μCT is available in a range of easy-to-use desktop instruments, which generate 3D images of the sample's morphology and internal microstructure with resolution down to the sub-micron level. Our μCT systems are used for numerous applications in materials research and in the life sciences industry.

**EDS** systems analyze the chemical composition of materials under investigation in electron microscopes by utilizing the fact that atoms of different chemical elements, when exposed to the high energy electron beam generated by the microscope, irradiate X-rays of different characteristic energy. The evaluation of the energy spectrum collected by our spectrometer allows the determination of the qualitative and quantitative chemical sample composition at the current beam position. EDS systems allow for simultaneous analysis of all elements in the periodic table, beginning with atomic number 4 (beryllium). Our EDS systems are used for a range of applications, including nanotechnology and

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advanced materials research, as well as materials analysis and quality control. Customers for EDS systems include industrial customers, academia and government research facilities.

**EBSD** systems are used to perform quantitative microstructure analysis of crystalline samples in electron microscopes. The microscope's electron beam strikes the tilted sample and diffracted electrons form a pattern on a fluorescent screen. This pattern is characteristic of the crystal structure and orientation of the sample region from which it was generated. It provides the absolute crystal orientation with sub-micron resolution. EBSD can be used to characterize materials with regard to crystal orientation, texture, stress, strain and grain size. EBSD also allows the identification of crystalline phases and their distribution, and is applied to many industries such as metals processing, aerospace, automotive, microelectronics and earth sciences.

**S-OES** instruments are used for analyzing metals. S-OES covers a broad range of applications for metals analysis from pure metals trace analysis to high alloyed grades, and allow for analysis of a complete range of relevant elements simultaneously. S-OES instruments pass an electric spark onto a sample, which burns the surface of the sample and causes atoms to jump to a higher orbit. Our detectors quantify the light emitted by these atoms and help our customers to determine the elemental composition of the material. This technique is widely used in production control laboratories of foundries and steel mills.

**CS/ONH** carrier gas systems incorporate a furnace and infrared or thermal conductivity detection to analyze inorganic materials for the determination of carbon, sulfur, nitrogen, oxygen and hydrogen. Combustion and inert gas fusion analyzers are used for applications in metal production and processing, chemicals, ceramics and cement, coal processing, oil refining and semiconductors.

**AFM** systems provide atomic or near-atomic resolution of material surface topography using a nano-scale probe that is brought into light contact with the sample being investigated. In addition to presenting a surface image, AFM can also provide quantitative nano-scale measurements of feature sizes, material properties, electrical information, chemical properties and other sample characteristics. Our AFM systems are used for applications in academic and governmental materials and biological research and semiconductor, data storage hard drive, LED, battery, solar cells, polymers, and pharmaceutical product development and manufacturing.

**FM** products use fluorescence microscopy to determine the structure and composition of life science samples. Our products include two-photon microscopes, multipoint scanning confocal microscopes, laser illumination sources, photoactivation, photostimulation and photoablation accessories and synchronization and analysis software. Two-photon microscopes allow imaging deep into tissues and cells and are used widely in neuroscience. Multipoint scanning confocal systems allow live cell imaging with rapid acquisition of images for structural and composition analysis. We also offer super-resolution and single-molecule localization microscopy products which can break the optical diffraction limit by an order of magnitude.

**SOM** systems provide atomic or near-atomic two dimensional and three dimensional surface resolution using white light interferometry, confocal optical and stylus profilometry methods. SOM profilers range from low-cost manual tools for single measurements to advanced, highly automated systems for production line quality assurance and quality control applications where the combination of throughput, repeatability and reproducibility is essential. SOM profilers support a range of applications in research, product development, tribology, quality control and failure analysis related to materials and machining in the automotive, orthopedic, ophthalmic, high brightness LED, semiconductor, data storage, optics and other markets.

**TMT** systems provide a platform for all types of common mechanical, friction, durability, scratch and indentation tests for a wide spectrum of materials. Tribology systems are utilized for both academic research of the fundamental material properties and industrial applications in the semiconductor, aerospace, petroleum, automotive and other industries.

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***BEST Segment***

BEST designs, manufactures and distributes superconducting materials, primarily metallic low temperature superconductors, for use in magnetic resonance imaging, nuclear magnetic resonance, fusion energy research and other applications. BEST also develops, manufactures and markets ceramic, second generation high temperature superconductors for energy technology and magnet research applications. Additionally, BEST develops, manufactures and markets sophisticated devices and complex tools based primarily on metallic low temperature superconductors that have applications in "big science" research, including radio frequency accelerator cavities and modules, power couplers and linear accelerators. BEST also manufactures and sells non-superconducting high technology tools, such as synchrotron and beamline instrumentation, principally to customers engaged in materials research and "big science" research projects.

**Sales and Marketing**

We maintain direct sales forces throughout North America, Europe, Russia, China, Japan, and elsewhere in the Asia Pacific region. We also utilize indirect sales channels to reach customers. We have various international distributors, independent sales representatives and various other representatives in parts of Asia, Latin America, Africa, the Middle East and Eastern Europe. These entities augment our direct sales force and provide coverage in areas where we do not have direct sales personnel. In addition, we have adopted a distribution business model in which we engage in strategic distribution alliances with other companies to address certain market segments. The sales cycle for our products is dependent on the size and complexity of the system and budgeting cycles of our customers. Our sales cycle is typically three to twenty-four months for academic and high-end research products and two weeks to six months for industrial products. The sales cycle of our low temperature superconducting materials is typically four to twelve months, with cycles of certain high-end materials exceeding one year. Sales of our high-end NMR and superconducting devices typically take more than one year and certain large, complex contracts can take more than two years to complete.

We have well-equipped applications and demonstration facilities and qualified application personnel who assist customers and provide product demonstrations in specific application areas. We maintain our primary demonstration facilities at our production facilities, as well as in other key market locations.

**Seasonal Nature of Business**

Historically we have higher levels of revenue in the fourth quarter and lower levels of revenues in the first quarter of the year, which we believe is influenced by our customers' budgeting cycles.

**Major Customers**

The Company has a broad and diversified customer base and we do not depend on any single customer. No single customer accounted for more than 10% of revenue in any of the last three fiscal years or more than 10% of accounts receivable as of December 31, 2017 or 2016.

**Competition**

Our existing products and solutions and any products and solutions that we develop in the future may compete in multiple, highly competitive markets. In addition, there has been a trend towards consolidation in our industries and many of our competitors have substantially greater financial, technical and marketing resources than we do. Our competitors may succeed in developing and offering products that could render our products or those of our strategic partners obsolete or noncompetitive. Our competitors may also have cost and price advantages based upon the value of their currencies compared with the U.S. Dollar or Euro. In addition, many of these competitors have significantly more



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experience in the life sciences, chemical and materials markets. Our ability to compete successfully will depend on our ability to develop proprietary products that reach our target markets in a timely manner and are technologically superior to and/or less expensive, or more cost effective, than products marketed by our competitors. Current competitors or other companies may possess or develop technologies and products that are more effective than ours. Our technologies and products may be rendered obsolete or uneconomical by technological advances or by entirely different approaches developed by one or more of our competitors.

We also compete with companies that provide analytical or automation tools based on technologies other than those we offer. These technologies may prove to be more successful in meeting demands in the markets that our products and solutions are intended to serve. In addition, other companies may choose to enter our fields in the future. We believe that the principal competitive factors in our markets are technology-based applications expertise, product specifications, functionality, reliability, marketing expertise, distribution capability, proprietary patent portfolios and cost effectiveness.

***BSI Segment***

Bruker BioSpin competes with companies that offer magnetic resonance spectrometers, mainly JEOL and Oxford Instruments. In the field of preclinical imaging, Bruker BioSpin competes with Perkin Elmer, Mediso, Trifoil, MR Solutions and others. Bruker CALID competes with a variety of companies that offer mass spectrometry based systems. Bruker CALID's competitors in the life science markets and chemical and applied markets include Danaher, Agilent, GE-Healthcare, Waters, Thermo Fisher Scientific, Shimadzu, Hitachi and JEOL. In the microbiology market, we compete with Biomerieux. Bruker CALID's CBRNE detection customers are highly fragmented, and we compete with a number of companies in this area, of which the most significant competitor is Smiths Detection. Bruker CALID also competes with a variety of companies that offer molecular spectrometry based systems, including Thermo Fisher Scientific, PerkinElmer, Agilent, Foss, ABB Bomem, Buchi, Shimadzu and Jasco. In addition, there are several smaller companies, specializing in various markets, with which the Bruker CALID Group frequently competes. Bruker Nano competes with companies that offer analytical X-ray solutions, OES systems, AFM and SOM systems and optical fluorescence systems, primarily Rigaku, Oxford Instruments, Agilent, Thermo Fisher Scientific, Ametek's Spectro and Edax divisions, PANalytical, Olympus, Nikon, Zeiss and Danaher's Leica business.

***BEST Segment***

BEST competes with Luvata and Jastec Co., Ltd. in low temperature superconducting materials. In addition, BEST competes with Fujikura, SuperPower (a Furukawa company), Superconductor Technologies Inc. and SuNam Co., Ltd. in the market for second generation high temperature superconducting materials. BEST further competes with Zanon, Mitsubishi Electric and AES in the development and supply of accelerator cavities, with Thales, Toshiba and CPI International in the development and supply of radio frequency couplers, with Mitsubishi Heavy Industries in the development and supply of superconducting accelerator modules and with AES and Thales for electron linear accelerators.

**Manufacturing and Supplies**

Several of our manufacturing facilities are certified under ISO 9001:2008 and ISO 13485, an international quality standard. We manufacture and test our magnetic resonance products at our facilities in Faellanden, Switzerland; Wissembourg, France; and Karlsruhe, Germany. We manufacture and test our preclinical imaging products at our facilities in Ettlingen, Germany; Wissembourg, France; Kontich, Belgium; and Faellanden, Switzerland. We manufacture and test our mass spectrometry products, including CBRNE detection products, at our facilities in Bremen, Germany and Leipzig, Germany. We principally manufacture and test our molecular spectroscopy products at our facilities in

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Ettlingen, Germany. We manufacture and test our X-ray, OES and AFM products at our facilities in Karlsruhe, Germany; Berlin, Germany; Madison, Wisconsin, U.S.A.; Santa Barbara, California, U.S.A.; Kennewick, Washington, U.S.A.; and Migdal Ha'Emek, Israel. We manufacture and test the majority of our energy and superconducting products at our facilities in Hanau, Germany; Bergisch Gladbach, Germany; Perth, Scotland and Carteret, New Jersey, U.S.A. Manufacturing processes at our facilities in Europe, Israel and California, U.S.A. include all phases of manufacturing, such as machining, fabrication, subassembly, system assembly, and final testing. Our other facilities primarily perform high-level assembly, system integration and final testing. We typically manufacture critical components in-house to ensure key competence and outsource to third party manufacturers non critical components.

We purchase materials and components from various suppliers that are either standard products or built to our specifications. We obtain some of the components included in our products from a limited group of suppliers or from a single-source supplier for items such as charge coupled device area detectors, X-ray tubes, robotics, infrared optics and others. Bruker AXS has an ongoing collaboration and joint development project with the Siemens Medical Solutions Vacuum Technology Division in Germany for the development of X-ray tubes. Some Bruker entities, specifically Bruker Nano GmbH and Bruker AXS Handheld Inc., presently procure key X-ray detector chips and certain OES optical detectors and miniaturized X-ray sources from single-source suppliers. In addition, BEST sources niobium titanium and other niobium products from a single supplier.

**Research and Development**

We commit substantial capital and resources to internal and collaborative research and development projects in order to provide innovative products and solutions to our customers. We conduct research primarily to enhance system performance and improve the reliability of existing products, and to develop revolutionary new products and solutions. We expensed \$162.7 million (9.2% of revenue), \$149.0 million (9.2% of revenue) and \$145.7 million (9.0% of revenue) in 2017, 2016 and 2015, respectively, for research and development purposes. Our research and development efforts are conducted for the relevant products within each of the operating segments, as well as in collaboration with others on areas such as microfluidics, automation and workflow management software. We have been the recipient of government grants from Germany and the United States for various projects related to early-stage research and development. We have generally retained, at a minimum, non-exclusive rights to any items or enhancements we develop under these grants. The German government requires that we use and market technology developed under grants in order to retain our rights to the technology. We have also accepted some sponsored research contracts from private sources.

***BSI Segment***

The research and development performed in the BSI Segment is primarily conducted at our facilities in Bremen, Ettlingen, Karlsruhe and Leipzig, Germany; Faellanden, Switzerland; Wissembourg, France; Billerica, Massachusetts, U.S.A.; Madison, Wisconsin, U.S.A.; San Jose and Santa Barbara, California, U.S.A.

The Bruker BioSpin Group maintains technical competencies in core magnetic resonance technologies and single- and multimodal imaging technologies and capabilities, including NMR, EPR, MRI, MPI, PET, CT and OI. Recent projects include the development of solid state dynamic nuclear polarization technologies, an ongoing development that enables gains in sensitivity for NMR, high field EPR instrumentation with dedicated cryogen free magnets, high field magnet technology for preclinical MRI, basic NMR research and quadrupole tuned cryoprobes for biological research, as well as MPI imaging for preclinical application.

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The Bruker CALID Group maintains technical competencies in core mass spectrometry technologies and capabilities, including: MALDI, ESI and EI/CI ion source, TOF, TOF/TOF, ion traps, FTMS, quadrupole and IMS analyzers and bioinformatics. Recent projects include the rapifleX MALDI Tissuetyper, which is Bruker Daltonics' high-throughput MALDI imaging solution that provides enhanced high-resolution molecular information and distribution in tissues. Another recent project includes the innovative timsTOF mass spectrometer for separation and analysis of unresolved compounds and conformations. The Bruker CALID Group also maintains technical competencies in core vibrational spectroscopy technologies and capabilities, including FT-IR, NIR and Raman.

The Bruker Nano Group maintains technical competencies in core X-ray technologies and capabilities, including detectors used to sense X-ray and X-ray diffraction patterns, X-ray sources and optics that generate and focus the X-rays, robotics and sample handling equipment that holds and manipulates the experimental material, and software that generates the structural data. Recent projects include refining next-generation high brilliancy optics and microsources, developing new high-power X-ray sources for X-ray diffraction and protein crystallography applications, developing a TXRF system for trace element analysis in semiconductor metrology, developing a new large solid angle, high-resolution, high-throughput energy dispersive X-ray detector for microanalysis, creating a high sensitivity area detector system and developing other solution-based technologies and software applications, including a product for X-ray scattering investigations of protein crystals. The Bruker Nano Group also has competencies in AFM technology, which involve sub-angstrom level position and motion control, as well as sub-pico newton force control. The Bruker Nano Group technologies also include 3D optical inference based microscopy, stylus profilometry, tribology testing, nano-indentation, optical fluorescence two-photon microscopy, multipoint scanning microscopy and high-speed, 3D super-resolution fluorescence microscopy. Recent innovations include elemental analyzer systems for advanced applications and research and simultaneous, all-optical stimulation and imaging platforms for neuroscience applications.

***BEST Segment***

The research and development performed in the BEST Segment is primarily conducted at our facilities in Hanau, Bergisch Gladbach and Alzenau, Germany and Carteret, New Jersey, U.S.A. BEST maintains technical competencies in the production and development of low and high temperature superconducting materials and devices.

**Intellectual Property**

Our intellectual property consists of patents, copyrights, trade secrets, know-how, and trademarks. Protection of our intellectual property is a strategic priority for our businesses because of the length of time and expense associated with bringing new products through the development process and to the marketplace. We have a substantial patent portfolio, and we intend to file additional patent applications as appropriate. We believe our owned and licensed patent portfolio provides us with a competitive advantage. This portfolio permits us to maintain access to a number of key technologies. We license our owned patent rights where appropriate. We intend to enforce our patent rights against infringers, if necessary. The patent positions of life sciences tools companies involve complex legal and factual questions. As a result, we cannot predict the enforceability of our patents with certainty. In addition, we are aware of the existence from time to time of patents in certain countries, which, if valid, could impair our ability to manufacture and sell products in these countries.

We also rely upon trade secrets, know-how, trademarks, copyright protection and licensing to develop and maintain our competitive position. We generally require the execution of confidentiality agreements by our employees, consultants, and other scientific advisors. These agreements provide that all confidential information made known during the course of a relationship with us will be held in

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confidence and used only for our benefit. In addition, these agreements provide that we own all inventions generated during the course of the relationship.

**Government Contracts**

We are a party to various government contracts. Under some of these government contracts, the government may receive license or similar rights to intellectual property developed under the contract. However, under government contracts we enter we generally receive at least non-exclusive rights to any items or technologies we develop. Although we transact business with various government agencies, we believe that no government contract is of such magnitude that a renegotiation of profits or termination of the contract or subcontracts at the election of the government would have a material adverse effect on our financial results.

**Government Regulation**

We are required to comply with federal, state, and local environmental protection regulations. We do not expect this compliance to have a significant impact on our capital spending, earnings or competitive position.

Prior to introducing a product in the United States, our Bruker AXS subsidiary provides notice to the U.S. Food and Drug Administration, or FDA, in the form of a Radiation Safety Initial Product Abbreviated Report, which provides identification information and operating characteristics of the product. If the FDA finds that the report is complete, it provides approval in the form of what is known as an accession number. Bruker AXS may not market a product until it has received an accession number. In addition, Bruker AXS submits an annual report to the FDA that includes the radiation safety history of all products it sells in the United States. Bruker AXS is required to report to the FDA incidents of accidental exposure to radiation arising from the manufacture, testing, or use of any of its products. Bruker AXS also reports installations of its products to state government regulatory agencies responsible for the regulation of radiation emitting devices. For sales in Germany, Bruker AXS registers each system with the local authorities. In some countries where Bruker AXS sells systems, Bruker AXS uses the license we obtained from the federal authorities in Germany to assist it in obtaining a license from the country in which the sale occurs. In addition, as indicated above, we are subject to various other foreign and domestic environmental, health and safety laws and regulations in connection with our operations. Apart from these areas, we are subject to the laws and regulations generally applicable to businesses in the jurisdictions in which we operate.

Our Bruker AXS subsidiary possesses low-level radiation materials licenses from the U.S. Nuclear Regulatory Commission in agreement with the State of Wisconsin for its facility in Madison, Wisconsin; from the local radiation safety authority, Gewerbeaufsichtsamt Karlsruhe, for its facility in Karlsruhe, Germany; and from the local radiation safety authority, Kanagawa Prefecture, for its facility in Yokohama, Japan, as well as from various other countries in which it sells its products. Our Bruker Daltonics subsidiary possesses low-level radiation licenses for facilities in Billerica, Massachusetts and Leipzig, Germany. The U.S. Nuclear Regulatory Commission also has regulations concerning the exposure of our employees to radiation.

Certain of our clinical products are subject to regulation in the United States by the FDA and by similar regulatory bodies in other countries where such products are sold. For example, our MALDI Biotyper CA system is subject to regulation by the FDA and our IVD-CE Certified MALDI BioTyper system is subject to regulation in the European Union under the provisions of Directive 98/79/EC. These, and similar local regulations elsewhere in the world, govern a wide variety of product-related activities, from quality management, design and development to labeling, manufacturing, promotion, sales and distribution. As such, we continually invest in our manufacturing infrastructure to gain and maintain certifications necessary for the relevant level of regulatory clearance.

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**Working Capital Requirements**

There were no credit terms extended to customers that would have a material adverse effect on our working capital.

We recognize revenue from system sales when persuasive evidence of an arrangement exists, the price is fixed or determinable, title and risk of loss has been transferred to the customer, and collectability of the resulting receivable is reasonably assured. Title and risk of loss generally transfers upon shipment, or for certain systems, based upon customer acceptance for a system that has been delivered to the customer and installed at a customer facility. For systems that include customer-specific acceptance criteria, we are required to assess when we can demonstrate the acceptance criteria have been met, which generally is upon successful factory acceptance testing or customer acceptance and evidence of installation. Systems that have been shipped to customers, but not yet accepted by the customer, are included as finished goods in-transit. Finished goods in-transit was \$41.4 million and \$37.5 million at December 31, 2017 and 2016, respectively. We also have well-equipped applications and demonstration facilities and qualified application personnel who assist customers and provide product demonstrations in specific application areas. In total, we held \$54.5 million and \$34.8 million of demonstration inventory at December 31, 2017 and 2016, respectively.

**Backlog**

Our backlog consists of firm orders under non-cancellable purchase orders received from customers. Total system backlog at December 31, 2017 and 2016 was approximately \$1,010 million and \$932 million, respectively. We anticipate that approximately 78% of the backlog as of December 31, 2017 will be filled in 2018. We experience variable and fluctuating revenues in the first three quarters of the year, while our fourth quarter revenues have historically been stronger than the rest of the year. As a result, backlog on any particular date can be indicative of our short-term revenue performance, but is not necessarily a reliable indicator of long-term revenue performance.

**Employees**

As of December 31, 2017 and 2016, we had approximately 6,200 and 6,000 full-time employees worldwide, respectively. Of these employees, approximately 1,085 and 1,075 were located in the United States as of December 31, 2017 and 2016, respectively. Our employees in the United States are not unionized or affiliated with any labor organizations. Employees based outside the United States are primarily located in Europe, with worker's councils or labor unions primarily in Germany and France. Several of our international subsidiaries are parties to contracts with labor unions and workers' councils. We believe that we have good relationships with our employees and the workers' councils.

As of December 31, 2017, we had approximately 3,035 employees in production and distribution, 1,482 employees in selling and marketing and 1,000 employees in research and development, with general and administrative employees representing the remainder. As of December 31, 2016, we had approximately 2,975 employees in production and distribution, 1,500 employees in selling and marketing and 940 employees in research and development, with general and administrative employees representing the remainder.

**Financial Information about Geographic Areas and Segments**

Financial information about our geographic areas and segments may be found in Note 19 to our Consolidated Financial Statements in this Annual Report on Form 10-K, included as part of Item 8 to this report, which includes information about our revenues from external customers, measure of profit and total assets by reportable segment.

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**Available Information**

We are subject to the informational requirements of the Securities Exchange Act of 1934 ("Exchange Act"). Therefore, we file periodic reports, proxy statements and other information with the Securities and Exchange Commission ("SEC"). Such reports, proxy statements and other information may be read and copied by visiting the Public Reference Room of the SEC at 100 F Street N.E., Washington, D.C. 20549. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. In addition, the SEC maintains an Internet site (<http://www.sec.gov>) that contains reports, proxy and information statements and other information regarding issuers that file electronically.

Our website is located at [www.bruker.com](http://www.bruker.com). We make available free of charge through this website our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed with or furnished to the SEC pursuant to Section 13(a) or 15(d) of the Exchange Act, as soon as reasonably practicable after they are electronically filed with or furnished to the SEC. The contents of our website are not incorporated into this report.

**ITEM 1A RISK FACTORS**

The following risk factors should be considered in conjunction with the other information included in this Annual Report on Form 10-K. This report may include forward-looking statements that involve risks and uncertainties. In addition to those risk factors discussed elsewhere in this report, we identify the following risk factors, which could affect our actual results and cause actual results to differ materially from those in the forward-looking statements.

***We may lose money when we exchange foreign currency received from international sales into U.S. Dollars.***

A significant portion of our business is conducted in currencies other than the U.S. Dollar, which is our reporting currency. As a result, currency fluctuations among the U.S. Dollar and the currencies in which we do business have caused, and will continue to cause, foreign currency translation gains and losses. In addition, currency fluctuations could cause the price of our products to be more or less competitive than our principal competitors' products. Currency fluctuations will increase or decrease our cost structure relative to those of our competitors, which could lessen the demand for our products and affect our competitive position. From time to time we enter into certain hedging transactions and/or option and foreign currency exchange contracts which are intended to offset some of the market risk associated with our sales denominated in foreign currencies. We cannot predict the effectiveness of these transactions or their impact upon our future operating results, and from time to time they may negatively affect our quarterly earnings.

***Our reported financial results may be adversely affected by fluctuations in currency exchange rates.***

In addition to the foreign currency exposure associated with differences between where our products are manufactured and sold by us and our competitors, our exposure to currency exchange rate fluctuations results from the currency translation exposure associated with the preparation of our consolidated financial statements, as well as from the exposure associated with transactions of our subsidiaries that are denominated in a currency other than the respective subsidiary's functional currency. While our financial results are reported in U.S. Dollars, the financial statements of many of our subsidiaries outside the U.S. are prepared using the local currency as the functional currency. During consolidation, these results are translated into U.S. Dollars by applying appropriate exchange rates. As a result, fluctuations in the exchange rate of the U.S. Dollar relative to the local currencies in which our foreign subsidiaries report could cause significant fluctuations in our reported results. Moreover, as exchange rates vary, revenue and other operating results may differ materially from our expectations. The favorable effects of changes in currency exchange rates increased our 2017 revenues

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by approximately \$19.6 million, or 1.2%, while unfavorable foreign currency effects decreased our 2016 revenues by approximately \$8.3 million, or 0.5%, respectively. Adjustments resulting from financial statement translations are included as a separate component of shareholders' equity. In the year ended December 31, 2017, we recorded net gains from currency translation adjustments of \$97.1 million. In the year ended December 31, 2016, we recorded net losses from currency translation adjustments of \$27.6 million.

Additionally, to the extent monetary assets and liabilities, including cash and debt, are held in a different currency than the reporting subsidiary's functional currency, fluctuations in currency exchange rates may have a significant impact on our reported financial results, and may lead to increased earnings volatility. We may record significant gains or losses related to both the translation of assets and liabilities held by our subsidiaries into local currencies and the remeasurement of inter-company receivables and loan balances.

***Unfavorable economic or political conditions in the countries in which we operate may have an adverse impact on our business results or financial condition.***

Our businesses and results of operations are affected by international, national and regional economic and political conditions. Our businesses or financial results may be adversely impacted by unfavorable changes in economic or political conditions in the countries and markets in which we operate, including, among others, adverse changes in interest rates or tax rates, volatility in financial and commodity markets, contraction in the availability of credit in the marketplace, and changes in capital spending patterns.

Our revenue from U.S. operations represented approximately 25% and 27% of total consolidated revenue for fiscal 2017 and 2016, respectively. Our revenue from operations in Europe represented approximately 38% and 36% of total consolidated revenue for the corresponding periods. Our revenue from operations in the Asia Pacific region represented approximately 29% and 28% of total consolidated revenue for the corresponding periods. Economic factors that could adversely influence demand for the Company's products include uncertainty about global economic conditions leading to reduced levels of investment, changes in government spending levels and/or priorities, the size and availability of government budgets, customers' and suppliers' access to credit and other macroeconomic factors affecting government, academic or industrial spending behavior. Slower economic growth or a deterioration in economic conditions could result in a decrease in government funding for scientific research, a delay in orders from current or potential customers or a reduction in purchases of our products.

We cannot predict how changes in economic conditions or political instability will affect our customers and suppliers or how any negative impact on our customers and suppliers might adversely impact our business results or financial condition.

***The effect of comprehensive U.S. tax reform legislation is uncertain.***

On December 22, 2017, the President of the United States signed the Tax Cuts and Jobs Act, or the 2017 Tax Act, which enacted a wide range of changes to the U.S. income tax system, many of which differ significantly from the provisions of the previous U.S. tax law. The 2017 Tax Act, among other things, permanently reduces the U.S. corporate income tax rate to 21% beginning in 2018 and provides for more general changes to the taxation of corporations, including changes to the deductibility of interest expense, the adoption of a modified territorial tax system, assessing a repatriation tax or "toll-charge" on undistributed earnings and profits of U.S.-owned foreign corporations and broadening the corporate tax base through the elimination or reduction of deductions, exclusions and credits. We have not yet completed our assessment of the tax effects associated with the enactment of the 2017 Tax Act; however, reasonable estimates have been made of the effects of the 2017 Tax Act on the

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Company's existing deferred tax balances and the one-time transition tax on undistributed earnings and profits of our foreign subsidiaries. Changes in the tax rates and laws are accounted for in the period of enactment and these estimates are reflected in our financial statements for the period ended December 31, 2017.

The actual results of the implementation of the 2017 Tax Act may materially differ from our current estimate due to, among other things, further guidance that may be issued by U.S. tax authorities or regulatory bodies, including the SEC and the Financial Accounting Standards Board (FASB) to interpret the 2017 Tax Act. We will continue to analyze the 2017 Tax Act and any additional guidance that may be issued and finalize the full effects of applying the new legislation in future periods. Any revisions to our current estimates could materially affect our results of operations, cash flow and financial position.

***We derive a significant portion of our revenue from international sales and are subject to the risks of doing business in foreign countries.***

International sales account, and are expected to continue to account, for a significant portion of our total revenues. Our revenue from non-U.S. operations represented approximately 75% and 73% of our total consolidated revenue for fiscal 2017 and 2016, respectively. Our international operations are, and will continue to be, subject to a variety of risks associated with conducting business internationally, many of which are beyond our control. These risks, which may adversely affect our ability to achieve and maintain profitability and our ability to sell our products internationally, include:

changes in foreign currency translation rates;

changes in regulatory requirements;

legislation and regulation, including tariffs, relating to the import or export of high technology products;

the imposition of government controls;

political and economic instability, including international hostilities, acts of terrorism and governmental restrictions, inflation, trade relationships and military and political alliances;

costs and risks of deploying systems in foreign countries;

compliance with export laws and controls and trade embargoes in multiple jurisdictions;

limited intellectual property rights;

the burden of complying with a wide variety of complex foreign laws and treaties, including unfavorable labor regulations, specifically those applicable to our European operations; and

compliance with U.S. and local laws affecting the activities of U.S. companies abroad, including the United States Foreign Corrupt Practices Act, or FCPA, and local anti-bribery laws.

We must also comply with the recently enacted European Union General Data Protection Regulation (GDPR). All European Union member states must comply with GDPR by May 2018. The goal of the regulation is to increase individual rights and protections for personal data located in or originating from the European Union. GDPR is extraterritorial in that it applies to all business within the European Union and any business is located outside of the European Union that processes personal data of individuals located within the European Union. There are significant fines associated with non-compliance.



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While the impact of these factors is difficult to predict, any one or more of these factors could adversely affect our operations in the future.

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***If we are not able to successfully integrate the businesses we acquire through mergers, acquisitions or strategic alliances, we may not be able to realize all of the cost savings and other benefits that we expect to result from the transactions and our financial results may be different than expected.***

Our strategy includes expanding our technology base and product offerings through selected mergers, acquisitions and strategic alliances. For example, from 2015 to December 31, 2017, we have acquired 13 businesses to expand our technologies and product offerings.

Successful integration of the businesses we acquire involves a number of risks, including, among others, risks related to:

coordinating or consolidating geographically separate organizations and integrating personnel with different business backgrounds and corporate cultures;

integrating previously autonomous departments in sales and marketing, distribution, accounting and administrative functions, and information and management systems;

diversion of resources and management time;

disruption of our ongoing business;

potential impairment of relationships with customers as a result of changes in management or otherwise arising out of such transactions; and

retention of key employees of the acquired businesses within the first one to two years after the acquisition, including the risk that they may compete with us subsequently.

We may have difficulty developing, manufacturing and marketing the products of a newly acquired company or business in a way that enhances the performance of our combined businesses or product lines. As a result, we may not realize the value from expected synergies. Acquisitions have resulted, and may in the future result, in unexpected significant costs and expenses. In the future, we may be required to record charges to earnings during the period if we determine there is an impairment of goodwill or intangible assets, up to the full amount of the value of the assets.

***It may be difficult for us to implement our strategies for improving margins, profitability and cash flow.***

We are pursuing a number of strategies to improve our financial performance, including implementing various productivity improvement initiatives at both BSI and BEST in an effort to streamline our operations. These initiatives include the outsourcing of manufacturing activities, consolidating, transferring or ceasing operations at certain facilities; applying lean manufacturing and six sigma concepts to our operations, implementing ERP and other information technology systems and applying a shared service approach to various functions.

We may not be able to successfully implement these strategies, and these efforts may not result in the expected improvement in our margins, profitability or cash flow. Anticipated benefits to our operating and financial performance might be reduced or delayed as a result of difficulties in implementing these initiatives, which may include complications in the transfer of assets and production knowledge, loss of key employees and/or customers, the disruption of ongoing business and possible inconsistencies in standards, controls and procedures. Implementation costs also might exceed our expectations and further cost reduction measures might become necessary, resulting in additional future charges. Our ability to successfully implement these strategies and achieve our objectives will also depend on our ability to identify, attract and retain management and other personnel with the skills and experience needed to effectively manage the process and drive our operating performance improvement during and after implementation of our improvement initiatives.

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These improvement strategies may also have unintended consequences, such as attrition beyond our intended reduction in workforce, reduced employee morale and loss of customer relationships. We also may undertake additional restructuring activities in the future. Because of these and other factors, we cannot predict whether we will realize the purpose and anticipated benefits of our restructuring and related measures, and if we do not, our business and results of operations may be adversely affected.

***Goodwill, intangible assets and other long-lived assets are subject to impairment.***

We have recorded goodwill, intangible assets and other long-lived assets that must be periodically evaluated for potential impairment. We assess the realizability of the reported goodwill, intangible assets and other long-lived assets annually, as well as whenever events or changes in circumstances indicate that the assets may be impaired. These events or circumstances generally include operating losses or a significant decline in the earnings associated with the reporting unit these assets are reported within. A decline in our stock price and market capitalization may also cause us to consider whether goodwill, intangible assets and other long-lived assets may require an impairment assessment. Our ability to realize the value of these assets will depend on the future cash flows of the reporting unit in addition to how well we integrate the businesses we acquire. We have recorded impairment losses of \$1.1 million, \$0.8 million and \$4.6 million for the years ended December 31, 2017, 2016 and 2015, respectively.

***If our products fail to achieve and sustain sufficient market acceptance across their broad intended range of applications, we will not generate expected revenue.***

Our business strategy depends on our ability to successfully commercialize a broad range of products based on our technology platforms, including magnetic resonance technology, pre-clinical imaging technology, mass spectrometry technology, X-ray technology, atomic force microscopy technology, stylus and optical metrology technology, fluorescence microscopy technology, infrared technology and superconducting magnet technologies for use in a variety of life science, chemistry and materials analysis applications. Some of our products have only recently been commercially launched and have achieved only limited sales to date. The commercial success of our products depends on obtaining and expanding market acceptance by a diverse array of industrial, academic, clinical, pharmaceutical, biotechnology, applied, medical research and governmental customers around the world. We may fail to achieve or sustain substantial market acceptance for our products across the full range of our intended applications or in one or more of our principal intended applications. Any such failure could decrease our sales and revenue. To succeed, we must convince substantial numbers of potential customers to invest in new systems or replace their existing techniques with techniques employing our systems. Limited funding available for capital acquisitions by our customers, as well as our customers' own internal purchasing approval policies, could hinder market acceptance of our products. Our intended customers may be reluctant to make the substantial capital investment generally needed to acquire our products or to incur the training and other costs involved with replacing their existing systems with our products. We also may not be able to convince our intended customers that our systems are an attractive and cost-effective alternative to other technologies and systems for the acquisition, analysis and management of molecular, cellular and microscopic information. Additionally, if ethical and other concerns surrounding the use of genetic information, gene therapy or genetically modified organisms become widespread, we may have less demand for our products. Because of these and other factors, our products may fail to gain or sustain market acceptance.

***Our products compete in markets that are subject to rapid technological change, and one or more of the technologies underlying our products could be made obsolete by new technology.***

The market for discovery and analysis tools is characterized by rapid technological change and frequent new product introductions. Rapidly changing technology could make some or our entire

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product lines obsolete unless we are able to continually improve our existing products and develop new products. Because substantially all of our products are based on our technology platforms, including magnetic resonance technology, mass spectrometry technology, X-ray technology, atomic force microscopy technology, fluorescence microscopy technology, stylus and optical metrology technology and infrared technology, we are particularly vulnerable to any technological advances that would make these techniques obsolete as the basis for analytical systems in any of our markets. To meet the evolving needs of our customers, we must rapidly and continually enhance our current and planned products and services and develop and introduce new products and services. In addition, our product lines are based on complex technologies that are subject to rapid change as new technologies are developed and introduced in the marketplace. We may have difficulty in keeping abreast of the rapid changes affecting each of the different markets we serve or intend to serve. If we fail to develop and introduce products in a timely manner in response to changing technology, market demands or the requirements of our customers, our product sales may decline, and we could experience significant losses. Currently in our backlog, we have orders totaling \$112.0 million for ultra-high field magnets. If we are unable to reach the technical feasibility for these magnets, we will be unable to fulfill customer orders where alternate arrangements have not been provided for in customer contracts. Additional risks include extraordinary warranty expenses, rework and potential inventory write-offs.

***Our business could be harmed if our collaborations fail to advance our product development.***

Demand for our products will depend, in part, upon the extent to which our collaborations with pharmaceutical, biotechnology and proteomics companies are successful in developing, or helping us to develop, new products and new applications for our existing products. In addition, we collaborate with academic institutions and government research laboratories on product development. We have limited or no control over the resources that any collaborator may devote to our products. Any of our present or future collaborators may not perform their obligations as expected. If we fail to enter into or maintain appropriate collaboration agreements, or if any of these events occur, we may not be able to develop some of our new products, which could materially impede our ability to generate revenue or profits.

***We face substantial competition.***

We face substantial competition in our industries and we expect that competition in all of our markets will increase further. Currently, our principal competition comes from established companies providing products using existing technologies that perform many of the same functions for which we market our products. A number of our competitors have expanded their market share in recent years through business combinations. Other companies also may choose to enter our fields in the future. Our competitors may develop or market products that are more effective or commercially attractive than our current or future products or that may render our products obsolete. Competition has in the past subjected, and is likely in the future to subject, our products to pricing pressure. Many of our competitors have more experience in the market and substantially greater financial, operational, marketing and technical resources than we do, which could give them a competitive advantage in areas such as research and development, production, marketing and distribution. Our ability to compete successfully will depend, in part, on our ability to develop proprietary products that reach the market in a timely manner and are technologically superior to, less expensive than, or more cost-effective than, other currently marketed products.

***If we lose our strategic partners, our marketing and sales efforts could be impaired.***

A substantial portion of our sales of selected products consists of sales to third parties who incorporate our products into their systems. These third parties are responsible for the marketing and sales of their systems. We have little or no control over their marketing and sales activities or how they

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use their resources. Our present or future strategic partners may or may not purchase sufficient quantities of products from us or perform appropriate marketing and sales activities. In addition, if we are unable to maintain our relationships with strategic partners, our businesses may suffer. Failures by our present or future strategic partners, or our inability to maintain or enter into new arrangements with strategic partners for product distribution, could materially impede the growth of our businesses and our ability to generate sufficient revenue and profits.

***We face risks related to sales through distributors and other third parties that we do not control, which could harm our business.***

We sell some products through third party agents, including distributors and value-added resellers. This exposes us to various risks, including competitive pressure, concentration of sales volumes, credit risks, and compliance risks. We may rely on one or a few key distributors for a product or market, and the loss of these distributors could reduce our revenue and net earnings. Distributors may also face financial difficulties, including bankruptcy, which could harm our collection of accounts receivables. Risks related to our use of distributors may reduce sales, increase expenses, and weaken our competitive position. Moreover, violations of the FCPA or similar anti-bribery laws by distributors or other third party agents could materially and adversely impact our business and results of operations.

***Dependence on contract manufacturing may adversely affect our ability to bring products to market and damage our reputation.***

As part of our efforts to streamline our operations and reduce our operating costs, we outsource aspects of our manufacturing processes and continue to evaluate additional outsourcing. If our contract manufacturers fail to perform their obligations in a timely manner or at satisfactory quality levels, our ability to bring products to market and our reputation could suffer. For example, during a market upturn, our contract manufacturers may be unable to meet our demand requirements, which may preclude us from fulfilling our customers' orders on a timely basis. The ability of these manufacturers to perform is largely outside our control. Additionally, changing or replacing our contract manufacturers could cause disruptions or delays. Problems with outsourced manufacturing could result in lower revenues and unexecuted efficiencies, and adversely affect our financial condition and results of operations.

***If investment in life and material science research spending declines, our ability to generate revenue may suffer.***

We are dependent, both directly and indirectly, upon general investment in life science research, particularly in the research and development budgets of the pharmaceutical and biotechnology industries, and in material science research as well as upon the financial condition and funding priorities of various governments and government agencies. Since our inception, both we and our academic collaborators and customers have benefited from various governmental contracts and research grants. Whether we or our academic collaborators will continue to be able to attract these grants depends not only on the quality of our products, but also on general spending patterns of public institutions.

***Any reduction in the capital resources or government funding of our customers could reduce our sales and impede our ability to generate revenue.***

A significant portion of our sales are capital purchases by our customers. The spending policies of our customers could have a significant effect on the demand for our products. These policies are based on a wide variety of factors, including the resources available to make purchases, the spending priorities among various types of equipment, policies regarding spending during recessionary periods and changes in the political climate. Any changes in capital spending or changes in the capital budgets of our

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customers could significantly reduce demand for our products. The capital resources of our life science and other corporate customers may be limited by the availability of equity or debt financing. Any significant decline in research and development expenditures by our life science and material science customers could significantly decrease our sales. In addition, a substantial portion of our sales are to non-profit and government entities, which are dependent on government support for scientific research. Any decline in this support could decrease the ability of these customers to purchase our products.

***Disruptions at any of our manufacturing facilities could adversely affect our business.***

We have manufacturing facilities located in the United States, Europe and Israel. Many of our products are developed and manufactured at single locations, with limited alternate facilities. If we experience any significant disruption of those facilities for any reason, such as strikes or other labor unrest, power interruptions, fire, earthquakes, or other events beyond our control, we may be unable to manufacture the relevant products at previous levels or at all. A reduction or interruption in manufacturing could harm our customer relationships, impede our ability to generate revenues from our backlog or obtain new orders and could have a material adverse effect on our business, results of operations, financial condition and cash flows.

***If employees were to engage in a strike or other work stoppage or interruption, our business, results of operations, financial condition and liquidity could be materially adversely affected.***

Some of our employees are represented by workers' councils and labor unions in certain jurisdictions, primarily in Germany and France. Although we believe that our relations with our employees are satisfactory, if disputes with these employees arise, or if our workers engage in a strike or other work stoppage or interruption, we could experience a significant disruption of, or inefficiencies in, our operations or incur higher labor costs, which could have a material adverse effect on our business, results of operations, financial condition and liquidity.

***Our operations are dependent upon a limited number of suppliers and contract manufacturers.***

We currently purchase components used in our products from a limited number of outside suppliers. Our reliance on a limited number of suppliers could result in time delays associated with redesigning a product due to an inability to obtain an adequate supply of required components and reduced control over pricing, quality and timely delivery. Any of these factors could adversely affect our revenues and profitability. In particular, our X-ray microanalysis business, which manufactures and sells accessories for electron microscopes, is partially dependent on cooperation from larger manufacturers of electron microscopes. Additionally, our elemental analysis business purchases certain optical detectors from a single supplier, PerkinElmer, Inc., the sole supplier of these detector components. Bruker CALID purchases detectors and power supplies from sole or limited source suppliers and its focal plane array detectors from a single supplier, Lockheed Martin Corporation. Similarly, Bruker BioSpin obtains various components from sole or limited source suppliers and BEST obtains various raw materials and uses key production equipment from sole or limited source suppliers or contract manufacturers. There are limited, if any, available alternatives to these suppliers. The existence of shortages of these components or the failure of delivery with regard to these components could have a material adverse effect upon our revenues and margins. In addition, price increases from these suppliers or contract manufacturers could have a material adverse effect upon our gross margins.

Because of the scarcity of some components, we may be unable to obtain an adequate supply of components, or we may be required to pay higher prices or to purchase components of lesser quality. Any delay or interruption in the supply of these or other components could impair our ability to manufacture and deliver our products, harm our reputation and cause a reduction in our revenues. In addition, any increase in the cost of the components that we use in our products could make our products less competitive and decrease our gross profits. We may not be able to obtain sufficient

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quantities of required components on the same or substantially the same terms. Additionally, consolidation among our suppliers could result in other sole source suppliers for us in the future.

***Supply shortages and increasing prices of raw materials could adversely affect the gross profit of the Bruker BioSpin Group and of our Bruker Energy & Supercon Technologies business.***

The last few years have seen periodic supply shortages and sharp increases in the prices for various raw materials, in part due to high demand from developing countries. Bruker BioSpin and BEST rely on some of these materials for the production of their products. In particular, for its superconducting magnet production, both for the horizontal and vertical magnet series, Bruker BioSpin relies on the availability of copper, steel and the metallic raw materials for traditional low-temperature superconducting wires. Similarly, BEST relies on the availability of niobium titanium for its production of low-temperature superconducting materials and devices. Higher prices for these commodities will increase the production cost of superconducting wires and superconducting magnets and may adversely affect gross profits.

The prices of copper and certain other raw materials used for superconductors have increased significantly over the last decade. Since copper is a main constituent of low temperature superconductors, this may affect the price of superconducting wire. This type of increase would have an immediate effect on the production costs of superconducting magnets and may negatively affect the profit margins for those products. In addition, an increase in raw material cost affects the production cost of the superconducting wire produced by BEST and of superconducting wire used by Bruker BioSpin.

Bruker BioSpin and its customers also rely on liquid helium to operate its superconducting magnets. Helium is controlled by the Federal Helium Reserve and is subject to price changes. Shortages of liquid helium associated with federal price controls could have an adverse impact on producing and operating BioSpin's superconducting magnets and may also negatively impact the profit margins for those products.

***Regulations related to "conflict minerals" may cause us to incur additional expenses and could limit the supply and increase the cost of certain metals used in manufacturing our products.***

Regulations require disclosures by public companies of specified minerals, known as conflict minerals, that are necessary to the functionality or production of products manufactured or contracted to be manufactured. This requires the performance of due diligence to determine whether or not such minerals originate from the Democratic Republic of Congo or an adjoining country. These regulations could affect sourcing at competitive prices and availability in sufficient quantities of certain minerals used in the manufacture of our products, including tantalum, tin, gold and tungsten. The number of suppliers who provide conflict-free minerals may be limited. In addition, there may be material costs associated with complying with the disclosure requirements, such as costs related to determining the source of certain minerals used in our products, as well as costs of possible changes to products, processes or sources of supply as a consequence of such verification activities. As our supply chain is complex and we use contract manufacturers for some of our products, we may not be able to sufficiently verify the origins of the relevant minerals used in our products through the due diligence procedures that we implement, which may harm our reputation. In addition, we may encounter challenges to satisfy those customers who require that all of the components of our products be certified as conflict-free, which could place us at a competitive disadvantage if we are unable to do so.

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***If we fail to maintain an effective system of internal controls, we may not be able to accurately report our financial results, which could lead to a loss of investor confidence in our financial statements and have an adverse effect on our stock price.***

Effective internal controls are necessary for us to provide reliable and accurate financial statements and to effectively prevent fraud. We devote significant resources and time to comply with the internal control over financial reporting requirements of the Sarbanes Oxley Act of 2002 and continue to enhance our controls. However, we cannot be certain that we will be able to prevent future significant deficiencies or material weaknesses. In the year ended December 31, 2017, we remediated the previously disclosed material weakness in our internal controls over the accounting for income taxes. Inadequate internal controls could cause investors to lose confidence in our reported financial information, which could have a negative effect on investor confidence in our financial statements, the trading price of our stock and our access to capital.

***Our manufacture and sale of products could lead to product liability claims for which we could have substantial liability.***

The manufacture and sale of our products expose us to product liability claims if any of our products cause injury or are found otherwise unsuitable during manufacturing, marketing, sale or customer use. In particular, if one of our CBRNE detection products malfunctions, this could lead to civilian or military casualties in a time of unrest, exposing us to increased potential for high-profile liability. If our CBRNE detection products malfunction by generating a false-positive to a potential threat, we could be exposed to liabilities associated with actions taken that otherwise would not have been required. Additionally, the nuclear magnetic resonance, research magnetic resonance imaging, Fourier transform mass spectrometry and certain electron paramagnetic resonance magnets of Bruker BioSpin utilize high magnet fields and cryogenics to operate at approximately 4 Kelvin, the temperature of liquid helium. There is an inherent risk of potential product liability due to the existence of these high magnetic fields, associated stray fields outside the magnet, and the handling of the cryogenics associated with superconducting magnets. In addition, our MALDI Biotyper product has an IVD-CE mark and is used for the identification of microorganisms. Misidentification or a false-negative of certain bacteria, yeasts or fungi could lead to inappropriate treatment for patients, and could expose us to product liability claims.

A successful product liability claim brought against us in excess of, or outside the coverage of, our insurance coverage could have a material adverse effect on our business, financial condition and results of operations. We may not be able to maintain product liability insurance on acceptable terms, if at all, and insurance may not provide adequate coverage against potential liabilities.

***Responding to claims relating to improper handling, storage or disposal of hazardous chemicals and radioactive and biological materials which we use could be time consuming and costly.***

We use controlled hazardous and radioactive materials in our business and generate wastes that are regulated as hazardous wastes under U.S. federal, and Massachusetts, California, New Jersey, Washington and Wisconsin state, environmental and atomic energy regulatory laws and under equivalent provisions of law in those and other jurisdictions in which our research and manufacturing facilities are located. Our use of these substances and materials is subject to stringent, and periodically changing, regulation that can impose costly compliance obligations on us and have the potential to adversely affect our manufacturing activities. The risk of accidental contamination or injury from these materials cannot be completely eliminated. If an accident with these substances occurs, we could be held liable for any damages that result, in addition to incurring clean-up costs and liabilities, which can be substantial. Additionally, an accident could damage our research and manufacturing facilities resulting in delays and increased costs.



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***We are subject to environmental laws and regulations which may impose significant compliance or other costs on us.***

Our manufacturing, product development and research and development operations and processes involve the controlled use of certain hazardous materials. In addition, we own and/or lease a number of facilities, some of which have been in operation for many decades, where we or others may have used substances or generated and disposed of wastes which are considered hazardous or may be considered hazardous in the future. We also have acquired various companies which historically may have used certain hazardous materials and which may have owned and/or leased facilities at which hazardous materials have been used. For all of these reasons, we are subject to federal, state, foreign, and local laws and regulations governing the use, manufacture, storage, transportation, handling, treatment, remediation, and disposal of hazardous materials and certain waste products. We have potential liability under these laws and regulations with respect to the remediation of past contamination in certain of the facilities we now own or lease. Additionally, in the future our facilities and the disposal sites owned by others to which we send or sent waste, may be identified as contaminated and require remediation. Accordingly, we may become subject to additional compliance costs or environmental liabilities which may be significant and could materially harm our results of operations or financial condition.

***In addition to the risks applicable to our life science and materials analysis products, our CBRNE detection products are subject to a number of additional risks, including lengthy product development and contract negotiation periods and certain risks inherent in long-term government contracts.***

Our CBRNE detection products are subject to many of the same risks associated with our life science products, including vulnerability to rapid technological change, dependence on mass spectrometry and other technologies and substantial competition. In addition, our CBRNE detection products and certain FT-IR products are generally sold to government agencies under long-term contracts. These contracts generally involve lengthy pre-contract negotiations and product development. We may be required to devote substantial working capital and other resources prior to obtaining product orders. As a result, we may incur substantial costs before we recognize revenue from these products. Moreover, in return for larger, longer-term contracts, our customers for these products often demand more stringent acceptance criteria. These criteria may also cause delays in our ability to recognize revenue from sales of these products. Furthermore, we may not be able to accurately predict in advance our costs to fulfill our obligations under these long-term contracts. If we fail to accurately predict our costs, due to inflation or other factors, we could incur significant losses. Also, the presence or absence of such contracts may cause substantial variation in our results of operations between fiscal periods and, as a result, our results of operations for any given fiscal period may not be predictive of our results for subsequent fiscal periods. The resulting uncertainty may have an adverse impact on our stock price.

***We are subject to existing and potential additional regulation and government inquiry, which can impose burdens on our operations and narrow the markets for our products.***

We are subject, both directly and indirectly, to the adverse impact of existing and potential future government regulation of our operations and markets. For example, exportation of our products, particularly our CBRNE detection products, is subject to strict regulatory control in a number of jurisdictions. The failure to satisfy export control criteria or obtain necessary clearances could delay or prevent shipment of products, which could adversely affect our revenues and profitability.

In addition, as a result of our international operations, we are subject to compliance with various laws and regulations, including the FCPA and local anti-bribery laws in the jurisdictions in which we do business, which generally prohibit companies and their intermediaries or agents from engaging in bribery or making improper payments to foreign officials or their agents. The FCPA also requires proper record keeping and characterization of such payments in our reports filed with the SEC.

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Despite maintaining policies and procedures that require our employees to comply with these laws and our standards of ethical conduct, we cannot ensure that these policies and procedures will always protect us from intentional, reckless or negligent acts committed by our employees or agents. For example, in 2014 we resolved an investigation by the SEC into possible violations of the FCPA arising from past conduct of our subsidiaries operating in China. In connection with the resolution, we consented to the entry of an administrative cease and desist order by the SEC concerning violations of the books and records and internal controls provisions of the FCPA and paid an aggregate amount of approximately \$2.4 million, consisting of \$1.7 million in disgorgement, \$0.3 million in prejudgment interest, and a \$0.4 million penalty. We also incurred legal and professional fees associated with the investigation and settlement of approximately \$25.1 million. Additionally, in 2017 we resolved an investigation of the Korea Fair Trade Commission ("KFTC") into improper bidding by Bruker Korea Co., Ltd. ("Bruker Korea") and several other companies in connection with bids for sales of X-ray systems in 2010 and 2012. In connection with these matters, various Korean governmental entities imposed suspensions on Bruker Korea, with overlapping suspension periods ranging from three to six months. During the periods of these suspensions, which expired in 2017, Bruker Korea was prohibited from bidding for or conducting sales to Korean governmental agencies.

On October 19, 2017, the Company received a notice of investigation and subpoena to produce documents from the Division of Enforcement of the SEC. The subpoena seeks information related to an employee terminated as part of a restructuring and certain matters involving the Company's policies and accounting practices related to revenue recognition and restructuring activities, as well as related financial reporting, disclosure and compliance matters, since January 1, 2013. The subpoena also seeks information concerning, among other things, the Company's previously identified material weakness in internal controls over the accounting for income taxes, related financial reporting matters and certain payments for non-employee travel expenses. The Company is producing documents in response to the subpoena and intends to continue to cooperate fully with the SEC's investigation. At this time, the Company is unable to predict the duration, scope or outcome of this investigation.

Moreover, the life sciences industry, which is the market for our principal products, has historically been heavily regulated. There are, for example, laws in several jurisdictions restricting research in genetic engineering, which can operate to narrow our markets. Given the evolving nature of this industry, legislative bodies or regulatory authorities may adopt additional regulation that adversely affects our market opportunities. Our business is also directly affected by a wide variety of government regulations applicable to business enterprises generally and to companies operating in the life sciences industry in particular.

Our clinical products are subject to regulation by the FDA. These regulations govern a wide variety of product related activities, from quality management, design and development to labeling, manufacturing, promotion, sales and distribution. If we or any of our suppliers or distributors fail to comply with FDA and other applicable regulatory requirements, or are perceived to potentially have failed to comply, we may face, among other things, warning letters; adverse publicity affecting both us and our customers; investigations or notices of non-compliance, fines, injunctions, and civil penalties; import or export restrictions; partial suspensions or total shutdown of production facilities or the imposition of operating restrictions; increased difficulty in obtaining required FDA clearances or approvals or foreign equivalents; seizures or recalls of our products or those of our customers; or the inability to sell such products. Any such FDA actions could disrupt our business and operations, lead to significant remedial costs and have a material adverse impact on our financial position and results of operations.

We have been, are, and expect to be in the future, subject to inquiries from the government agencies that enforce these regulations, including the U.S. Department of State, the U.S. Department of Commerce, the U.S. Food and Drug Administration, the U.S. Internal Revenue Service, the U.S. Department of Homeland Security, the U.S. Department of Justice, the Securities and Exchange

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Commission, the Federal Trade Commission, the U.S. Customs and Border Protection and the U.S. Department of Defense, among others, as well as from state or foreign governments and their departments and agencies. As a result, from time to time, the attention of our management and other resources may be diverted to attend to these inquiries. In addition, failure to comply with these regulations or obtain or maintain necessary permits and licenses could result in a variety of fines or other censures or an interruption in our business operations which may have a negative impact on our ability to generate revenues and could adversely affect our financial condition and results of operations.

***Our success depends on our ability to operate without infringing or misappropriating the proprietary rights of others.***

Our commercial success depends on avoiding the infringement of other parties' patents and proprietary rights as well as avoiding the breach of any licenses relating to our technologies and products. Given that there may be patents of which we are unaware, particularly in the United States where patent applications are confidential, avoidance of patent infringement may be difficult. Various third parties hold patents which may relate to our technology, and we may be found in the future to infringe these or other patents or proprietary rights of third parties, either with products we are currently marketing or developing or with new products which we may develop in the future. If a third party holding rights under a patent successfully asserts an infringement claim with respect to any of our current or future products, we may be prevented from manufacturing or marketing our infringing product in the country or countries covered by the patent we infringe, unless we can obtain a license from the patent holder. We may not be able to obtain a license on commercially reasonable terms, if at all, especially if the patent holder is a competitor. In addition, even if we can obtain the license, it may be non-exclusive, which will permit others to practice the same technology licensed to us. We also may be required to pay substantial damages to the patent holder in the event of an infringement. Under some circumstances in the United States these damages could include damages equal to triple the actual damages the patent holder incurs. If we have supplied infringing products to third parties for marketing by them or licensed third parties to manufacture, use or market infringing products, we may be obligated to indemnify these third parties for any damages they may be required to pay to the patent holder and for any losses the third parties may sustain themselves as the result of lost sales or license payments they are required to make to the patent holder. Any successful infringement action brought against us may also adversely affect marketing of the infringing product in other markets not covered by the infringement action, as well as our marketing of other products based on similar technology. Furthermore, we will suffer adverse consequences from a successful infringement action against us even if the action is subsequently reversed on appeal, nullified through another action or resolved by settlement with the patent holder. The damages or other remedies awarded, if any, may be significant. As a result, any successful infringement action against us may harm our business.

***If we are unable to effectively protect our intellectual property, third parties may use our technology, which would impair our ability to compete in our markets.***

Our continued success will depend in significant part on our ability to obtain and maintain meaningful patent protection for our products throughout the world. We rely on patents to protect a significant part of our intellectual property and to enhance our competitive position. However, our presently pending or future patent applications may not issue as patents, and any patent previously issued to us may be challenged, invalidated, held unenforceable or circumvented. Furthermore, the claims in patents which have been issued, or which may be issued to us in the future, may not be sufficiently broad to prevent third parties from producing competing products similar to our products. In addition, the laws of various foreign countries in which we compete may not protect our intellectual property to the same extent as do the laws of the United States. Failure to obtain adequate patent protection for our proprietary technology could materially impair our ability to be commercially competitive.

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In addition to patent protection, we also rely on the protection of trade secrets, know-how and confidential and proprietary information. To maintain the confidentiality of trade secrets and proprietary information, we generally seek to enter into confidentiality agreements with our employees, consultants and strategic partners upon the commencement of a relationship with us. However, we may not obtain these agreements in all circumstances. In the event of unauthorized use or disclosure of this information, these agreements, even if obtained, may not provide meaningful protection for our trade secrets or other confidential information. In addition, adequate remedies may not exist in the event of unauthorized use or disclosure of this information. The loss or exposure of our trade secrets and other proprietary information would impair our competitive advantages and could have a material adverse effect on our operating results, financial condition and future growth prospects. Furthermore, others may have, or may in the future independently develop, substantially similar or superior know-how and technology.

***We may be involved in lawsuits to protect or enforce our patents that are brought by us which could be expensive and time consuming and, if determined adversely, could adversely affect our patent position.***

In order to protect or enforce our patent rights, we may initiate patent litigation against third parties, and we may be similarly sued by others. We may also become subject to interference proceedings conducted in the patent and trademark offices of various countries to determine the priority of inventions. The defense and prosecution, if necessary, of intellectual property suits, interference proceedings and related legal and administrative proceedings is costly and diverts our technical and management personnel from their normal responsibilities. We may not prevail in any of these suits. An adverse determination of any litigation or defense proceedings could put our patents at risk of being invalidated or interpreted narrowly and could put our patent applications at risk of not issuing.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. In addition, during the course of this kind of litigation, there could be public announcements of the results of hearings, motions or other interim proceedings or developments in the litigation. If securities analysts or investors perceive these results to be negative, it could have a substantial negative effect on the trading price of our common stock.

***We rely on information technology to support our operations and reporting environments. A security failure of that technology could impact our ability to operate our businesses effectively, adversely affect our financial results, damage our reputation and expose us to potential liability or litigation.***

We use information systems to carry out our operations and maintain our business records. Some systems are internally managed and some are maintained by third-party service providers. We and our service providers employ what we believe are adequate security measures. Our ability to conduct business could be materially and adversely affected if these systems or resources are compromised, damaged or fail. This could be a result of a cyber-incident, natural disaster, hardware or software corruption, failure or error, telecommunications system failure, service provider error or failure, intentional or unintentional personnel actions or other disruption.

In the ordinary course of business, we collect and store sensitive data, including intellectual property, other proprietary information and personally identifiable information. If this data is compromised, destroyed or inappropriately disclosed, it could have a material adverse effect, including damage to our reputation, loss of customers, significant expenses to address and resolve the issues, or litigation or other proceedings by affected individuals, business partners or regulatory authorities.

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***Our debt may adversely affect our cash flow and may restrict our investment opportunities or limit our activities.***

As of December 31, 2017, we had outstanding an aggregate principal amount of debt totaling approximately \$415.6 million, including \$220.0 million of senior unsecured notes, \$195.0 million of long-term borrowings under our revolving loan facility and \$1.3 million of other debt, offset by unamortized debt issuance costs for the senior unsecured notes of \$0.7 million. We also had the ability to borrow an additional \$303.9 million available under our existing credit facility. Most of our outstanding debt is in the United States and there are substantial cash requirements in the United States to service debt interest obligations, fund operations, capital expenditures and our declared dividends and finance potential acquisitions or share repurchases. Our ability to satisfy our debt obligations and meet our other liquidity needs depends on our future operating performance and on economic, financial, competitive and other factors beyond our control. Our business may not generate sufficient cash flow to meet our debt obligations or provide sufficient funds for our other objectives. If we are unable to service our debt or obtain additional financing, we may be forced to delay strategic acquisitions, capital expenditures or research and development expenditures or suspend our dividend payments and share repurchases. We may not be able to obtain additional financing on terms acceptable to us or at all. Furthermore, a majority of our cash, cash equivalents and short-term investments is generated from foreign operations, with \$405.8 million, or 92.4% held by foreign subsidiaries as of December 31, 2017. Our financial condition and results of operations could be adversely impacted if we are unable to maintain a sufficient level of cash flow in the United States to address our funding requirements through cash from operations and timely repatriation of cash from overseas or other sources obtained at an acceptable cost.

Additionally, the agreements governing our debt require that we maintain certain financial ratios related to maximum leverage and minimum interest coverage and contain negative covenants, including among others, restrictions on liens, indebtedness of the Company and its subsidiaries, asset sales, dividends and transactions with affiliates. Our ability to comply with these financial restrictions and covenants is dependent on our future performance, which is subject to prevailing economic conditions and other factors, including factors that are beyond our control such as foreign currency translation rates and interest rates. Our failure to comply with any of these restrictions or covenants may result in an event of default under the applicable debt instrument, which could permit acceleration of the debt under the facility and require us to prepay the debt before its scheduled due date.

***Changes in our effective income tax rate could adversely affect our results of operations.***

We are subject to income taxes in both the United States and various foreign jurisdictions and our domestic and international tax liabilities are largely dependent upon the distribution of income among these different jurisdictions. Various factors may have favorable or unfavorable effects on our effective income tax rate. These factors include interpretations of existing tax laws, the accounting for stock options and other share-based compensation, changes in tax laws and rates, including the recently enacted Tax Cuts and Jobs Act, future levels of research and development spending, changes in accounting standards, changes in the mix of earnings in the various tax jurisdictions in which we operate, the outcome of examinations by the U.S. Internal Revenue Service and other tax authorities, the accuracy of our estimates for unrecognized tax benefits and realization of deferred tax assets and changes in overall levels of pre-tax earnings.

***Various international tax risks could adversely affect our earnings and cash flows.***

We are subject to international tax risks. We could be subject to double taxation on income related to operations in certain countries that do not have tax treaties with the country of the trading partner. In addition, we may have a higher effective income tax rate than that of other companies in our industry if losses incurred by one operating company are not available to offset the income of an

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operating company located in another country. Also, distributions of earnings and other payments received from our subsidiaries may be subject to withholding taxes imposed by the countries where they are operating or are incorporated. If these foreign countries do not have income tax treaties with the United States or the countries where our subsidiaries are incorporated, we could be subject to high rates of withholding taxes on these distributions and payments. Additionally, the amount of the credit that we may claim against our U.S. federal income tax for foreign income taxes paid or accrued is subject to many limitations which may significantly restrict our ability to claim a credit for all of the foreign taxes we pay.

We currently have reserves established for potential tax liabilities. If these reserves are challenged, and we are unable to successfully defend our tax positions, a negative impact to our cash flows could result.

### ***The unpredictability and fluctuation of our quarterly results may adversely affect the trading price of our common stock.***

Our revenues and results of operations have in the past and will in the future vary from quarter to quarter due to a number of factors, many of which are outside our control and any of which may cause our stock price to fluctuate. The primary factors that may affect us include the following:

the timing of sales of our products and services;

the timing of recognizing revenue and deferred revenue under U.S. GAAP;

changes in our pricing policies or the pricing policies of our competitors;

increases in sales and marketing, product development or administration expenses;

the mix of services provided by us and third-party contractors;

our ability to attain and maintain quality levels for our products;

costs related to acquisitions of technology or businesses; and

the effectiveness of transactions entered into to hedge the risks associated with foreign currency and interest rate fluctuations.

We can experience quarter-to-quarter fluctuations in our operating results as a result of various factors, some of which are outside our control, such as:

the timing of governmental stimulus programs and academic research budgets;

the time it takes between the date customer orders and deposits are received, systems are shipped and accepted by our customers and full payment is received;

the time it takes to satisfy local customs requirements and other export/import requirements;

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the time it takes for customers to construct or prepare their facilities for our products; and

the time required to obtain governmental licenses.

These factors have in the past affected the amount and timing of revenue recognized on sales of our products and receipt of related payments and will continue to do so in the future. Accordingly, our operating results in any particular quarter may not necessarily be an indication of any future quarter's operating performance.

Historically we have higher levels of revenue in the fourth quarter of the year compared to the first, second and third quarters, which we believe is primarily the result of our customers' budgeting cycles. Quarter-to-quarter comparisons of our results of operations should not be relied upon as an indication of our future performance. It is likely that in some future quarters, our results of operations

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may be below the expectations of public market analysts and investors. In this event, the price of our common stock may fall.

***Existing stockholders have significant influence over us.***

As of March 12, 2018, Laukien family members, including our Chairman, President and Chief Executive Officer Frank Laukien and Director Joerg Laukien, owned, in the aggregate, approximately 35.7% of our outstanding common stock. As a result, these stockholders will be able to exercise substantial influence over all matters requiring stockholder approval, including the election of directors and approval of significant corporate transactions. This could have the effect of delaying or preventing a change in control of our company and will make some transactions difficult to accomplish without the support of these stockholders.

***Other companies may have difficulty acquiring us, even if doing so would benefit our stockholders, due to provisions under our corporate charter and bylaws, as well as Delaware law.***

Provisions in our certificate of incorporation, as amended, and our bylaws, as well as Delaware law could make it more difficult for other companies to acquire us, even if doing so would benefit our stockholders. Our certificate of incorporation, as amended, and bylaws contain the following provisions, among others, which may inhibit an acquisition of our company by a third party:

a staggered Board of Directors, where stockholders elect only a minority of the board each year;

advance notification procedures for matters to be brought before stockholder meetings;

a limitation on who may call stockholder meetings; and

the ability of our Board of Directors to issue up to 5,000,000 shares of preferred stock without a stockholder vote.

**ITEM 1B UNRESOLVED STAFF COMMENTS**

We have not received any written comments from the staff of the Securities and Exchange Commission regarding our periodic or current reports that (1) we believe are material, (2) were issued not less than 180 days before the end of our 2017 fiscal year end, and (3) remain unresolved.

**ITEM 2 PROPERTIES**

We believe that our existing principal facilities are well maintained and in good operating condition and that they are adequate for our foreseeable business needs.

In addition to the principal facilities noted below, we lease additional facilities for sales, applications and service support in various countries throughout the world including Australia, Austria, Belgium, Brazil, China, Czech Republic, Estonia, France, Germany, Hong Kong, India, Israel, Italy, Japan, Malaysia, Mexico, Netherlands, Poland, Portugal, Russia, Singapore, South Africa, South Korea, Spain, Sweden, Switzerland, Taiwan, Thailand, Turkey, Ukraine, the United Kingdom and the United States. If we should require additional or alternative facilities, we believe that such facilities can be obtained on short notice at competitive rates.

The location and general character of our principal properties by operating segment are as follows:

***BSI Segment:***

Bruker BioSpin's five principal facilities are located in Rheinstetten, Ettlingen and Karlsruhe, Germany; Faellanden, Switzerland; and Wissembourg, France. These facilities, which incorporate



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manufacturing, research and development, application and demonstration, marketing and sales and administration functions for the businesses of Bruker BioSpin, include:

an owned 475,000 square foot facility in Rheinstetten, Germany;

an owned 360,000 square foot facility in Ettlingen, Germany;

an owned 345,000 square foot facility in Karlsruhe, Germany;

an owned 300,000 square foot facility and a leased 70,000 square foot facility in Faellanden, Switzerland; and

an owned 175,000 square foot facility and a leased 16,000 square foot facility in Wissembourg, France.

Bruker CALID's three principal facilities are located in Bremen, Ettlingen and Leipzig, Germany. These facilities, which incorporate manufacturing, research and development, application and demonstration, marketing and sales and administration functions for the mass spectrometry and CBRNE businesses of Bruker CALID, include:

an owned 270,500 square foot facility in Bremen, Germany;

an owned 205,000 square foot facility in Ettlingen, Germany; and

an owned 165,000 square foot facility in Leipzig, Germany.

Bruker Nano's five principal facilities are located in Karlsruhe and Berlin, Germany; Migdal Ha'Emek, Israel; Madison, Wisconsin, U.S.A.; and Santa Barbara, California, U.S.A. These facilities, which incorporate manufacturing, research and development, application and demonstration, marketing and sales and administration functions for the businesses of Bruker Nano, include:

an owned 76,000 square foot facility and an owned 46,000 square foot facility in Karlsruhe, Germany;

an owned 100,000 square foot facility in Santa Barbara, California, U.S.A.;

an owned 87,000 square foot facility in Berlin, Germany;

an owned 43,000 square foot facility in Madison, Wisconsin, U.S.A.; and

a leased 22,000 square foot facility in Migdal Ha'Emek, Israel.

### ***BEST Segment:***

BEST's five principal facilities are located in Hanau, Bergisch Gladbach and Alzenau, Germany, Carteret, New Jersey, U.S.A., and Perth, Scotland. These facilities, which incorporate manufacturing, research and development, application and demonstration, marketing and sales and administration functions for the business of BEST, include:

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an owned 47,000 square foot facility in Perth, Scotland;

a leased 170,000 square foot facility in Hanau, Germany;

a leased 80,000 square foot facility in Bergisch Gladbach, Germany;

a leased 107,000 square foot facility in Carteret, New Jersey, U.S.A.; and

a leased 31,000 square foot facility in Alzenau, Germany.

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**ITEM 3 LEGAL PROCEEDINGS**

We are involved in lawsuits, claims, and proceedings, including, but not limited to, patent and commercial matters, which arise in the ordinary course of business. There are no such matters pending that we currently believe are reasonably possible of having a material impact on our business or to our consolidated financial statements.

In addition, from time to time, the Company is the subject of investigations by national, state and local government agencies in the United States and other countries in which it operates, involving, among other things, regulatory, financial reporting, marketing and other business practices. These governmental investigations may result in the commencement of civil and criminal proceedings, fines, penalties and administrative remedies and may have a material adverse effect on our financial position, results of operations and/or business.

On October 19, 2017, we received a notice of investigation and subpoena to produce documents from the Division of Enforcement of the SEC. The subpoena seeks information related to an employee terminated as part of a restructuring and certain matters involving the Company's policies and accounting practices related to revenue recognition and restructuring activities, as well as related financial reporting, disclosure and compliance matters, since January 1, 2013. The subpoena also seeks information concerning, among other things, the Company's previously identified material weakness in internal controls over the accounting for income taxes, related financial reporting matters and certain payments for non-employee travel expenses. The Company is producing documents in response to the subpoena and intends to continue to cooperate fully with the SEC's investigation. At this time, we are unable to predict the duration, scope or outcome of this investigation.

**ITEM 4 MINE SAFETY DISCLOSURE**

Not applicable.

Table of Contents**PART II****ITEM 5 MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES****Market Prices**

Our common stock is traded on the Nasdaq Global Select Market under the symbol "BRKR." The following table sets forth, for the period indicated, the high and low sales prices for our common stock as reported on the Nasdaq Global Select Market:

	<b>High</b>	<b>Low</b>
First Quarter 2017	\$ 25.39	\$ 21.20
Second Quarter 2017	30.02	21.83
Third Quarter 2017	30.23	26.98
Fourth Quarter 2017	36.53	29.59
First Quarter 2016	\$ 29.23	\$ 20.90
Second Quarter 2016	29.85	21.76
Third Quarter 2016	25.37	21.38
Fourth Quarter 2016	23.52	19.59

As of March 12, 2018, there were approximately 88 holders of record of our common stock. This number does not include individual beneficial owners of shares held in nominee name or within clearinghouse positions of brokerage firms and banks.

**Dividends**

On February 22, 2016, we announced the establishment of a dividend policy and the declaration by our Board of Directors of an initial quarterly cash dividend in the amount of \$0.04 per share of our issued and outstanding common stock. Cash dividends paid in 2017 and 2016 totaled \$0.04 per share in each of March, June, September and December. Under the dividend policy, we will target a cash dividend to our stockholders in the amount of \$0.16 per share per annum, payable in equal quarterly installments. Subsequent dividend declarations and the establishment of record and payment dates for such future dividend payments, if any, are subject to the Board of Directors' continuing determination that the dividend policy is in the best interests of our stockholders. The dividend policy may be suspended or cancelled at the discretion of the Board of Directors at any time. We are in compliance with restrictions that the terms of certain debt facilities place on the amount of cash dividends that we could potentially pay.

**Recent Sales of Unregistered Securities**

There were no unregistered sales of equity securities during the fourth quarter of 2017.

Table of Contents**Issuer Purchases of Equity Securities**

The following table sets forth all purchases made by or on behalf of the Company or any "affiliated purchaser," as defined in Rule 10b-18(a)(3) under the Exchange Act, of shares of our common stock during each month in the fourth quarter of 2017.

<b>Period</b>	<b>Total Number of Shares Purchased (1)</b>	<b>Average Price Paid per Share</b>	<b>Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs (2)</b>	<b>Maximum Number of Shares (or approximate dollar value) that May Yet Be Purchased Under the Plans or Programs (3)</b>
October 1-October 31, 2017	560,000	\$ 30.55	560,000	\$ 76,090,259
November 1-November 30, 2017	100,000	32.61	100,000	72,828,939
December 1-December 31, 2017				72,828,939
	660,000	\$ 30.86	660,000	

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- (1) Includes (i) shares repurchased under a \$225 million share repurchase program approved by the Board of Directors and announced on May 12, 2017 (the "Repurchase Program"), under which repurchases of common stock may occur from time to time, in amounts, at prices, and at such times as the Company deems appropriate, subject to market conditions, legal requirements and other considerations.
- (2) Represents shares repurchased under the Repurchase Program.
- (3) The Repurchase Program authorizes purchases of up to \$225 million of the Company's common stock over a two-year period commencing May 12, 2017. As of December 31, 2017, shares of common stock with an aggregate cost of approximately \$152.2 million have been repurchased. The remaining authorization under the Repurchase Program is \$72.8 million as of March 12, 2018. The Repurchase Program expires May 11, 2019 and can be suspended, modified or terminated at any time without prior notice.

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**Stock Price Performance Graph**

The graph below shows the cumulative stockholder return, assuming the investment of \$100 (and the reinvestment of any dividends thereafter) for the period beginning on December 31, 2012 and ending on December 31, 2017, for our common stock, stocks traded on Nasdaq, and a peer group consisting of U.S. Public Companies with a Standard Industry Classification, or SIC, code 3826 Laboratory Analytical Instruments. The stock price performance of Bruker Corporation shown in the following graph is not indicative of future stock price performance.

**Comparison of 5 Year Cumulative Total Return**

Assumes Initial Investment of \$100  
December 2017

<b>Cumulative Total Return Index for:</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Bruker Corporation	\$ 100.0	\$ 129.7	\$ 128.7	\$ 159.3	\$ 139.9	\$ 228.0
NASDAQ Stock Market (US companies)	100.0	139.4	160.7	173.1	190.1	203.1
SIC Code 3826 Laboratory Analytical Instruments	100.0	140.6	165.5	181.7	176.7	265.7

The data for this performance graph was compiled by Zack's Investment Research, Inc. and is used with their permission.

Table of Contents**ITEM 6 SELECTED FINANCIAL DATA**

The consolidated statements of income and comprehensive income data for each of the years ended December 31, 2017, 2016 and 2015, and the consolidated balance sheet data as of December 31, 2017 and 2016, have been derived from our audited consolidated financial statements included in Item 8 in this Annual Report on Form 10-K.

The data presented below was derived from consolidated financial statements that were prepared in accordance with U.S. generally accepted accounting principles and should be read with the consolidated and combined financial statements, including the notes thereto, and "Management's Discussion and Analysis of Financial Condition and Results of Operations" included elsewhere in this Annual Report on Form 10-K.

	Year Ended December 31,				
	2017(1)	2016(2)	2015(3)	2014(4)	2013(5)
	(in millions, except per share data)				
<b>Consolidated/Combined Statements of Income Data:</b>					
Product revenue	\$ 1,479.5	\$ 1,345.4	\$ 1,381.1	\$ 1,571.9	\$ 1,611.4
Service revenue	278.2	254.7	235.5	231.8	219.3
Other revenue	8.2	11.2	7.2	5.2	8.7
Total revenue	1,765.9	1,611.3	1,623.8	1,808.9	1,839.4
Total costs and operating expenses	1,551.2	1,434.1	1,478.1	1,703.5	1,691.2
Operating income	214.7	177.2	145.7	105.4	148.2
Net income attributable to Bruker Corporation	78.6	153.6	101.6	56.7	80.1
Net income per common share attributable to Bruker Corporation shareholders:					
Basic	\$ 0.50	\$ 0.95	\$ 0.60	\$ 0.34	\$ 0.48
Diluted	\$ 0.49	\$ 0.95	\$ 0.60	\$ 0.33	\$ 0.48
Cash dividends declared per common share	\$ 0.16	\$ 0.16	\$	\$	\$

- (1) 2017 includes \$16.2 million of restructuring costs and \$1.1 million of impairment of other long-lived assets and includes \$68.9 million of incremental income tax provision related to the 2017 Tax Act.
- (2) 2016 includes \$20.8 million of restructuring costs and \$0.8 million of impairment of other long-lived assets.
- (3) 2015 includes \$29.3 million of restructuring costs and \$4.6 million of impairment of goodwill, definite-lived intangible assets and other long-lived assets.
- (4) 2014 includes \$36.1 million of restructuring costs and \$11.5 million of impairment of definite-lived intangible assets and other long-lived assets.

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- (5) 2013 includes \$25.3 million of restructuring costs.

	Year Ended December 31,				
	2017	2016 (1)	2015	2014 (2)	2013
	(in millions)				
<b>Consolidated/Combined Balance Sheet Data:</b>					
Cash and cash equivalents	\$ 325.0	\$ 342.4	\$ 267.1	\$ 319.5	\$ 438.7
Short-term investments	114.2	157.9	201.2	178.0	
Working capital (3)	834.3	751.2	677.0	783.6	783.3
Total assets	1,948.5	1,808.4	1,730.0	1,863.7	1,987.1
Total debt	415.6	411.7	265.8	353.9	353.8
Other long-term liabilities	274.9	199.0	177.4	156.2	135.2
Total shareholders' equity	733.5	693.1	732.9	771.7	850.2

- (1) In 2016, the Company adopted Accounting Standards Update 2015-03, *Simplifying the Presentation of Debt Issuance Costs*, and reclassified the debt issuance costs associated with the senior unsecured notes to a reduction of the carrying amount of debt instead of as an other asset as of each of the years presented above. The impact was \$0.9 million, \$1.1 million, \$1.2 million and \$1.4 million in each of the years ended December 31, 2015, 2014 and 2013, respectively.
- (2) In 2014, the Company commenced a program to enter into time deposits with varying maturity dates as well as call deposits. Based on the call and maturity dates, certain of these investments have been classified as short-term investments.
- (3) Working capital is defined in the above table as current assets less current liabilities.



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**ITEM 7 MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

The following Management's Discussion and Analysis of Financial Condition and Results of Operations, or MD&A, describes the principal factors affecting the results of our operations, financial condition and changes in financial condition, as well as our critical accounting policies and estimates. Our MD&A is organized as follows:

*Overview.* This section provides a brief discussion of our reportable segments' results of operations, significant recent developments in our businesses, and challenges and risks that may impact our businesses in the future.

*Results of Operations.* This section provides our analysis of the significant line items on our consolidated statements of income and comprehensive income for the year ended December 31, 2017 compared to the year ended December 31, 2016 and for the year ended December 31, 2016 compared to the year ended December 31, 2015.

*Liquidity and Capital Resources.* This section provides an analysis of our liquidity and cash flow and a discussion of our outstanding debt and commitments.

*Critical Accounting Policies and Estimates.* This section discusses the accounting estimates that are considered important to our financial condition and results of operations and require us to exercise subjective or complex judgments in their application. All of our significant accounting policies are summarized in Note 2 to our consolidated financial statements in Item 8 of this Annual Report on Form 10-K.

*Recent Accounting Pronouncements.* This section provides a summary of recent accounting pronouncements and discusses their potential impact on our consolidated financial statements.

*Transactions with Related Parties.* This section summarizes transactions with related parties.

Statements contained in Management's Discussion and Analysis of Financial Condition and Results of Operations, which express that we "believe," "anticipate," "plan," "expect," "seek," "estimate," or "should," as well as other statements which are not historical fact, are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Actual events or results may differ materially from those set forth in forward-looking statements. Certain factors that might cause such a difference are discussed in "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" in this Annual Report on Form 10-K for the year ended December 31, 2017.

Although our consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the United States of America (GAAP), we believe describing revenue and expenses, excluding the effects of foreign currency, acquisitions and divestitures, as well as certain other charges, net, provides meaningful supplemental information regarding our performance. Specifically, management believes that free cash flow and organic revenue, both non-GAAP financial measures, as well as non-GAAP gross profit margin and non-GAAP operating margin, provide relevant and useful information which is widely used by equity analysts, investors and competitors in our industry, as well as by our management, in assessing both consolidated and business unit performance. We define the term organic revenue as GAAP revenue excluding the effect of foreign currency translation changes and the effect of acquisitions and divestitures. We define the term non-GAAP gross profit margin as GAAP gross profit margin with certain non-GAAP measures excluded and non-GAAP operating margin as GAAP operating margin with certain non-GAAP measures excluded. These non-GAAP measures exclude costs related to restructuring actions, acquisition and related integration expenses, amortization of acquired intangible assets and other costs that are infrequent or non-recurring in nature and we believe these are useful measures to evaluate our continuing business.

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We define free cash flow as net cash provided by operating activities less additions to property, plant, and equipment. We believe free cash flow is a useful measure to evaluate our business as it indicates the amount of cash generated after additions to property, plant, and equipment which is available for, among other things, investments in our business, acquisitions, share repurchases, dividends and repayment of debt.

We use these non-GAAP financial measures to evaluate our period-over-period operating performance because our management believes they provide more comparable measures of our continuing business because they adjust for certain items that are not reflective of the underlying performance of our business. These measures may also be useful to investors in evaluating the underlying operating performance of our business. We regularly use these non-GAAP financial measures internally to understand, manage, and evaluate our business results and make operating decisions. We also measure our employees and compensate them, in part, based on such non-GAAP measures and use this information for our planning and forecasting activities. The presentation of these non-GAAP financial measures is not intended to be a substitute for, or superior to, the financial information prepared and presented in accordance with GAAP and may be different from non-GAAP financial measures used by other companies, and therefore, may not be comparable among companies.

**OVERVIEW**

We are organized into four operating segments: the Bruker BioSpin Group, the Bruker CALID Group, the Bruker Nano Group and the Bruker Energy & Supercon Technologies (BEST) Segment.

For the year ended December 31, 2017, our revenue increased by \$154.6 million, or 9.6%, to \$1,765.9 million, compared to \$1,611.3 million for the year ended December 31, 2016. Included in revenue were an increase of approximately \$77.2 million attributable to our recent acquisitions and an increase of approximately \$19.6 million from the impact of foreign currency translation caused by the weakening of the U.S. Dollar versus the Euro and other currencies. Excluding the effects of foreign currency translation and our recent acquisitions, our organic revenue, a non-GAAP measure, increased by \$57.8 million, or 3.6%.

Our gross profit margin remained approximately consistent at 46.0% during the year ended December 31, 2017 as compared to 46.1% during the year ended December 31, 2016. The positive effect of higher sales resulting from improvements in European and Industrial end markets was offset primarily by unfavorable business and product mix caused higher revenues in our now larger BEST segment which has lower gross profit margins and unfavorable mix within the BioSpin Group.

Our operating margin increased to 12.2% for the year ended December 31, 2017 from 11.0% during the year ended December 31, 2016 demonstrating operating leverage following Bruker's multi-year operational transformation while appropriately investing in our six strategic growth areas. The operating margin increased due primarily to positive operating leverage on higher sales, cost discipline and savings from restructuring initiatives. These factors more than offset dilution from recent acquisitions and foreign currency translations effects.

The income tax provision in the years ended December 31, 2017 and 2016 was \$117.5 million and \$23.1 million, respectively, representing effective tax rates of 59.4% and 13.0%, respectively. The increase in our effective tax rate for the year ended December 31, 2017, compared to 2016, was primarily attributable to the impact of U.S. tax reform in 2017 offset by the 2016 release of our remaining valuation allowances and the recognition of previously unrecognized tax benefits due to the closure of tax audits in 2016. Our tax rate may change over time as the amount and mix of jurisdictional income changes.

On December 22, 2017 (Enactment Date), the President of the United States signed tax reform legislation (2017 Tax Act), which enacted a wide range of changes to the U.S. corporate income tax

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system, many of which differ significantly from the provisions of the previous U.S. tax law. We have not yet completed the assessment of the tax effects associated with the enactment of the 2017 Tax Act. However, a reasonable estimate has been made of the effects on the existing deferred tax balances and the one-time transition tax. Changes in the tax rates and laws are accounted for in the period of enactment. Therefore, during the fourth quarter of 2017, we recorded an incremental income tax provision of \$68.9 million, which is primarily comprised of the following:

An estimated income tax provision of \$55.0 million for the federal and state impacts of the one-time deemed repatriation of pre-2018 E&P. In accordance with the 2017 Tax Act, the federal portion of the toll charge liability may be paid over eight years. Such liability can be reduced by certain credits. Accordingly, we have recorded \$30.6 million and \$2.7 million in long-term income tax liabilities and accrued income taxes (current), respectively, as of December 31, 2017

An estimated net income tax benefit of \$1.4 million, for the remeasurement of our deferred tax assets and liabilities at the newly enacted tax rate of 21%; and

As a result of the 2017 Tax Act and our expectations about distributing certain cash balances from its foreign subsidiaries to the United States, we also recorded estimated income tax provisions for estimated state income taxes and foreign withholding taxes of \$12.5 million.

The actual results of the implementation of the 2017 Tax Act may materially differ from our current estimate due to, among other things, further guidance that may be issued by U.S. tax authorities or regulatory bodies including the SEC and the FASB to interpret the 2017 Tax Act. We will continue to analyze the 2017 Tax Act and any additional guidance that may be issued and finalize the full effects of applying the new legislation in the measurement period.

Earnings per share decreased from \$0.95 to \$0.49 per diluted share for the year ended December 31, 2017 when compared to the year ended December 31, 2016. The decrease was primarily due to the impact of U.S. tax reform which resulted in a significantly higher effective tax rate for the year ended December 31, 2017.

Operating cash flow for the year ended December 31, 2017 was a source of cash of \$154.4 million. For the year ended December 31, 2017, our free cash flow, a non-GAAP measure, was \$110.7 million, calculated as follows:

	<b>Year Ended December 31,</b>		
	<b>2017</b>	<b>2016</b>	<b>2015</b>
Net cash provided by operating activities	\$ 154.4	\$ 130.8	\$ 229.2
Less: Purchases of property, plant and equipment	43.7	37.1	34.2
<b>Free Cash Flow</b>	<b>\$ 110.7</b>	<b>\$ 93.7</b>	<b>\$ 195.0</b>

For the year ended December 31, 2017 our free cash flow was 18% higher than for the year ended December 31, 2016 primarily attributable to higher net earnings adjusted for non-cash items, lower inventory levels and timing of employee payments. These effects were partially offset by an increase in accounts receivables caused by proportionately higher sales late in the fourth quarter of 2017.

In May 2017, our Board of Directors approved a share repurchase program (the "Repurchase Program") that authorized repurchases of up to \$225.0 million of common stock over two years. A total of 5,318,063 shares were repurchased at an aggregate cost of \$152.2 million in the twelve months ended December 31, 2017.

On February 22, 2016, we announced the establishment of a dividend policy and the declaration by our Board of Directors of an initial quarterly cash dividend in the amount of \$0.04 per share of our issued and outstanding common stock. Dividends amounting to \$25.4 million and \$25.8 million were

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paid during the years ended December 31, 2017 and 2016, respectively. Future dividend payments, if any are subject to approval of our Board of Directors. We are targeting a cash dividend to our shareholders in the amount of \$0.16 per share per annum, payable in equal quarterly installments.

In the years ended December 31, 2017 and 2016, we completed various acquisitions that complemented our existing market offerings and added aftermarket and software capabilities to our existing microbiology business. The impact of the acquired companies on revenues, net income and total assets was not material.

We can experience quarter-to-quarter fluctuations in our operating results as a result of various factors, some of which are outside of our control, such as:

the timing of governmental stimulus programs and academic research budgets;

the time it takes between the date customer orders and deposits are received, systems are shipped and accepted by our customers and full payment is received;

the time it takes to satisfy local customs requirements and other export/import requirements;

the time it takes for customers to construct or prepare their facilities for our products; and

the time required to obtain governmental licenses.

These factors have in the past affected the amount and timing of revenue recognized on sales of our products and receipt of related payments and will continue to do so in the future. Accordingly, our operating results in any particular quarter may not necessarily be an indication of any future quarter's operating performance.

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### **RESULTS OF OPERATIONS**

*Year Ended December 31, 2017 Compared to the Year Ended December 31, 2016*

#### **Consolidated Results**

The following table presents our results for the years ended December 31, 2017 and 2016 (dollars in millions, except per share data):

	<b>Year Ended December 31,</b>	
	<b>2017</b>	<b>2016</b>
Product revenue	\$ 1,479.5	\$ 1,345.4
Service revenue	278.2	254.7
Other revenue	8.2	11.2
<b>Total revenue</b>	<b>1,765.9</b>	<b>1,611.3</b>
Cost of product revenue	790.7	714.2
Cost of service revenue	160.8	150.0
Cost of other revenue	1.4	4.6
<b>Total cost of revenue</b>	<b>952.9</b>	<b>868.8</b>
<b>Gross profit</b>	<b>813.0</b>	<b>742.5</b>
Operating expenses:		
Selling, general and administrative	415.9	390.5
Research and development	162.7	149.0
Other charges	19.7	25.8
<b>Total operating expenses</b>	<b>598.3</b>	<b>565.3</b>
<b>Operating income</b>	<b>214.7</b>	<b>177.2</b>
Interest and other income (expense), net	(16.9)	0.4
<b>Income before income taxes and noncontrolling interest in consolidated subsidiaries</b>	<b>197.8</b>	<b>177.6</b>
Income tax provision	117.5	23.1
<b>Consolidated net income</b>	<b>80.3</b>	<b>154.5</b>
Net income attributable to noncontrolling interest in consolidated subsidiaries	1.7	0.9
<b>Net income attributable to Bruker Corporation</b>	<b>\$ 78.6</b>	<b>\$ 153.6</b>
Net income per common share attributable to Bruker Corporation shareholders:		
Basic	\$ 0.50	\$ 0.95
Diluted	\$ 0.49	\$ 0.95
Weighted average common shares outstanding:		
Basic	158.1	161.4
Diluted	159.1	162.2
<b>Revenue</b>		

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For the year ended December 31, 2017, our revenue increased by \$154.6 million, or 9.6%, to \$1,765.9 million, compared to \$1,611.3 million for the year ended December 31, 2016. Included in revenue were an increase of approximately \$77.2 million attributable to our recent acquisitions and an

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increase of approximately \$19.6 million from the impact of foreign currency translation caused by the weakening of the U.S. Dollar versus the Euro and other currencies. Excluding the effects of foreign currency translation and our recent acquisitions, our organic revenue, a non-GAAP measure, increased by \$57.8 million, or 3.6%.

***Gross Profit***

Our gross profit for the year ended December 31, 2017 was \$813.0 million, resulting in a gross profit margin of 46.0%, compared to \$742.5 million, resulting in a gross profit margin of 46.1%, for the year ended December 31, 2016. Included in gross profit were various charges for amortization of acquisition-related intangible assets and other acquisition-related costs and restructuring costs totaling \$36.1 million and \$31.9 million for the years ended December 31, 2017 and 2016, respectively. Excluding these charges, our non-GAAP gross profit margins was 48.1% in each of the years ended December 31, 2017 and 2016.

***Selling, General and Administrative***

Our selling, general and administrative expenses for the year ended December 31, 2017 increased to \$415.9 million, or 23.6% of revenue, from \$390.5 million, or 24.2% of revenue, for the year ended December 31, 2016. The increase was primarily caused by the effect of recent acquisitions in our Bruker Nano Group and Bruker CALID Group. The decrease in selling, general and administrative expenses as a percentage of revenue was attributable to cost control discipline and savings associated with restructuring initiatives.

***Research and Development***

Our research and development expenses for the year ended December 31, 2017 increased to \$162.7 million, or 9.2% of revenue, from \$149.0 million, or 9.2% of revenue, for the year ended December 31, 2016. The increase was primarily caused by the effect of recent acquisitions in our Bruker Nano Group and Bruker CALID Group.

***Other Charges, Net***

Other charges, net was \$19.7 million for the year ended December 31, 2017, of which \$18.7 million related to the BSI Segment and \$1.0 million related to the BEST Segment. The charges consisted primarily of \$10.6 million of restructuring costs related to closing facilities and implementing outsourcing and other restructuring initiatives, \$4.5 million related primarily to additional contingent consideration recognized for the acquisition of Jordan Valley Semiconductors, Ltd. ("Jordan Valley") based upon an increase in revenue levels of the acquired business which increased the amount of expected earn out payments, \$4.2 million of costs associated with our global information technology (IT) transformation initiative and impairment charges of \$0.2 million comprised of other long-lived assets related to the restructuring actions.

Other charges, net was \$25.8 million for the year ended December 31, 2016, of which \$25.2 million related to the BSI Segment and \$0.6 million related to the BEST Segment. The charges consisted primarily of \$9.8 million of restructuring costs related to closing facilities and implementing outsourcing and other restructuring initiatives, \$9.0 million related primarily to additional contingent consideration recognized for the Jordan Valley acquisition based upon an increase in revenue levels of the acquired business which increased the amount of expected earn out payments, \$6.2 million of costs associated with our global IT transformation initiative and impairment charges of \$0.8 million comprised of other long-lived assets related to the restructuring actions within the Bruker CALID and Bruker Nano Groups during the year.

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In 2018, we expect to incur \$7.0 to \$10.0 million of expense related to various outsourcing initiatives and other restructuring activities that were implemented in 2017 or will commence in 2018.

At December 31, 2017 and 2016, we performed our annual goodwill and indefinite-lived intangible impairment evaluation and concluded the fair values of each of our reporting units were significantly greater than their carrying amounts, and therefore, no additional impairment is required.

We will continue to monitor goodwill and long-lived intangible assets, as well as long-lived tangible assets, for possible future impairment.

***Operating Income***

Operating income for the year ended December 31, 2017 was \$214.7 million, resulting in an operating margin of 12.2%, compared to income from operations of \$177.2 million, resulting in an operating margin of 11.0%, for the year ended December 31, 2016. The operating margin increased due primarily to positive operating leverage on higher revenues, cost discipline and savings from restructuring initiatives. These factors more than offset dilution from recent acquisitions and foreign currency translation effects. Included in operating income were various charges for amortization of acquisition-related intangible assets and other acquisition-related costs and restructuring costs totaling \$61.4 million and \$60.7 million for the years ended December 31, 2017 and 2016, respectively. Excluding these charges, our non-GAAP operating margins was 15.6% and 14.8% in the years ended December 31, 2017 and 2016, respectively.

***Interest and Other Income (Expense), Net***

Interest and other income (expense), net during the year ended December 31, 2017 was (\$16.9) million, compared to \$0.4 million for the year ended December 31, 2016.

During the year ended December 31, 2017, the major components within interest and other income (expense), net were net interest expense of \$14.6 million and realized and unrealized losses on foreign currency denominated transactions of \$5.5 million, partially offset by \$2.1 million of proceeds from a cargo insurance settlement and a gain on acquisition of \$0.6 million. The \$0.6 million gain on acquisition related to the acquisition of MERLIN Diagnostika GmbH within the BSI Segment as the value of the assets purchased exceeded the consideration paid. During the year ended December 31, 2016, the major components within interest and other income (expense), net were a gain on acquisition of \$9.2 million, realized and unrealized gains on foreign currency denominated transactions of \$4.1 million, partially offset by net interest expense of \$12.9 million. The \$9.2 million gain on acquisition related to the acquisition of Oxford Instruments Superconducting Wire LLC ("OST") within the BEST Segment as the value of the assets purchased exceeded the consideration paid.

We expect to incur approximately \$13.5 million of interest expense in 2018.

***Income Tax Provision***

The income tax provision in the years ended December 31, 2017 and 2016 was \$117.5 million and \$23.1 million, respectively, representing effective tax rates of 59.4% and 13.0%, respectively. The increase in our effective tax rate for the year ended December 31, 2017, compared to 2016, was primarily attributable impact of U.S. tax reform in 2017 which was offset by the 2016 release of our remaining valuation allowances and the recognition of previously unrecognized tax benefits due to the closure of tax audits in 2016. Our tax rate may change over time as the amount and mix of jurisdictional income changes.

We expect our effective income tax rate to be approximately 25.0% for the year ended December 31, 2018.



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On December 22, 2017 (Enactment Date), the President of the United States signed tax reform legislation (2017 Tax Act), which enacted a wide range of changes to the U.S. corporate income tax system, many of which differ significantly from the provisions of the previous U.S. tax law. We have not yet completed the assessment of the tax effects associated with the enactment of the 2017 Tax Act. However, a reasonable estimate has been made of the effects on the existing deferred tax balances and the one-time transition tax. Changes in the tax rates and laws are accounted for in the period of enactment. Therefore, during the fourth quarter of 2017, we recorded an incremental income tax provision of \$68.9 million, which is primarily comprised of the following:

An estimated income tax provision of \$55.0 million for the federal and state impacts of the one-time deemed repatriation of pre-2018 E&P. In accordance with the 2017 Tax Act, the federal portion of the toll charge liability may be paid over eight years. Such liability can be reduced by certain credits. Accordingly, we have recorded \$30.6 million and \$2.7 million in long-term income tax liabilities and accrued income taxes (current), respectively, as of December 31, 2017

An estimated net income tax benefit of \$1.4 million, for the remeasurement of our deferred tax assets and liabilities at the newly enacted tax rate of 21%; and

As a result of the 2017 Tax Act and our expectations about distributing certain cash balances from its foreign subsidiaries to the United States, we also recorded estimated income tax provisions for estimated state income taxes and foreign withholding taxes of \$12.5 million.

The actual results of the implementation of the 2017 Tax Act may materially differ from our current estimate due to, among other things, further guidance that may be issued by U.S. tax authorities or regulatory bodies including the SEC and the FASB to interpret the 2017 Tax Act. We will continue to analyze the 2017 Tax Act and any additional guidance that may be issued and finalize the full effects of applying the new legislation in the measurement period.

The majority of the Company's earnings are derived in Germany and Switzerland. Accounting for the various federal and local taxing authorities, the statutory rates for 2017 were approximately 30.0% and 20.0% for Germany and Switzerland, respectively. The mix of earnings in those two jurisdictions resulted in a reduction of 7.8% from the U.S. statutory rate of 35.0% in 2017. The Company has not been party to any tax holiday agreements.

***Net Income Attributable to Noncontrolling Interests***

Net income attributable to noncontrolling interests for the year ended December 31, 2017 was \$1.7 million compared to \$0.9 million for the year ended December 31, 2016. The net income attributable to noncontrolling interests represented the minority shareholders' proportionate share of the net income recorded by our majority-owned indirect subsidiaries.

***Net Income Attributable to Bruker Corporation***

Our net income attributable to Bruker Corporation for the year ended December 31, 2017 was \$78.6 million, or \$0.49 per diluted share, compared to net income of \$153.6 million, or \$0.95 per diluted share, for 2016. The decrease for the year ended December 31, 2017 was primarily caused by the impact of U.S. tax reform as noted above.

Table of Contents**Segment Results****Revenue**

The following table presents revenue, change in revenue, and revenue growth by reportable segment for the years ended December 31, 2017 and 2016 (dollars in millions):

	2017	2016	Dollar Change	Percentage Change
BSI	\$ 1,583.9	\$ 1,492.6	\$ 91.3	6.1%
BEST	191.2	130.2	61.0	46.9%
Eliminations (a)	(9.2)	(11.5)	2.3	
	\$ 1,765.9	\$ 1,611.3	\$ 154.6	9.6%

(a) Represents product and service revenue between reportable segments.

**BSI Segment Revenues**

For financial reporting purposes, we aggregate the Bruker BioSpin, Bruker CALID and Bruker Nano operating segments into the Bruker Scientific Instruments (BSI) reportable segment, which represented approximately 90% of the Company's revenues during the year ended December 31, 2017. This aggregation reflects these operating segments' similar economic characteristics, production processes, customer services provided, types and classes of customers, methods of distribution and regulatory environments. Our BEST Segment is our other reportable segment and represents the remainder of our revenues.

BSI Segment revenue increased by \$91.3 million, or 6.1%, to \$1,583.9 million for the year ended December 31, 2017, compared to \$1,492.6 million for the year ended December 31, 2016. Included in revenue was an increase of approximately \$33.4 million related to our recent acquisitions and approximately \$17.3 million from the impact of foreign currency translation caused by the weakening of the U.S. Dollar versus the Euro and other currencies. Excluding the effects of foreign currency translation and our recent acquisitions, organic revenue, a non-GAAP measure, increased by \$40.6 million, or 2.7%.

Bruker BioSpin Group revenue increased by \$9.2 million to \$571.9 million for the year ended December 31, 2017, compared to \$562.7 million for the year ended December 31, 2016. The Bruker BioSpin Group revenue increased despite a challenging comparison as the year ended December 31, 2016 benefited from the sale of the first shielded ultra-high field one gigahertz NMR system and higher levels of high field NMR systems. The increase in revenue was primarily attributable to the service and aftermarket business of the Bruker BioSpin Group and foreign currency translations.

Bruker CALID Group revenue increased by \$23.6 million to \$499.0 million for the year ended December 31, 2017 compared to \$475.4 million for the year ended December 31, 2016. The Bruker CALID Group increase was primarily the result of improved academic end markets, particularly for mass spectrometry products and within Europe, and infrared and Raman technologies used in applied and industrial end markets, and the contributions of acquisitions and foreign currency translation effects. These increases were partly offset by lower CBRNE revenue, which benefited from a significant contract in the year ended December 31, 2016.

Bruker Nano Group revenue increased by \$58.4 million to \$513.0 million for the year ended December 31, 2017, compared to \$454.6 million for the year ended December 31, 2016. The Bruker Nano Group revenue increase was primarily as a result of recent acquisitions, growth within the academic and industrial markets for X-ray and nano surfaces products and growth in semiconductor metrology markets.

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System revenue and aftermarket revenue as a percentage of total BSI Segment revenue were as follows during the years ended December 31, 2017 and 2016 (dollars in millions):

	2017		2016	
	Revenue	Percentage of Segment Revenue	Revenue	Percentage of Segment Revenue
System revenue	\$ 1,147.1	72.4%	\$ 1,092.8	73.2%
Aftermarket revenue	436.8	27.6%	399.8	26.8%
<b>Total revenue</b>	<b>\$ 1,583.9</b>	<b>100.0%</b>	<b>\$ 1,492.6</b>	<b>100.0%</b>

**BEST Segment Revenues**

BEST Segment revenue increased by \$61.0 million, or 46.9%, to \$191.2 million for the year ended December 31, 2017, compared to \$130.2 million for the year ended December 31, 2016. The increase in revenue resulted from the OST acquisition, which was completed in the fourth quarter of 2016, and organic revenue growth caused by higher shipments of superconductors to large magnetic resonance imaging customers.

System and wire revenue and aftermarket revenue as a percentage of total BEST Segment revenue were as follows during the years ended December 31, 2017 and 2016 (dollars in millions):

	2017		2016	
	Revenue	Percentage of Segment Revenue	Revenue	Percentage of Segment Revenue
System and wire revenue	\$ 187.7	98.2%	\$ 126.9	97.5%
Aftermarket revenue	3.5	1.8%	3.3	2.5%
<b>Total revenue</b>	<b>\$ 191.2</b>	<b>100.0%</b>	<b>\$ 130.2</b>	<b>100.0%</b>

**Gross Profit and Operating Expenses**

For the year ended December 31, 2017, gross profit margin in the BSI Segment increased to 49.6% from 48.1% in the year ended December 31, 2016. The increase in gross margin was caused primarily by higher sales attributable to improved European and industrial end markets and operating cost improvements resulting from recent restructuring and operational initiatives. A product mix favoring less profitable lower field NMR systems within the BioSpin Group was an offset to the year over year BSI Segment gross margin expansion. The BEST Segment gross profit margin decreased to 15.3% from 17.1% for the year ended December 31, 2016. Lower gross margins resulted primarily from the impact of the OST acquisition. Integration plans for the BEST Segment's OST business include commercial and productivity improvement actions designed to achieve pre-acquisition gross profit margin levels.

For the year ended December 31, 2017, selling, general and administrative expenses and research and development expenses in the BSI Segment increased to \$557.8 million, or 35.2% of segment revenue, from \$524.0 million, or 35.1% of segment revenue, for the comparable period in 2016. Selling, general and administrative expenses and research and development expenses in the BEST Segment increased to \$20.7 million, or 10.8% of segment revenue, in 2017 compared to \$15.5 million, or 11.9% of segment revenue, in 2016. The decrease in BEST Segment operating expenses as a percent of revenue was primarily attributable to the increased revenue during the year ended December 31, 2017.

Table of Contents**Operating Income**

The following table presents operating income and operating margins on revenue by reportable segment for the years ended December 31, 2017 and 2016 (dollars in millions):

	2017		2016	
	Operating Income	Percentage of Segment Revenue	Operating Income	Percentage of Segment Revenue
BSI	\$ 208.6	13.2%	\$ 168.9	11.3%
BEST	7.4	3.9%	6.6	5.1%
Corporate, eliminations and other (a)	(1.3)		1.7	
Total operating income	\$ 214.7	12.2%	\$ 177.2	11.0%

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(a) Represents corporate costs and eliminations not allocated to the reportable segments.

BSI Segment operating income for the year ended December 31, 2017 was \$208.6 million, resulting in an operating margin of 13.2%, compared to income from operations of \$168.9 million, resulting in an operating margin of 11.3%, for the year ended December 31, 2016. Our operating margin increased primarily because of the gross profit improvements noted above, as well as operational improvements as a result of our restructuring initiatives.

BEST Segment operating income for the year ended December 31, 2017 was \$7.4 million, resulting in an operating margin of 3.9%, compared to operating income of \$6.6 million, resulting in an operating margin of 5.1%, for the year ended December 31, 2016. The decrease in operating margin was primarily the result of the gross margin deterioration noted above.

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*Year Ended December 31, 2016 Compared to the Year Ended December 31, 2015*

### **Consolidated Results**

The following table presents our results for the years ended December 31, 2016 and 2015 (dollars in millions, except per share data):

	<b>Year Ended December 31,</b>	
	<b>2016</b>	<b>2015</b>
Product revenue	\$ 1,345.4	\$ 1,381.1
Service revenue	254.7	235.5
Other revenue	11.2	7.2
<b>Total revenue</b>	<b>1,611.3</b>	<b>1,623.8</b>
Cost of product revenue	714.2	774.2
Cost of service revenue	150.0	139.7
Cost of other revenue	4.6	1.3
<b>Total cost of revenue</b>	<b>868.8</b>	<b>915.2</b>
<b>Gross profit</b>	<b>742.5</b>	<b>708.6</b>
Operating expenses:		
Selling, general and administrative	390.5	392.2
Research and development	149.0	145.7
Other charges	25.8	25.0
<b>Total operating expenses</b>	<b>565.3</b>	<b>562.9</b>
<b>Operating income</b>	<b>177.2</b>	<b>145.7</b>
Interest and other income (expense), net	0.4	(17.7)
<b>Income before income taxes and noncontrolling interest in consolidated subsidiaries</b>	<b>177.6</b>	<b>128.0</b>
Income tax provision	23.1	23.1
<b>Consolidated net income</b>	<b>154.5</b>	<b>104.9</b>
Net income attributable to noncontrolling interest in consolidated subsidiaries	0.9	3.3
<b>Net income attributable to Bruker Corporation</b>	<b>\$ 153.6</b>	<b>\$ 101.6</b>
Net income per common share attributable to Bruker Corporation shareholders:		
Basic	\$ 0.95	\$ 0.60
Diluted	\$ 0.95	\$ 0.60
Weighted average common shares outstanding:		
Basic	161.4	168.2
Diluted	162.2	169.1
<b>Revenue</b>		

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For the year ended December 31, 2016, our revenue decreased by \$12.5 million, or 0.8%, to \$1,611.3 million, compared to \$1,623.8 million for the year ended December 31, 2015. Included in revenue was an increase of approximately \$32.4 million attributable primarily to the acquisition of Jordan Valley and a decrease of approximately \$8.3 million from the impact of foreign currency translation caused by the strengthening of the U.S. Dollar versus the Euro, Swiss Franc and other

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currencies. Excluding the effects of foreign currency translation and our recent acquisitions, our organic revenue, a non-GAAP measure, decreased by \$36.6 million, or 2.3%.

***Gross Profit***

Our gross profit for the year ended December 31, 2016 was \$742.5 million, resulting in a gross profit margin of 46.1%, compared to \$708.6 million, resulting in a gross profit margin of 43.6%, for the year ended December 31, 2015. The increase in our gross profit margin was caused primarily by operating cost improvements as a result of recent restructuring and operational initiatives, the impact of pricing increases and a favorable business mix within the Bruker BioSpin Group and the impact of the Jordan Valley acquisition. The favorable effect of these items was partially offset by weakness in Bruker Nano Group industrial market segments and delays in European academic funding within our Bruker CALID and Bruker Nano Groups during the first three quarters of 2016.

***Selling, General and Administrative***

Our selling, general and administrative expenses for the year ended December 31, 2016 decreased to \$390.5 million, or 24.2% of revenue, from \$392.2 million, or 24.2% of revenue, for the year ended December 31, 2015. Selling, general and administrative expenses remained consistent as a percentage of revenue compared to the year ended December 31, 2015 as the favorable impacts of our outsourcing and restructuring initiatives was offset by additional expenses incurred related to our 2015 acquisition of Jordan Valley and other recent acquisitions.

***Research and Development***

Our research and development expenses for the year ended December 31, 2016 increased to \$149.0 million, or 9.2% of revenue, from \$145.7 million, or 9.0% of revenue, for the year ended December 31, 2015. The increase was attributable to new initiatives related to our recent acquisitions and our expanded technological portfolio.

***Other Charges, Net***

Other charges, net was \$25.8 million for the year ended December 31, 2016, of which \$25.2 million related to the BSI Segment and \$0.6 million related to the BEST Segment. The charges consisted primarily of \$9.8 million of restructuring costs related to closing facilities and implementing outsourcing and other restructuring initiatives, \$9.0 million related primarily to additional contingent consideration recognized for Jordan Valley based upon an increase in revenue levels of the acquired business which increased the amount of expected earn out payments, \$6.2 million of costs associated with our global information technology (IT) transformation initiative and impairment charges of \$0.8 million comprised of other long-lived assets related to the restructuring actions within the Bruker CALID and Bruker Nano Groups during the year.

Other charges, net was \$25.0 million for the year ended December 31, 2015 and related almost entirely to the BSI Segment. The charges consisted primarily of a \$10.2 million one-time, non-cash settlement charge as the plan assets and pension obligations for the retirees and other certain members of the population within our pension plan in Switzerland were transferred to an outside insurance provider, \$8.1 million of restructuring costs related to closing facilities and implementing outsourcing and other restructuring initiatives, \$8.9 million of costs associated with our global IT transformation initiative and impairment charges of \$4.6 million comprised of goodwill, definite-lived intangible assets and other long-lived assets, related to the restructuring actions within the Bruker BioSpin Group, partially offset by (\$7.2) million of contingent consideration reversals, as it was determined that certain financial targets related to the applicable acquisitions would not meet the required thresholds for payment.

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At December 31, 2016 and 2015, we performed our annual goodwill and indefinite-lived intangible impairment evaluation and concluded the fair values of each of our reporting units were significantly greater than their carrying amounts, and therefore, no additional impairment is required.

***Operating Income***

Operating income for the year ended December 31, 2016 was \$177.2 million, resulting in an operating margin of 11.0%, compared to income from operations of \$145.7 million, resulting in an operating margin of 9.0%, for the year ended December 31, 2015. The increase in operating margin was primarily attributable to the gross margin improvements discussed above, operating cost improvements as a result of our restructuring initiatives and prudent cost controls.

***Interest and Other Income (Expense), Net***

Interest and other income (expense), net during the year ended December 31, 2016 was \$0.4 million compared to (\$17.7) million for the year ended December 31, 2015.

During the year ended December 31, 2016, the major components within interest and other income (expense), net were a gain on acquisition of \$9.2 million, realized and unrealized gains on foreign currency denominated transactions of \$4.1 million, partially offset by net interest expense of \$12.9 million. The \$9.2 million gain on acquisition related to the acquisition of OST within the BEST Segment as the value of the assets purchased exceeded the consideration paid. During the year ended December 31, 2015, the major components within interest and other income (expense), net were net interest expense of \$11.8 million and realized and unrealized losses on foreign currency denominated transactions of \$5.5 million.

***Income Tax Provision***

The income tax provision in each of the years ended December 31, 2016 and 2015 was \$23.1 million, representing effective tax rates of 13.0% and 18.0%, respectively. The decrease in our effective tax rate for the year ended December 31, 2016, compared to 2015, was primarily attributable to the release of our remaining valuation allowances and the recognition of previously unrecognized tax benefits due to the closure of tax audits. Our tax rate may change over time as the amount and mix of jurisdictional income changes.

***Net Income Attributable to Noncontrolling Interests***

Net income attributable to noncontrolling interests for the year ended December 31, 2016 was \$0.9 million compared to \$3.3 million for the year ended December 31, 2015. The net income attributable to noncontrolling interests represented the minority shareholders' proportionate share of the net income recorded by our majority-owned indirect subsidiaries.

***Net Income Attributable to Bruker Corporation***

Our net income attributable to Bruker Corporation for the year ended December 31, 2016 was \$153.6 million, or \$0.95 per diluted share, compared to net income of \$101.6 million, or \$0.60 per diluted share, for 2015. The increase for the year ended December 31, 2016 was primarily caused by increased gross profit, operating profit improvements, a lower effective tax rate and the positive impact of foreign currency translation and our share repurchase program.



Table of Contents**Segment Results****Revenue**

The following table presents revenue, change in revenue, and revenue growth by reportable segment for the years ended December 31, 2016 and 2015 (dollars in millions):

	2016	2015	Dollar Change	Percentage Change
BSI	\$ 1,492.6	\$ 1,499.2	\$ (6.6)	(0.4)%
BEST	130.2	133.7	(3.5)	(2.6)%
Eliminations (a)	(11.5)	(9.1)	(2.4)	
	\$ 1,611.3	\$ 1,623.8	\$ (12.5)	(0.8)%

(a) Represents product and service revenue between reportable segments.

**BSI Segment Revenues**

For financial reporting purposes, we aggregate the Bruker BioSpin, Bruker CALID and Bruker Nano operating segments into the Bruker Scientific Instruments (BSI) reportable segment, which represented approximately 93% of the Company's revenues during the year ended December 31, 2016. This aggregation reflects these operating segments' similar economic characteristics, production processes, customer services provided, types and classes of customers, methods of distribution and regulatory environments. Our BEST Segment is our other reportable segment and represents the remainder of our revenues.

BSI Segment revenue decreased by \$6.6 million, or 0.4%, to \$1,492.6 million for the year ended December 31, 2016, compared to \$1,499.2 million for the year ended December 31, 2015. Included in revenue was an increase of approximately \$26.6 million related to the acquisition of Jordan Valley, offset in part by approximately \$7.6 million from the impact of foreign currency translation caused by the strengthening of the U.S. Dollar versus the Euro, Swiss Franc and other currencies. Excluding the effects of foreign currency translation and our recent acquisitions, our organic revenue, a non-GAAP measure, decreased by \$25.6 million, or 1.7%.

Bruker BioSpin Group revenue increased by \$15.7 million to \$562.7 million for the year ended December 31, 2016, compared to \$547.0 million for the year ended December 31, 2015. The Bruker BioSpin Group increase in revenue was primarily due to increased pricing and the recognition of revenues from the sale of the first shielded ultra-high field gigahertz nuclear magnetic resonance system.

Bruker CALID Group revenue decreased by \$17.2 million to \$475.4 million for the year ended December 31, 2016, compared to \$492.6 million for the year ended December 31, 2015. The Bruker CALID Group experienced lower revenue primarily due to delays in European academic funding in the first three quarters of 2016 and lower sales of our MALDI Biotyper in China and the United States in the first half of 2016.

Bruker Nano Group revenue decreased by \$5.2 million to \$454.6 million for the year ended December 31, 2016, compared to \$459.8 million for the year ended December 31, 2015. The Bruker Nano Group experienced lower revenue primarily due to delays in European academic funding in the first three quarters of 2016 as well as continued weaker demand within global industrial markets.

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System revenue and aftermarket revenue as a percentage of total BSI Segment revenue were as follows during the years ended December 31, 2016 and 2015 (dollars in millions):

	2016		2015	
	Revenue	Percentage of Segment Revenue	Revenue	Percentage of Segment Revenue
System revenue	\$ 1,092.8	73.2%	\$ 1,119.7	74.7%
Aftermarket revenue	399.8	26.8%	379.5	25.3%
Total revenue	\$ 1,492.6	100.0%	\$ 1,499.2	100.0%

**BEST Segment Revenues**

BEST Segment revenue decreased by \$3.5 million, or 2.6%, to \$130.2 million for the year ended December 31, 2016, compared to \$133.7 million for the year ended December 31, 2015. The decline in revenue was primarily attributable to the completion and final acceptance of the ROSATOM pilot line in Russia, and high margin customer projects (DESY particle acceleration and ITER magnetic fusion) in the year ended December 31, 2015.

System and wire revenue and aftermarket revenue as a percentage of total BEST Segment revenue were as follows during the years ended December 31, 2016 and 2015 (dollars in millions):

	2016		2015	
	Revenue	Percentage of Segment Revenue	Revenue	Percentage of Segment Revenue
System and wire revenue	\$ 126.9	97.5%	\$ 129.7	97.0%
Aftermarket and other revenue	3.3	2.5%	4.0	3.0%
Total revenue	\$ 130.2	100.0%	\$ 133.7	100.0%

**Gross Profit and Operating Expenses**

For the year ended December 31, 2016, gross profit margin in the BSI Segment increased to 48.1% from 45.5% in the year ended December 31, 2015. The increase in gross margin percentage was caused primarily by operating cost improvements resulting from recent restructuring and operational initiatives, the impact of pricing increases within the Bruker BioSpin Group and the impact of the Jordan Valley acquisition within the Bruker Nano Group. These effects were partially offset by revenue weakness in certain Bruker Nano and Bruker CALID Group market segments resulting from delays in European academic funding during the first three quarters of 2016. The BEST Segment gross profit margin decreased to 17.1% from 19.5% for the year ended December 31, 2015. Lower gross margins resulted primarily from the completion of the ROSATOM pilot line and the DESY and ITER orders in 2015.

For the year ended December 31, 2016, selling, general and administrative expenses and research and development expenses in the BSI Segment remained consistent at \$524.0 million, or 35.1% of segment revenue, from \$524.2 million, or 35.0% of segment revenue, for the comparable period in 2015. Selling, general and administrative expenses and research and development expenses in the BEST Segment increased to \$15.5 million, or 11.9% of segment revenue, in 2016 compared to \$13.7 million, or 10.2% of segment revenue, in 2015. The increase in BEST Segment operating expenses was primarily attributable to increased costs associated with selective research and development initiatives.

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The following table presents operating income and operating margins on revenue by reportable segment for the years ended December 31, 2016 and 2015 (dollars in millions):

	2016		2015	
	Operating Income	Percentage of Segment Revenue	Operating Income	Percentage of Segment Revenue
BSI	\$ 168.9	11.3%	\$ 133.2	8.9%
BEST	6.6	5.1%	11.5	8.6%
Corporate, eliminations and other (a)	1.7		1.0	
Total operating income	\$ 177.2	11.0%	\$ 145.7	9.0%

(a)

Represents corporate costs and eliminations not allocated to the reportable segments.

BSI operating income for the year ended December 31, 2016 was \$168.9 million, resulting in an operating margin of 11.3%, compared to income from operations of \$133.2 million, resulting in an operating margin of 8.9%, for the year ended December 31, 2015. Our operating margin increased primarily because of the gross profit improvements noted above, as well as operational improvements as a result of our restructuring initiatives.

BEST operating income for the year ended December 31, 2016 was \$6.6 million, resulting in an operating margin of 5.1%, compared to operating income of \$11.5 million, resulting in an operating margin of 8.6%, for the year ended December 31, 2015. The decrease in operating margin is primarily the result of the decreased gross margins as a result of the completion of the ROSATOM pilot line and the DESY and ITER projects in 2015.

**LIQUIDITY AND CAPITAL RESOURCES**

We currently anticipate that our existing cash and credit facilities will be sufficient to support our operating and investing needs for at least the next twelve months. Our future cash requirements could be affected by acquisitions that we may complete, repurchases of our common stock, or the payment of dividends in the future. Historically, we have financed our growth and liquidity needs through cash flow generation and a combination of debt financings and issuances of common stock. In the future, there are no assurances that additional financing alternatives will be available to us, if required, or if available, will be obtained on terms favorable to us.

During the year ended December 31, 2017, net cash provided by operating activities was \$154.4 million, resulting primarily from consolidated net income adjusted for non-cash items of \$195.0 million, offset by a net increase in operating assets and liabilities, net of acquisitions and divestitures, of \$40.6 million. The increase in operating assets and liabilities, net of acquisitions and divestitures, for the year ended December 31, 2017 was primarily caused by an increase in accounts receivables caused by proportionately higher sales late in the fourth quarter of 2017, which was offset in part by the income tax accruals in the fourth quarter of 2017 related to U.S. tax reform legislation, as well as higher compensation and restructuring accruals.

During the year ended December 31, 2016, net cash provided by operating activities was \$130.8 million, resulting primarily from consolidated net income adjusted for non-cash items of \$219.6 million, offset by a net increase in operating assets and liabilities, net of acquisitions and divestitures, of \$88.8 million. The increase in operating assets and liabilities, net of acquisitions and divestitures, for the year ended December 31, 2016 was primarily caused by the timing of customer payments, as the fourth quarter of 2015 included higher than normal collections of receivables, an increase in inventory in 2016 as a result of inventory build for 2017 orders with the Bruker BioSpin

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Group and BEST Segment, income tax payments for audit settlements and withholding tax payments made in the first quarter of 2016 related to the Company's 2015 European cash repatriation.

During the year ended December 31, 2017, net cash used in investing activities was \$30.2 million, compared to net cash used in investing activities of \$21.8 million during the year ended December 31, 2016. Cash used in investing activities during the year ended December 31, 2017 was primarily due to the net cash paid for acquisitions of \$66.3 million and net capital expenditures of \$32.2 million. These activities were offset, in part, by net cash proceeds of short-term investments of \$68.3 million. During the year ended December 31, 2016, net cash used in investing activities was \$21.8 million, compared to net cash used in investing activities of \$102.4 million during the year ended December 31, 2015. Cash used in investing activities during the year ended December 31, 2016 was primarily caused by net capital expenditures of \$36.0 million and cash paid for acquisitions, net of cash acquired, of \$24.3 million offset, in part, by maturities, net of purchases, of short-term investments of \$38.5 million.

We expect capital expenditures in 2018 to amount to approximately \$50.0 million.

During the year ended December 31, 2017, net cash used in financing activities was \$159.0 million, compared to net cash used in financing activities of \$27.9 million during the year ended December 31, 2016. Cash used in financing activities during the year ended December 31, 2017 was primarily caused by the repurchase of common stock of \$152.2 million, \$130.0 million of repayments under the revolving line of credit, \$25.4 million used for the payment of dividends and \$20.0 million of repayments under the Note Purchase Agreement. These cash uses were partially offset by borrowings of \$154.0 million under the revolving line of credit and \$20.0 million of proceeds from the issuance of common stock in connection with stock option exercises. Cash used in financing activities during the year ended December 31, 2016 was primarily caused by the repurchase of common stock of \$160.0 million and \$25.8 million used for the payment of dividends, partially offset by borrowings of \$146.0 million under the revolving line of credit and \$11.5 million of proceeds from the issuance of common stock in connection with stock option exercises.

In May 2017, our Board of Directors approved a share repurchase program (the "Repurchase Program") under which repurchases of common stock in the amount of up to \$225.0 million may occur from time to time, in amounts, at prices, and at such times as we deem appropriate, subject to market conditions, legal requirements and other considerations. A total of 5,318,063 shares were repurchased at an aggregate cost of \$152.2 million as of December 31, 2017 under this Repurchase Program. We intend to fund any additional repurchases from cash on hand, future cash flows from operations and available borrowings under our revolving credit facility.

The repurchased shares are reflected within Treasury stock in the accompanying consolidated balance sheet at December 31, 2017.

Cash, cash equivalents and short-term investments at December 31, 2017 and 2016 totaled \$439.2 million and \$500.3 million, respectively, of which \$405.8 million and \$460.9 million, respectively, related to cash, cash equivalents and short-term investments held outside of the U.S. in our foreign subsidiaries, most significantly in the Netherlands and Switzerland.

At December 31, 2017 and in accordance with the 2017 Tax Act, we recorded state and foreign withholding taxes on the cash and liquid assets portion of the unremitted earnings and profits (E&P) of foreign subsidiaries expected to be repatriated from its foreign subsidiaries to the United States. We continue to be indefinitely reinvested amounting to \$740.0 million of non-cash E&P that is related to the 2017 Tax Act deemed repatriation. If this E&P is ultimately distributed to the United States in the form of dividends or otherwise we would likely be subject to additional withholding tax. We will continue to evaluate our assertions on the cumulative historical outside basis differences in our foreign subsidiaries as of December 31, 2017. We expect to finalize its analysis and accounting related to the toll charge and any remaining outside basis differences in our foreign subsidiaries during the

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measurement period. We estimate the amount of unrecognized deferred withholding taxes on the undistributed E&P to be approximately \$27 million at December 31, 2017.

As of December 31, 2017, we had approximately \$23.2 million of net operating loss carryforwards available to reduce state taxable income. We also had approximately \$77.4 million of German Trade Tax and Corporate Income Tax net operating losses that are carried forward indefinitely. Additionally, we had \$13.9 million of other foreign net operating losses that are expected to expire at various times beginning in 2018. We also had state research and development tax credits of \$7.5 million. Utilization of these credits and state net operating losses may be subject to annual limitations due to the ownership percentage change limitations provided by the Internal Revenue Code Section 382 and similar state provisions. In the event of a deemed change in control under Internal Revenue Code Section 382, an annual limitation on the utilization of net operating losses and credits may result in the expiration of all or a portion of the net operating loss and credit carryforwards.

Uncertain tax contingencies are positions taken or expected to be taken on an income tax return that may result in additional payments to tax authorities. If a tax authority agrees with the tax position taken or expected to be taken or the applicable statute of limitations expires, then additional payments will not be necessary.

At December 31, 2017, we had outstanding debt totaling \$415.6 million, consisting of \$220.0 million outstanding under the Note Purchase Agreement described below, \$195.0 million outstanding under the revolving loan component of the 2015 Credit Agreement described below and \$1.3 million under capital lease obligations and other loans. These amounts were offset by unamortized debt issuance costs under the Note Purchase Agreement of \$0.7 million. At December 31, 2016, we had outstanding debt totaling \$411.7 million, consisting of \$240.0 million outstanding under the Note Purchase Agreement described below, \$171.0 million outstanding under the revolving loan component of the 2015 Credit Agreement described below and \$1.5 million under capital lease obligations and other loans. These amounts were offset by unamortized debt issuance costs under the Note Purchase Agreement of \$0.8 million.

The following is a summary of the maximum commitments and the net amounts available to us under the 2015 Credit Agreement and other lines of credit with various financial institutions located primarily in Germany and Switzerland that are unsecured and typically due upon demand with interest payable monthly, at December 31, 2017 (in millions):

	Weighted Average Interest Rate	Total Amount Committed by Lenders	Outstanding Borrowings	Outstanding Letters of Credit	Total Amount Available
2015 Credit Agreement	2.7%	\$ 500.0	\$ 195.0	\$ 1.1	\$ 303.9
Other lines of credit		257.9		137.7	120.2
<b>Total revolving loans</b>		<b>\$ 757.9</b>	<b>\$ 195.0</b>	<b>\$ 138.8</b>	<b>\$ 424.1</b>

On October 27, 2015, we entered into a revolving credit agreement, referred to as the 2015 Credit Agreement, and terminated the prior credit agreement. The 2015 Credit Agreement provides a maximum commitment on the revolving credit line of \$500.0 million and a maturity date of October 2020. Borrowings under the revolving credit line of the 2015 Credit Agreement accrue interest, at the Company's option, at either (a) the greatest of (i) the prime rate, (ii) the federal funds rate plus 0.50%, and (iii) adjusted LIBOR plus 1.00%, plus margins ranging from 0.00% to 0.30% or (b) LIBOR, plus margins ranging from 0.90% to 1.30%. There is also a facility fee ranging from 0.10% to 0.20%.

Borrowings under the 2015 Credit Agreement are secured by guarantees from certain material subsidiaries, as defined in the 2015 Credit Agreement. The 2015 Credit Agreement also requires us to maintain certain financial ratios related to maximum leverage and minimum interest coverage.

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Specifically, our leverage ratio cannot exceed 3.5 and our interest coverage ratio cannot be less than 2.5. In addition to the financial ratios, the 2015 Credit Agreement contains negative covenants, including among others, restrictions on liens, indebtedness of the Company and its subsidiaries, asset sales, dividends and transactions with affiliates. Failure to comply with any of these restrictions or covenants may result in an event of default on the 2015 Credit Agreement, which could permit acceleration of the debt and require us to prepay the debt before its scheduled due date.

As of December 31, 2017, we were in compliance with the covenants, as defined by the 2015 Credit Agreement, as our leverage ratio was 1.32 and our interest coverage ratio was 15.5.

In January 2012, we entered into a note purchase agreement, referred to as the Note Purchase Agreement, with a group of accredited institutional investors. Under the Note Purchase Agreement we issued and sold \$240.0 million of senior notes, which consist of the following:

\$20.0 million 3.16% Series 2012A senior notes due January 18, 2017;

\$15.0 million 3.74% Series 2012A senior notes due January 18, 2019;

\$105.0 million 4.31% Series 2012A senior notes due January 18, 2022; and

\$100.0 million 4.46% Series 2012A senior notes due January 18, 2024.

On January 18, 2017, the outstanding \$20.0 million principal amount of Tranche A of the Senior Notes was repaid in accordance with the terms of the Note Purchase Agreement.

Under the terms of the Note Purchase Agreement, we may issue and sell additional senior notes up to an aggregate principal amount of \$600 million, subject to certain conditions. Interest on the Senior Notes is payable semi-annually on January 18 and July 18 of each year. The Senior Notes are unsecured obligations of ours and are fully and unconditionally guaranteed by certain of our direct and indirect subsidiaries. The Senior Notes rank pari passu in right of repayment with our other senior unsecured indebtedness. We may prepay some or all of the Senior Notes at any time in an amount not less than 10% of the original aggregate principal amount of the Senior Notes to be prepaid, at a price equal to the sum of (a) 100% of the principal amount thereof, plus accrued and unpaid interest, and (b) the applicable make-whole amount, upon not less than 30 and no more than 60 days written notice to the holders of the Senior Notes. In the event of a change in control of the Company, as defined in the Note Purchase Agreement, we may be required to prepay the Notes at a price equal to 100% of the principal amount thereof, plus accrued and unpaid interest.

The Note Purchase Agreement contains affirmative covenants, including, without limitation, maintenance of corporate existence, compliance with laws, maintenance of insurance and properties, payment of taxes, addition of subsidiary guarantors and furnishing notices and other information. The Note Purchase Agreement also contains certain restrictive covenants that restrict our ability to, among other things, incur liens, transfer or sell assets, engage in certain mergers and consolidations and enter into transactions with affiliates. The Note Purchase Agreement also includes customary representations and warranties and events of default. In the case of an event of default arising from specified events of bankruptcy or insolvency, all outstanding Senior Notes will become due and payable immediately without further action or notice. In the case of payment events of defaults, any holder of Senior Notes affected thereby may declare all Senior Notes held by it due and payable immediately. In the case of any other event of default, a majority of the holders of the Senior Notes may declare all the Senior Notes to be due and payable immediately. Pursuant to the Note Purchase Agreement, so long as any Senior Notes are outstanding we will not permit (i) our leverage ratio, as determined pursuant to the Note Purchase Agreement, as of the end of any fiscal quarter to exceed 3.50 to 1.00, (ii) our interest coverage ratio as determined pursuant to the Note Purchase Agreement as of the end of any fiscal quarter for any period of four consecutive fiscal quarters to be less than 2.50 to 1 or (iii) priority debt

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at any time to exceed 25% of consolidated net worth, as determined pursuant to the Note Purchase Agreement.

As of December 31, 2017, we were in compliance with the covenants of the Note Purchase Agreement. Our leverage ratio (as defined in the Note Purchase Agreement) was 1.32 and our interest coverage ratio (as defined in the Note Purchase Agreement) was 15.5.

The following table summarizes maturities for our significant financial obligations as of December 31, 2017 (dollars in millions):

Contractual Obligations	Total	Less than 1 Year	1-3 Years	4-5 Years	More than 5 Years
Revolving lines of credit	\$ 195.0		\$ 195.0		
Other long-term debt, including current portion	220.6		14.9	104.9	100.8
Interest payable on long-term debt and revolving lines of credit	65.1	14.8	27.9	15.7	6.7
Unconditional purchase commitments (1)	164.0	157.0	6.8	0.2	
Acquisition-related contingent consideration (2)	12.7	6.5	2.9	3.3	
Operating lease obligations	76.9	21.2	27.4	14.7	13.6
2017 Tax Act impact	33.3	2.7	8.0	7.7	14.9
Pension liabilities	45.5	2.7	6.0	8.0	28.8
Uncertain tax contingencies	4.6	1.1	0.9	0.1	2.5
	\$ 817.7	\$ 206.0	\$ 289.8	\$ 154.6	\$ 167.3

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- (1) Unconditional purchase commitments include agreements to purchase goods, services, or fixed assets that are enforceable and legally binding and that specify all significant terms, including: fixed or minimum quantities to be purchased; fixed, minimum or variable price provisions; and the approximate timing of the transaction. Purchase commitments exclude agreements that are cancellable at any time without penalty.
- (2) Acquisition-related contingent considerations represents the estimated fair value of future payments to the former shareholders of applicable acquired companies based on achieving annual revenue and gross margin targets in certain years as specified in the purchase and sale agreements.

### **CRITICAL ACCOUNTING POLICIES AND ESTIMATES**

This discussion and analysis of our financial condition and results of operations is based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America, or U.S. GAAP. The preparation of these financial statements requires that we make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements and reported amounts of revenues and expenses during the reporting period. On an ongoing basis, management evaluates its estimates and judgments, including those related to: revenue recognition; the expensing and capitalization of software development costs; stock-based compensation expense; restructuring and other related charges; income taxes, including the recoverability of deferred tax assets; allowances for doubtful accounts; inventory reductions for excess and obsolete inventories; estimated fair values of long-lived assets used to measure the recoverability of long-lived assets; intangible assets and goodwill; expected future cash flows used to measure the recoverability of intangible assets and long-lived assets; warranty costs; derivative financial instruments; and contingent liabilities. We base our estimates and judgments on our historical experience, current market and economic conditions, industry trends, and other assumptions that we believe are reasonable and form

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the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results could differ from these estimates.

We believe the following critical accounting policies and estimates to be both those most important to the portrayal of our financial position and results of operations and those that require the most estimation and subjective judgment.

*Revenue recognition.* We recognize revenue from system sales when persuasive evidence of an arrangement exists, the price is fixed or determinable, title and risk of loss has been transferred to the customer, and collectability of the resulting receivable is reasonably assured. Title and risk of loss generally transfers upon shipment, or for certain systems, based upon customer acceptance for a system that has been delivered to the customer and installed at a customer facility. For systems that include customer-specific acceptance criteria, we are required to assess when we can demonstrate the acceptance criteria has been met, which generally is upon successful factory acceptance testing or customer acceptance and evidence of installation.

When products are sold through an independent distributor or a strategic distribution partner who assumes responsibility for installation, we recognize the system sale when the product has been shipped and title and risk of loss have been transferred to the distributor. Our distributors do not have price protection rights or rights of return; however, our products are typically warranted to be free from defect for a period of one year. Revenue is deferred until cash is received when collectability is not reasonably assured or when the price is not fixed or determinable.

For transactions that include multiple elements, arrangement consideration is allocated to each element using the fair value hierarchy as required by ASU No. 2009-13. We limit the amount of revenue recognized for delivered elements to the amount that is not contingent on the future delivery of products or services, future performance obligations, or subject to customer-specific return or refund privileges.

We determine the fair value of products and services based upon vendor specific objective evidence ("VSOE"). We determine VSOE based on normal selling pricing and discounting practices for the specific product or service when sold on a stand-alone basis. In determining VSOE, our policy requires a substantial majority of selling prices for a product or service to be within a reasonably narrow range. We also consider the class of customer, method of distribution and the geographies into which products and services are being sold when determining VSOE.

If VSOE cannot be established, we attempt to establish the selling price based on third-party evidence ("TPE"). VSOE cannot be established in instances where a product or service has not been sold separately, stand-alone sales are too infrequent or product pricing is not within a sufficiently narrow range. TPE is determined based on competitor prices for similar deliverables when sold separately.

When we cannot determine VSOE or TPE, we use estimated selling price ("ESP") in our allocation of arrangement consideration. The objective of ESP is to determine the price at which we would typically transact a stand-alone sale of the product or service. ESP is determined by considering a number of factors including our pricing policies, internal costs and gross profit objectives, method of distribution, market research and information, recent technological trends, competitive landscape and geographies. We analyze the selling prices used in our allocation of arrangement consideration, at a minimum, on an annual basis. Selling prices will be analyzed more frequently if a significant change in our business occurs or other factors necessitate more frequent analysis, or if we experience significant variances in our selling prices.

Revenue from accessories and consumable parts is generally recognized upon shipping terms. Service revenue is recognized as the services are performed or ratably over the contractual obligation



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and includes maintenance contracts, extended warranty, training, application support and on-demand services.

We also have contracts for which we apply the percentage-of-completion model and completed contract model of revenue recognition. Application of the percentage-of-completion method requires us to make reasonable estimates of the extent of progress toward completion of the contract and the total costs we will incur under the contract and losses are recorded immediately when we estimate that contracts will ultimately result in a loss. Changes in the estimates could affect the timing of revenue recognition.

Other revenues are primarily comprised of development arrangements recognized on a cost-plus-fixed-fee basis and licensing arrangements recognized ratably over the term of the related contracts.

*Income taxes.* The determination of income tax expense requires us to make certain estimates and judgments concerning the annual effective tax rate, the calculation of deferred tax assets and liabilities, the forecasted profitability of our subsidiaries in certain geographic jurisdictions, as well as the deductions, carryforwards and credits that are available to reduce taxable income. Deferred tax assets and liabilities arise from differences in the timing of the recognition of revenue and expenses for financial statement and tax purposes. Deferred tax assets and liabilities are measured using the tax rates in effect for the year in which these temporary differences are expected to be settled. We estimate the degree to which tax assets and loss carryforwards will result in a benefit based on expected profitability by tax jurisdiction, and we provide a valuation allowance for tax assets and loss carryforwards that we believe will more likely than not go unused. If it becomes more likely than not that a tax asset or loss carryforward will be used for which a valuation allowance has been provided, we reverse the related valuation allowance. If our actual future taxable income by tax jurisdiction differs from estimates, additional allowances or reversals of a valuation allowance may be necessary. In addition, we only recognize benefits for tax positions that we believe are more likely than not of being sustained upon review by a taxing authority with knowledge of all relevant information. We reevaluate our uncertain tax positions on a quarterly basis and any changes to these positions as a result of tax audits, tax laws or other facts and circumstances could result in additional charges or credits to operations. The expiration of statutes of limitations affecting estimates made for uncertain tax positions can cause higher earnings.

On December 22, 2017 (Enactment Date), the President of the United States signed tax reform legislation (2017 Tax Act), which enacted a wide range of changes to the U.S. corporate income tax system, many of which differ significantly from the provisions of the previous U.S. tax law. We have not yet completed the assessment of the tax effects associated with the enactment of the 2017 Tax Act; however, a reasonable estimate has been made of the effects on the existing deferred tax balances and the one-time transition tax. Changes in the tax rates and laws are accounted for in the period of enactment. The actual results of the implementation of the 2017 Tax Act may materially differ from our current estimate due to, among other things, further guidance that may be issued by U.S. tax authorities or regulatory bodies including the SEC and the FASB to interpret the 2017 Tax Act. We will continue to analyze the 2017 Tax Act and any additional guidance that may be issued and finalize the full effects of applying the new legislation in the measurement period.

*Inventories.* Inventories are stated at the lower of cost and net realizable value, with costs determined by the first-in, first-out method for a majority of subsidiaries and by average cost for certain other subsidiaries. We record provisions to account for excess and obsolete inventory to reflect the expected non-saleable or non-refundable inventory based on an evaluation of slow moving products or products no longer offered for sale. Inventories also include demonstration units located in our demonstration laboratories or installed at the sites of potential customers. We consider our demonstration units to be available for sale and have a history of selling these demonstration units. We

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reduce the carrying value of demonstration inventories for differences between cost and estimated net realizable value, taking into consideration usage in the preceding twelve months, expected demand, technological obsolescence and other information including the physical condition of the unit. If ultimate usage or demand varies significantly from expected usage or demand, additional write-downs may be required, resulting in additional charges to operations.

*Goodwill, other intangible assets and other long-lived assets.* We evaluate goodwill for impairment annually and when events occur or circumstances change. We test goodwill for impairment at the reporting unit level, which is the operating segment or one level below an operating segment. Under U.S. GAAP, we have the option of performing a qualitative assessment to determine whether further impairment testing is necessary before performing a two-step quantitative assessment. The qualitative assessment requires significant judgments about macro-economic conditions including the entity's operating environment; its industry and other market considerations; entity-specific events related to financial performance or loss of key personnel; and other events that could impact the reporting unit. If, as a result of our qualitative assessment, it is more-likely-than-not that the fair value of a reporting unit is less than its carrying amount, the quantitative impairment test will be required. Otherwise, no further testing is required. If a quantitative impairment test is performed, the first step involves comparing the fair values of the applicable reporting units with their aggregate carrying values, including goodwill. We generally determine the fair value of our reporting units using a weighting of both the market approach and the income approach methodologies. The income approach valuation methodology includes discounted cash flow estimates. Estimating the fair value of the reporting units requires significant judgment about the future cash flows. If the carrying amount of a reporting unit exceeds the fair value of the reporting unit, we perform the second step of the goodwill impairment test to measure the amount of the impairment. In the second step of the goodwill impairment test, we compare the implied fair value of the reporting unit's goodwill with the carrying value of that goodwill. At December 31, 2017, we performed our annual goodwill and indefinite-lived intangible impairment evaluation using a qualitative impairment test and concluded the fair values of each of our reporting units were significantly greater than their carrying amounts, and therefore, no additional impairment was required.

We also review definite-lived intangible assets and other long-lived assets when indications of potential impairment exist. Should the fair value of our long-lived assets decline because of reduced operating performance, market declines or other indicators of an impairment, a charge to operations for impairment may be necessary.

**RECENT ACCOUNTING PRONOUNCEMENTS**

In January 2017, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2017-04, *Intangibles-Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment*. The new standard simplifies the subsequent measurement of goodwill by eliminating the second step of the goodwill impairment test. This ASU will be applied prospectively and is effective for annual or interim goodwill impairment tests in fiscal years beginning after December 15, 2019. The adoption of this standard is not expected to have a material impact on our financial position, results of operations or statements of cash flows upon adoption.

In January 2017, the FASB issued ASU No. 2017-01, *Business Combinations (Topic 805): Clarifying the Definition of a Business*. This new standard clarifies the definition of a business and provides a screen to determine when an integrated set of assets and activities is not a business. The screen requires that when substantially all of the fair value of the gross assets acquired (or disposed of) is concentrated in a single identifiable asset or a group of similar identifiable assets, the set is not a business. This new standard was adopted as of the effective date of January 1, 2018. We have evaluated the provisions of this standard and have determined that the impact of adoption of ASU No. 2017-01 was not material to our consolidated financial statements.

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In October 2016, the FASB issued ASU No. 2016-16, *Income Taxes (Topic 740) Intra-Entity Transfer of Assets Other than Inventory*. The new standard requires recognition of current and deferred income taxes resulting from an intra-entity transfer of any asset (excluding inventory) when the transfer occurs. This is a change from existing U.S. GAAP which prohibits recognition of current and deferred income taxes until the asset is sold to a third party. This new standard was adopted as of the effective date of January 1, 2018. We have evaluated the provisions of this standard and have determined that the impact of adoption of ASU No. 2016-16 was not material to our consolidated financial statements.

In February 2016, the FASB issued ASU No. 2016-02, *Leases*. The new standard provides guidance on the recognition, measurement, presentation, and disclosure of leases. The new standard supersedes present U.S. GAAP guidance on leases and requires substantially all leases to be reported on the balance sheet as right-of-use assets and lease liabilities, as well as additional disclosures. The new standard is effective as of January 1, 2019, and early adoption is permitted. We are evaluating the provisions of this standard, including which period to adopt, and have not determined what impact the adoption of ASU No. 2016-02 will have on our consolidated financial statements.

In May 2014, the FASB issued ASU No. 2014-09, *Revenue from Contracts with Customers*, which supersedes the revenue recognition requirements under Accounting Standards Codification (ASC) Topic 605. The new guidance was the result of a joint project between the FASB and the International Accounting Standards Board to clarify the principles for recognizing revenue and to develop common revenue standards for U.S. GAAP and International Financial Reporting Standards. The core principle of the new guidance is that revenue should be recognized to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. In August 2015, the FASB elected to defer the effective date of ASU No. 2014-09 by one year to annual periods beginning after December 15, 2017, with early application permitted as of the original effective date. The new guidance may be applied on a retrospective basis for all prior periods presented, or on a modified retrospective basis with the cumulative effect of the new guidance as of the date of initial application. The new guidance will be effective for us as of January 1, 2018 and we currently intend to use the modified retrospective transition method.

We have substantially completed the impact assessment phase of our evaluation of ASU No. 2014-09. Under the new guidance, there are specific criteria to determine if a performance obligation should be recognized over time or at a point in time. Accordingly, we have identified certain project-based orders in the BEST Segment and CBRNE detection orders in the Bruker CALID Group for which the timing of when we recognize revenue may be impacted. Due to the complexity of these project-based orders, revenue recognition under the new standard is highly dependent on specific contract terms.

During the fourth quarter of 2017, we have substantially completed the assessment over the impact that this new standard will have on our consolidated balance sheets. We preliminarily expect to recognize an adjustment of approximately \$6.0 million to retained earnings on January 1, 2018 to reflect the cumulative effect of the accounting changes made upon the adoption of the standard. The finalization of the assessment may result in significant changes to the estimates that may materially impact the preliminary estimate of the cumulative effect.

**TRANSACTIONS WITH RELATED PARTIES**

We lease certain office space from certain of our principal shareholders, including a director and executive officer and another member of our Board of Directors, and members of their immediate families, which have expiration dates ranging from 2017 to 2020. Total rent expense under these leases was \$3.5 million, \$3.9 million and \$1.8 million for the years ended December 31, 2017, 2016 and 2015, respectively.

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During the years ended December 31, 2017, 2016 and 2015, we recorded revenue of \$2.6 million, \$1.1 million and \$0.7 million, respectively, arising from commercial transactions with a life sciences company in which a member of our Board of Directors is Chairman and Chief Executive Officer.

During the year ended December 31, 2016 and 2015, we recorded revenue of \$0.2 million and \$0.5 million, respectively from commercial transactions with a thermal analysis company for which a member of our Board of Directors serves as a consultant.

**ITEM 7A QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

We are potentially exposed to market risks associated with changes in foreign currency translation rates, interest rates and commodity prices. We selectively use financial instruments to reduce these risks. All transactions related to risk management techniques are authorized and executed pursuant to our policies and procedures. Analytical techniques used to manage and monitor foreign currency translation and interest rate risk include market valuations and sensitivity analysis.

**Impact of Foreign Currencies**

We generate a substantial portion of our revenues in international markets, principally Germany and other countries in the European Union, Switzerland and Japan, which exposes our operations to the risk of exchange rate fluctuations. The impact of currency exchange rate movement can be positive or negative in any period. Our costs related to sales in foreign currencies are largely denominated in the same respective currencies, limiting our transaction risk exposure. However, for foreign currency denominated sales in certain regions, such as Japan, where we do not incur significant costs denominated in Japanese Yen, we are more exposed to the impact of foreign currency fluctuations. For sales not denominated in U.S. Dollars, if there is an increase in the rate at which a foreign currency is exchanged for U.S. Dollars, it will require more of the foreign currency to equal a specified amount of U.S. Dollars than before the rate increase. In such cases, if we price our products in the foreign currency, we will receive less in U.S. Dollars than we would have received before the rate increase went into effect. If we price our products in U.S. Dollars and competitors price their products in local currency, an increase in the relative strength of the U.S. Dollar could result in our prices not being competitive in a market where business is transacted in the local currency. In the years ended December 31, 2017 and 2016 our revenue by geography was as follows (dollars in millions):

	2017		2016	
	Revenue	Percentage of Revenue	Revenue	Percentage of Revenue
United States	\$ 434.7	24.6%	\$ 428.2	26.6%
Europe	665.2	37.6%	582.9	36.2%
Asia Pacific	514.8	29.2%	458.1	28.4%
Rest of world	151.2	8.6%	142.1	8.8%
Total revenue	\$ 1,765.9	100.0%	\$ 1,611.3	100.0%

Changes in foreign currency exchange rates increased our revenue by approximately 1.2% in the year ended December 31, 2017 and decreased our revenue by approximately 0.5% in the year ended December 31, 2016.

Assets and liabilities of our foreign subsidiaries, where the functional currency is the local currency, are translated into U.S. Dollars using year-end exchange rates, or historical rates, as appropriate. Revenues and expenses of foreign subsidiaries are translated at the average exchange rates in effect during the year. Adjustments resulting from financial statement translations are included as a separate component of shareholders' equity. In the year ended December 31, 2017, we recorded net gains from currency translation adjustments of \$97.1 million. In the year ended December 31, 2016, we

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recorded net losses from currency translation of \$27.6 million. A 10% depreciation in functional currencies, relative to the U.S. Dollar, at December 31, 2017, would have resulted in a reduction of shareholders' equity of approximately \$137.2 million.

Gains and losses resulting from foreign currency transactions are reported in interest and other income (expense), net in the consolidated statements of income and comprehensive income. Our foreign currency translation gains (losses), net were (\$5.5) million and \$4.1 million for years ended December 31, 2017 and 2016, respectively.

From time to time, we have entered into foreign currency contracts in order to minimize the volatility that fluctuations in exchange rates have on our cash flows related to purchases and sales denominated in foreign currencies. Under these arrangements, we agree to purchase a fixed amount of a foreign currency in exchange for a fixed amount of U.S. Dollars or other currencies on specified dates, typically with maturities of less than twelve months. These transactions do not qualify for hedge accounting and, accordingly, the instrument is recorded at fair value with the corresponding gains and losses recorded in interest and other income (expense), net in the consolidated statements of income and comprehensive income.

At December 31, 2017 and 2016, we had foreign currency contracts with notional amounts aggregating \$84.2 million and \$40.7 million, respectively. At December 31, 2017, the Company had the following notional amounts outstanding under foreign currency contracts (in millions):

Buy	Notional Amount in Buy Currency	Sell	Maturity	Notional Amount in U.S. Dollars	Fair Value of Assets	Fair Value of Liabilities
December 31, 2017:						
Euro	59.5	U.S. Dollars	January 2018	\$ 67.0	\$ 4.5	\$
Swiss Francs	11.0	U.S. Dollars	January 2018	11.3		
Singapore Dolar	4.9	U.S. Dollars	January 2018	3.6		
Euro	1.8	Polish Zloty	January 2018	2.3		0.1
				\$ 84.2	\$ 4.5	\$ 0.1

Based on the contractual maturities of these contracts and exchange rates as of December 31, 2017, we anticipate that these contracts will result in net cash inflows of \$4.4 million in 2018. At December 31, 2017, assuming all other variables are constant, if the U.S. Dollar weakened by 10%, the market value of our foreign currency contracts would have increased by approximately \$8.6 million and if the U.S. Dollar strengthened by 10%, the market value of our foreign currency contracts would have decreased by approximately \$8.6 million.

We will continue to evaluate our currency risks and in the future may utilize foreign currency contracts more frequently as part of a transactional hedging program.

### **Impact of Interest Rates**

We regularly invest excess cash in short-term investments that are subject to changes in interest rates. We believe that the market risk arising from holding these financial instruments is minimal because of our policy of investing in short-term financial instruments issued by highly rated financial institutions.

Our exposure related to adverse movements in interest rates is derived primarily from outstanding floating rate debt instruments that are indexed to short-term market rates. We currently have approximately equal levels of fixed and floating rate debt, which limits our exposure to adverse movements in interest rates.

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**Impact of Commodity Prices**

We are exposed to certain commodity risks associated with prices for various raw materials. The prices of copper and certain other raw materials, particularly niobium-tin, used to manufacture superconductors have increased significantly over the last decade. Copper and niobium-tin are the main components of low temperature superconductors and continued commodity price increases for copper and niobium, as well as other raw materials, may negatively affect our profitability. Periodically, we enter into commodity forward purchase contracts to minimize the volatility that fluctuations in the price of copper have on our sales of these products. At December 31, 2017 and 2016, we had fixed price commodity contracts with notional amounts aggregating \$3.0 million and \$2.7 million, respectively. The fair value of the fixed price commodity contracts at December 31, 2017 and 2016 was \$0.8 million and \$0.2 million, respectively. We will continue to evaluate our commodity risks and may utilize commodity forward purchase contracts more frequently in the future.

**Inflation**

We do not believe inflation had a material impact on our business or operating results during any of the periods presented.

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**ITEM 8 FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA**

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**Report of Independent Registered Public Accounting Firm**

To the Board of Directors and Shareholders of  
Bruker Corporation

***Opinions on the Financial Statements and Internal Control over Financial Reporting***

We have audited the accompanying consolidated balance sheets of Bruker Corporation and its subsidiaries as of December 31, 2017 and 2016, and the related consolidated statements of income and comprehensive income, of shareholders' equity, and of cash flows for the years then ended, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2017, based on criteria established in *Internal Control Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2017 and 2016, and the results of their operations and their cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2017, based on criteria established in *Internal Control Integrated Framework* (2013) issued by the COSO.

***Change in Accounting Principles***

As discussed in Notes 6 and 16 to the consolidated financial statements, respectively, the Company changed the manner in which it accounts for the measurement of inventory and the manner in which it accounts for the income tax effects of share based payment transactions in 2017.

***Basis for Opinions***

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and



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evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

As described in Management's Report on Internal Control over Financial Reporting, management has excluded Hysitron, Incorporated ("Hysitron") from its assessment of internal control over financial reporting as of December 31, 2017 because it was acquired by the Company in a purchase business combination during 2017. We have also excluded Hysitron from our audit of internal control over financial reporting. Hysitron is a wholly-owned subsidiary whose total assets and total revenues excluded from management's assessment and our audit of internal control over financial reporting represent 0.7% and 0.9%, respectively, of the related consolidated financial statement amounts as of and for the year ended December 31, 2017.

***Definition and Limitations of Internal Control over Financial Reporting***

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 (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) 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 (iii) 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.

/s/ PricewaterhouseCoopers LLP  
Boston, Massachusetts  
March 16, 2018

We have served as the Company's auditor since 2016.

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**Report of Independent Registered Public Accounting Firm**

The Board of Directors and Shareholders of  
Bruker Corporation

We have audited the accompanying consolidated statements of income and comprehensive income (loss), shareholders' equity, and cash flows of Bruker Corporation for the year 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 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 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. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated results of Bruker Corporation's operations and its cash flows for the year ended December 31, 2015, in conformity with U.S. generally accepted accounting principles.

/s/ Ernst & Young LLP

Boston, Massachusetts  
February 26, 2016

except for Note 2 Summary of Significant Accounting Policies Restricted Cash , as to which the date is

March 16, 2018

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**BRUKER CORPORATION**  
**CONSOLIDATED BALANCE SHEETS**

(In millions, except share and per share data)

	December 31,	
	2017	2016
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 325.0	\$ 342.4
Short-term investments	114.2	157.9
Accounts receivable, net	319.3	243.9
Inventories	486.2	440.4
Other current assets	114.1	91.3
Total current assets	1,358.8	1,275.9
Property, plant and equipment, net	266.5	239.1
Goodwill	169.8	130.6
Intangible assets, net	82.4	69.7
Deferred tax assets	57.0	76.5
Other long-term assets	14.0	16.6
Total assets	\$ 1,948.5	\$ 1,808.4
<b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>		
Current liabilities:		
Current portion of long-term debt	\$	\$ 20.1
Accounts payable	90.8	86.1
Customer advances	111.7	149.0
Other current liabilities	322.0	269.5
Total current liabilities	524.5	524.7
Long-term debt	415.6	391.6
Long-term deferred revenue	48.7	46.8
Deferred tax liabilities	24.3	10.1
Accrued pension	105.6	102.5
Other long-term liabilities	96.3	39.6
Commitments and contingencies (Note 14)		
Shareholders' equity:		
Preferred stock, \$0.01 par value 5,000,000 shares authorized, none issued or outstanding at December 31, 2017 and 2016		
Common stock, \$0.01 par value 260,000,000 shares authorized, 171,875,076 and 170,552,890 shares issued and 155,865,977 and 159,854,695 outstanding at December 31, 2017 and 2016, respectively	1.7	1.7
Treasury stock at cost, 16,009,099 and 10,698,195 shares at December 31, 2017 and 2016, respectively	(401.2)	(249.3)
Additional paid-in capital	155.9	124.7
Retained earnings	942.0	885.2
Accumulated other comprehensive loss	27.0	(75.9)
Total shareholders' equity attributable to Bruker Corporation	725.4	686.4

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Noncontrolling interest in consolidated subsidiaries	8.1	6.7
Total shareholders' equity	733.5	693.1
Total liabilities and shareholders' equity	\$ 1,948.5	\$ 1,808.4

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

Table of Contents**BRUKER CORPORATION****CONSOLIDATED STATEMENTS OF INCOME AND COMPREHENSIVE INCOME**

(In millions, except per share data)

	Year Ended December 31,		
	2017	2016	2015
Product revenue	\$ 1,479.5	\$ 1,345.4	\$ 1,381.1
Service revenue	278.2	254.7	235.5
Other revenue	8.2	11.2	7.2
<b>Total revenue</b>	<b>1,765.9</b>	<b>1,611.3</b>	<b>1,623.8</b>
Cost of product revenue	790.7	714.2	774.2
Cost of service revenue	160.8	150.0	139.7
Cost of other revenue	1.4	4.6	1.3
<b>Total cost of revenue</b>	<b>952.9</b>	<b>868.8</b>	<b>915.2</b>
<b>Gross profit</b>	<b>813.0</b>	<b>742.5</b>	<b>708.6</b>
Operating expenses:			
Selling, general and administrative	415.9	390.5	392.2
Research and development	162.7	149.0	145.7
Other charges, net	19.7	25.8	25.0
<b>Total operating expenses</b>	<b>598.3</b>	<b>565.3</b>	<b>562.9</b>
<b>Operating income</b>	<b>214.7</b>	<b>177.2</b>	<b>145.7</b>
Interest and other income (expense), net	(16.9)	0.4	(17.7)
<b>Income before income taxes and noncontrolling interest in consolidated subsidiaries</b>	<b>197.8</b>	<b>177.6</b>	<b>128.0</b>
Income tax provision	117.5	23.1	23.1
<b>Consolidated net income</b>	<b>80.3</b>	<b>154.5</b>	<b>104.9</b>
Net income attributable to noncontrolling interest in consolidated subsidiaries	1.7	0.9	3.3
<b>Net income attributable to Bruker Corporation</b>	<b>\$ 78.6</b>	<b>\$ 153.6</b>	<b>\$ 101.6</b>
Net income per common share attributable to Bruker Corporation shareholders:			
Basic	\$ 0.50	\$ 0.95	\$ 0.60
Diluted	\$ 0.49	\$ 0.95	\$ 0.60
Weighted average common shares outstanding:			
Basic	158.1	161.4	168.2
Diluted	159.1	162.2	169.1
<b>Consolidated net income</b>	<b>\$ 80.3</b>	<b>\$ 154.5</b>	<b>\$ 104.9</b>
Foreign currency translation adjustments	97.1	(27.6)	(63.8)

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Pension liability adjustments (net of tax of \$2.9 million, \$2.1 million and \$2.1 million, respectively)	6.5	(4.4)	(9.6)
Net comprehensive income	183.9	122.5	31.5
Less: Comprehensive income attributable to noncontrolling interests	2.4	0.6	2.3
Comprehensive income attributable to Bruker Corporation	\$ 181.5	\$ 121.9	\$ 29.2
Dividend declared per common share	\$ 0.16	\$ 0.16	\$

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

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**BRUKER CORPORATION**  
**CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY**  
(In millions, except share data)

	Common		Treasury		Additional	Retained	Accumulated	Total Shareholders' Equity Noncontrolling Interests		Total
	Common	Stock	Treasury	Stock	Paid-In	Earnings	Other	to	in	Shareholders'
	Shares	Amount	Shares	Amount	Capital		Income	Corporation	Subsidiaries	Equity
Balance at December 31, 2014	168,527,584	\$ 1.7	55,404	\$ (0.9)	\$ 81.1	\$ 655.8	\$ 28.2	\$ 765.9	\$ 5.8	\$ 771.7
Restricted shares issued	135,677									
Restricted shares terminated	(145,857)		145,857							
Stock options exercised	926,042				10.8			10.8		10.8
Stock based compensation					8.0			8.0		8.0
Excess tax benefit related to exercise of stock awards					2.2			2.2		2.2
Shares repurchased	(4,082,042)		4,082,042	(89.9)				(89.9)		(89.9)
Treasury stock acquired	(7,224)		7,224	(0.1)				(0.1)		(0.1)
Distributions to noncontrolling interests									(1.3)	(1.3)
Consolidated net income						101.6		101.6	3.3	104.9
Other comprehensive income (loss)							(72.4)	(72.4)	(1.0)	(73.4)
Balance at December 31, 2015	165,354,180	\$ 1.7	4,290,527	\$ (90.9)	\$ 102.1	\$ 757.4	\$ (44.2)	\$ 726.1	\$ 6.8	\$ 732.9
Restricted shares issued	13,105									
Restricted shares terminated	(1,375)		1,375							
Stock options exercised	895,078				12.0			12.0		12.0
Stock based compensation					9.4			9.4		9.4
Excess tax benefit related to exercise of stock awards					1.3			1.3		1.3
Shares issued for acquisition	90,066		(90,066)	2.1	(0.1)			2.0		2.0
Shares repurchased	(6,475,480)		6,475,480	(160.0)				(160.0)		(160.0)
Treasury stock acquired	(20,879)		20,879	(0.5)				(0.5)		(0.5)
Distributions to noncontrolling interests									(0.7)	(0.7)
Cash dividends paid to common stockholders						(25.8)		(25.8)		(25.8)
Consolidated net income						153.6		153.6	0.9	154.5
Other comprehensive income (loss)							(31.7)	(31.7)	(0.3)	(32.0)
Balance at December 31, 2016	159,854,695	\$ 1.7	10,698,195	\$ (249.3)	\$ 124.7	\$ 885.2	\$ (75.9)	\$ 686.4	\$ 6.7	\$ 693.1
Restricted shares terminated	(4,053)		4,053							
Stock options exercised	1,263,767				20.4			20.4		20.4
Restricted stock units vested	58,419				(0.3)			(0.3)		(0.3)
Stock based compensation					11.0			11.0		11.0
Excess tax benefit related to exercise of stock awards						3.6		3.6		3.6
Shares issued for acquisition	18,110		(18,110)	0.5	0.1			0.6		0.6
Shares repurchased	(5,318,063)		5,318,063	(152.2)				(152.2)		(152.2)
Treasury stock acquired	(6,898)		6,898	(0.2)				(0.2)		(0.2)
Distributions to noncontrolling interests									(1.0)	(1.0)
Cash dividends paid to common stockholders						(25.4)		(25.4)		(25.4)
Consolidated net income						78.6		78.6	1.7	80.3
Other comprehensive income (loss)							102.9	102.9	0.7	103.6

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Balance at December 31, 2017 155,865,977 \$ 1.7 16,009,099 \$ (401.2)\$ 155.9 \$ 942.0 \$ 27.0 \$ 725.4 \$ 8.1 \$ 733.5

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



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**BRUKER CORPORATION**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**

(In millions)

	Year Ended December 31,		
	2017	2016	2015
Cash flows from operating activities:			
Consolidated net income	\$ 80.3	\$ 154.5	\$ 104.9
Adjustments to reconcile consolidated net income to cash flows from operating activities:			
Depreciation and amortization	63.9	54.3	53.3
Stock-based compensation expense	11.0	9.4	8.0
Deferred income taxes	28.2	(22.7)	(29.4)
Gain (loss) on disposal of product lines			0.2
Impairment and other non-cash expenses, net	11.6	24.1	45.9
Changes in operating assets and liabilities, net of acquisitions:			
Accounts receivable	(55.5)	(8.4)	45.0
Inventories	(6.6)	(43.2)	(5.4)
Accounts payable and accrued expenses	33.7	(19.6)	12.6
Income taxes payable, net	5.2	(26.8)	22.7
Deferred revenue	4.0	4.9	3.8
Customer advances	(27.8)	(7.3)	1.4
Other changes in operating assets and liabilities, net	6.4	11.6	(33.8)
<b>Net cash provided by operating activities</b>	<b>154.4</b>	<b>130.8</b>	<b>229.2</b>

Cash flows from investing activities: